

DETAIL OF SPECIES CONSERVED

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INTRODUCTION

Our lives depend on plants and without them, the ecosystem would cease to function. Our survival and survival of all species is tied to plants. The Research Wing of Uttarakhand Forest department strives to check the rate of plant diversity loss, while having a positive vision to have a sustainable future where plant species are able to thrive and be maintained (including preservation of their communities and habitats, plants' gene pool and ecological associations), and, which in turn improves diversity of plant species and supports the livelihoods and well being of humankind.

MISSION

Our mission is to discover and share knowledge about plants and their environment in order to preserve and enrich life. Plant diversity, the world's greatest renewable natural resource, is being lost at an alarming rate, and we must act with the greatest urgency to document and conserve it before it is too late. The Research Wing of Uttarakhand Forest Department has recognized and accepted its responsibility to stem the loss of biodiversity and cultural diversity, actively conserve rare and endangered plants, apply adaptive management approaches to natural area conservation, preserve regional diversity and be an effective leader, mentor, and practitioner of environmental protection at home and throughout the state

GOALS

The core of our conservation programme, for the State of Uttarkhand, is five goals, expressed as a total of 15 targets. The five objectives and their 15 targets for 2021 are

Objective I: Plant diversity is well understood, documented and recognized

Target 1: An online flora of all known plants.

Target 2: An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action.

Target 3: Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared.

Objective II: Plant diversity is urgently and effectively conserved

Target 4: A reasonable portion of each ecological region or vegetation type secured through effective management and/or restoration.

Target 5: An appropriate part of the most important areas for plant diversity of each ecological region, is protected with effective management in place for conserving plants and their genetic diversity.

Target 6: An appropriate part of known threatened plant species conserved in situ.

Target 7: A significant part of threatened plant species grow in ex situ collections, preferably near areas of origin, and a portion of it is available for recovery and restoration programmes.

Target 8: Genetic diversity of wild relatives of crops and other socio economically valuable plant species is conserved, while associated indigenous and local knowledge is respected, preserved and maintained.

Target 9: Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded.

Objective III: Plant diversity is used in a sustainable and equitable manner

Target 10: No species of wild flora endangered by illegal trade.

Target 11: All wild harvested plant based products are sourced sustainably.

Target 12: Indigenous and local knowledge innovations and practices associated with plant resources maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care.

Objective IV: Education and awareness about plant diversity, its role in sustainable livelihoods and importance to all life on earth is promoted

Target 13: The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes.

Objective V: To develop the capacities and public engagement necessary to implement the strategy.

Target 14: The number of trained people working with appropriate facilities sufficient according to needs of State, to achieve the targets of this Strategy.

Target 15: Institutions, networks and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy.

PLANT BLINDNESS

This term was coined in 1998 by Elisabeth Schussler and James Wandersee, a pair of US botanists and biology educators. They described it as “the inability to see or notice the plants in one’s own environment”.

Plant blindness, results in an under appreciation of plants – and in a **limited interest in plant conservation**. Plant conservation not only matters for environmental health but also, for human health, in the long run.

Plant research is critical to many **scientific breakthroughs**, from hardier food crops to more effective medicines. **More than 28,000 plant species** are used medicinally, including plant derived anti cancer drugs and blood thinners.

Experimenting on plants also offers an ethical advantage over some forms of animal testing: versatile techniques in areas like genome editing can be refined using plants, which are easy and inexpensive to breed and control. For instance, the genome sequencing of Arabidopsis, a flowering plant important in biology research, was a landmark not only in plant genetics, but **in genome sequencing in general**.

In human societies, there is also a constant reinforcement of the idea that animals are fundamentally more interesting and visible than plants. We name animals and assign them human characteristics. We often use animals as sport team mascots and we’re attuned to individual variation among animals: the personality of a dog, say, or the unique colour pattern of a butterfly.

Even within animal conservation, certain charismatic animals (particularly large mammals with **forward facing eyes**) receive the lion’s share of attention. Indeed, Williams’ research has shown that people are more supportive of conservation efforts for species **with human like characteristics**.

Increased urbanisation and time spent with devices means that Plant blindness is on the rise. As Schussler has explained, “**humans can only recognise (visually) what they already know**”.

The challenge is magnified for plants. For example, in 2011 plants made up 57% of the federal endangered species list in the US, but they received **less than 4%** of federal endangered species funding.

One key to reduce plant blindness is to increase the frequency and variety of ways we see plants. This should start early. It is important to get children involved with plants early, such as on nature walks.

Everyday interactions with plants is the best strategy.

Plants could also be emphasised more in art. Visuals and stories are important for getting students to connect with plants and to start asking questions about plants' experiences, such as how plants get old.

In India, the human plant link is more about religion and medicine. Plants are deeply intertwined in so many aspects of Indian cultural life.

From mythological perspectives, trees, leaves and flowers would all be significant, but from medicinal perspectives in Ayurveda, many other parts of the plants have value – leaves, roots, flowers and seeds.

BIODIVERSITY IN UTTARAKHAND

Uttarakhand being a part of Indian Himalayan Region (IHR) is home to vast variety and unique range of floral and faunal diversity of India as the State is uniquely endowed with diverse assemblage of natural ecosystems. According to scientific studies, the diversity under 1503 genera and 2133 families of flowering plants, including 93 endemic species is harboured in various vegetation types, ranging from sub tropical forests in upper Gangetic plain and Shiwaliks zone in the south to arctic alpine vegetation of trans Himalayan cold desert in the north in Uttarkhand.

SUMMARY OF SPECIES CONSERVED

Research wing of Uttarakhand Forest Department has conserved total 2035 species through in situ and ex situ conservation measures.

Out of these, 1939 species have been identified and 96 are yet to be identified.

A total of 12 species among these are critically endangered, 24 species are endangered; 13 species are vulnerable and 14 are near threatened as per IUCN categorization; while 1 species is endangered, 3 species are vulnerable, and 5 species are rare as per ENVIS; and 5 are critically endangered, 7 are endangered, 5 are vulnerable as per BSI; 13 species are threatened as per Uttarakhand Biodiversity Board list and 1 species is critically endangered, 1 species are endangered , 1 species are vulnerable and 2 species are rare as per Indian Biodiversity Portal.

Further, out of 2035 total conserved species, 57 species are endemic, of which 25 are near endemic, 7 species are endemic to Uttarakhand, and 15 are endemic to Indian Himalayan Region and 10 species are endemic to India.

A total of 579 species conserved, have medicinal properties.

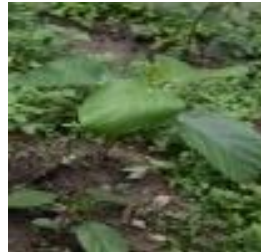
- **Tree species:** Total number of tree species conserved is 468 out of which 440 have been identified and 28 are yet to be identified. There are 107 Ficus species out of which 81 have been identified and 26 are yet to be identified; 8 Oak species; 22 Pine species; 7 Rhododendron species, and 324 other tree species. Out of these, 2 is critically endangered, 5 are endangered, 8 are vulnerable and 7 are near threatened species as per IUCN categorization; 2 species are threatened as per Uttarakhand Biodiversity Board; 3 are endangered as per BSI; 1 species is endangered, 1 is vulnerable, 3 are rare as per ENVIS and 1 is critically endangered, 1 is endangered and 1 is vulnerable as per Indian Biodiversity Portal. Out of the total tree species, 27 species are endemic/ near endemic to Uttarakhand, and 210 species have medicinal properties.
- **Herb species:** Total number of herb species conserved is 177. A total of 5 species are critically endangered, 3 species are endangered, 1 is Vulnerable as per IUCN categorization; 5 species are threatened as per Uttarakhand Biodiversity Board; 5 species are critically endangered, 2 are endangered as per BSI; 2 are vulnerable, as per ENVIS and 1 is rare and 1 is vulnerable as per Indian Biodiversity Portal. Out of the total herb species conserved 9 species are endemic/near endemic to Uttarakhand and 8 are endemic to Indian Himalayan Region and 138 have medicinal properties. Out of total species, 69 are aromatic species.

- **Shrub species:** Total number of shrub species conserved is 161. A total of 3 species are endangered as per IUCN; 1 species is threatened as per Uttarakhand Biodiversity Board and 1 is vulnerable as per Indian Biodiversity Portal. Out of the total shrub species conserved, 12 species are endemic and 101 have medicinal properties. Out of total 161 species, 19 are Tulsi species and 26 are other aromatic species.
- **Bamboo species:** Total number of bamboo species conserved is 46. Out of these, 2 species are endemic to India and 3 species have medicinal properties.
- **Wild climbers:** Total number of wild climber species conserved is 86. A total of 85 species have been identified and 1 species is yet to be identified. Out of the total wild climbers conserved, 57 species have medicinal properties.
- **Cane species:** Total number of cane species conserved is 12. Out of these, 1 species is critically endangered, and 1 is vulnerable species as per IUCN categorization.
- **Grass species:** Total number of grass species conserved is 107 out of which 94 species have been identified and 13 are yet to be identified. A total number of 15 species have medicinal properties.
- **Fern species:** Total number of fern species conserved is 179 out of which 159 species have been identified and 20 are yet to be identified. 1 species is threatened as per Uttarakhand Biodiversity Board. Out of the total fern species, 1 is pan endemic and 25 species have medicinal properties.
- **Orchid species:** Total number of orchid species conserved is 110. Out of these, 46 species come under Appendix II of CITES, 1 species is critically endangered, 1 species is vulnerable as per IUCN categorization, 3 are threatened as per State Biodiversity Board and 1 species is vulnerable, 1 is rare as per ENVIS and 1 is vulnerable and 2 are rare as per Indian Biodiversity Portal. Out of the total orchid species conserved, 2 species are endemic and 20 have medicinal properties.
- **Alpine flowers:** Total number of Alpine flower species conserved is 14. Out of these, 1 species comes under Appendix II of CITES. Out of these, 1 species is endangered as per IUCN categorization, while 1 species is rare as per ENVIS and 2 species are critically endangered, 4 species are endangered according to various research papers. Out of total alpine flower species, 8 species have medicinal properties.
- **Wild flowers:** Total number of wild flower species conserved is 40. Out of this, 1 species is extinct in wild, as per IUCN categorization. Out of the total conserved wild flower species, 12 species have medicinal properties.
- **Palm species:** Total number of palm species conserved is 87. A total number of 4 species are critically endangered, 2 species are endangered, 3 species are vulnerable and 7 species are near threatened as per IUCN categorization, while 1 is rare as per ENVIS, 1 is threatened as per Uttarakhand Biodiversity Board and 1 is rare as per Indian Biodiversity Portal. Out of the total palm species, 1 is endemic to Uttarakhand.
- **Cycad species:** There are 18 species of Cycad. A total of 16 species have been identified and 2 is yet to be identified. A total number of 5 species are endangered, and 1 is near threatened species as per IUCN categorization.

- **Cactus and succulent species:** Total number of cactus and succulent species conserved is 264. There are 145 succulent species out of which 136 have been identified and 10 are yet to be identified, and there are total 119 cactus species out of which 110 species have been identified and 9 are yet to be identified. Out of this, 1 cactus species is endangered as per IUCN categorization and 1 is endemic.
- **Aquatic species:** Total number of aquatic species conserved is 50. A total of 48 species have been identified and 2 species is yet to be identified and 4 species have medicinal properties.
- **Insectivorous species:** Total number of insectivorous species conserved is 28. Out of the total insectivorous species, 3 species are endemic to the Indian Himalayan Region and 1 has medicinal properties.
- **Lichen species:** Total number of lichen species conserved is 85. Out of these, 1 species has medicinal properties.
- **Bryophyte species:** Total number of moss species conserved is 53, liverwort species are 23 and hornwort species are 2.
- **Other species:** Total number of air plant species being conserved is 15 and 10 algae species have also been conserved.

I. Tree Species Tree Species being conserved across all the research Ranges with the prominent areas are at Arboratum (Haldwani & Jeolikot), Ficus Garden (Lalkuan), Pinatum (Kalika), Oak Conservation Area (Kalika) and Rododendron Demonstration Area (Munsyari).

I.Ficus:

S. No	Family; Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS /Uttarakhand Govt./ Indian Biodiversity Portal)	Nursery												Experiment Site	Preserv ation Plot	Grand Total	Use	Native Region		
				Nursery Name																	Total	
				1		2		3		4		5		6								
				Nursery. Name	No. Of Plant	Nursery . Name	No. Of Plant	Nursery. Name	No. Of Plant	Nurser y. Name	No. Of Plant	Nurser y.Name	No. Of Plant	Nurser y. Name	No. Of Plant							
1.	Moraceae ; <i>Ficus rumphii</i> Blume	 Pilkhan		Gaja	255											255	5(Trishula comp. 1 K.W.L.D); 1(Arboretum at Gaja); 1(Ficus Garden, Lalkuan); 20 (Riparian plot)		283	Fodder	India, Bhutan, Myanmar and Nepal.	
2.	Moraceae ; <i>Ficus religiosa</i> L.	 Peepal		Mandal	40	Kalsi	78	Lalkuan	7	Kalsi	78	Shya mpur	100			203	25(Trishula comp. 1 K.W.L.D) 1(Arboretum at Gaja); 1 (Nav GrahaVaatika)/ 2 (SarvDharmVaatika)/ 1 (Panchvati); 1(Ficus Garden, Lalkuan)/ 1 (Buddha vaatika);20 (Riparian plot)		323	Medicinal	SE Asia, Southwest China, India and Himalayan foothills.	
3.	Moraceae; <i>Ficus auriculata</i> Lour.	 Timla		Mandal	330	Tangsa	50	Kalsi	451	Gaja	27 78	Kalika	611	Dwa rson	85	4305	371 (Trishula comp. 1 K.W.L.D) ; 1(Ficus Garden, Lalkuan) 32 plants (Miyawaki Experiment); 1(Arboretum at Gaja); 52(Ficus Garden, Lalkuan)		4762	Edible and Fodder	India (Outer Himalaya), Pakistan, S. China, Myanmar and Thailand.	

4.	Moraceae ; <i>Ficus neriifolia</i> J.E. Sm.	 Dudhla		Kalsi	38										38	7(Trishula comp. 1 K.W.L.D) 7(Ficus Garden, Lalkuan)		46	Fodder	Near Endemic.
5.	Moraceae; <i>Ficus palmata</i> Forssk.	 Bedu		Mandal	450	Kalika	1051	Dwars on	517	Kalsi	25	Gaja	9		2052	190(Trishula comp. 1 K.W.L.D); 6(Ficus Garden, Lalkuan)		2248	Edible, Fodder and Medicinal	Uttarakhand in Mid Himalayan region. Pakistan and Nepal.
5A	Moraceae; <i>Ficus palmata</i> (Local)	 Punjab Fig														56 plants (Miyawaki Experiment); 1 (Arboretum at Gaja); 8 (Miyawaki); 7 (Ficus garden, Lalkuan)		72	Edible and Medicinal	Commonly found in Uttarakhand in Mid himalayan region.
5B	Moraceae; <i>Ficus palmata</i> (Doiwalal)	 Punjab Fig														11 (Ficus Garden, Lalkuan)		11	Edible and Medicinal	Native to India
6.	Moraceae; <i>Ficus hispida</i> L.F.	 Titmila	Least concern (as per IUCN)	Gaja	107										107	77 (Trishula comp. 1 (K.W.L.D) ; 1(Arboretum at Gaja); 8(Ficus Garden, Lalkuan)		194	Fodder	India, Pakistan, Sri Lanka and Bhutan.

7.	Moraceae; <i>Ficus cunia</i> Buch. ham ex Roxb.	 Khaina		Mandal	20	Gaja	32	Lalkuan	81							133	29(Trishula comp. 1 K.W.L.D); 1(Arboretum at Gaja); 24(Ficus Garden, Lalkuan)		188	Fodder	Nepal to S.China and Malaysia.
8.	Moraceae; <i>Ficus clavata</i> Wall. ex Miq	 Chachari		Mandal	90	Gaja	120									210	71(Trishula comp. 1 K.W.L.D); 1(Arboretum at Gaja); 21(Ficus Garden, Lalkuan)		303	Fodder	India, Nepal, China and Myanmar.
9.	Moraceae; <i>Ficus virens</i> Aiton	 Pakhar															24(Trishula comp. 1 K.W.L.D); 1(Ficus Garden, Lalkuan)		26	Fodder	Southwest Asia.
10	Moraceae; <i>Ficus benghalensis</i> L.	 Bargad		Gaja	23	Lalkuan	5									28	1(Trishula comp. 1 K.W.L.D); 1(Arboretum at Gaja); 1 (NakshtraVaatika) 3 (SarvDharm Vaatika); 1 (Ficus Garden, Lalkuan)/1 (Buddha vaatika); 20(Riparian Plot); 10 (Public Health Garden)		57	Religious and Medicinal	Indian Subcontinent.
11.	Moraceae; <i>Ficus benghalensis</i> var. variegated																1(Ficus Garden, Lalkuan)		1	Medicinal	

12.	Moraceae; <i>Ficus benghalensis</i> <i>var. krishnae</i> (C. DC.) Syn . <i>Ficus krishnae</i> C. DC.Bull.	 Indian banyan		Lalkuan	8										8	1(Arboretum at Gaja); 1 (Arboretum); 1(Sarv Dharmvaatika) 3 (Ficus Garden, Lalkuan)		14	Medicinal	India, Malaysia and Sri Lanka.
13.	Moraceae; <i>Ficus gibbosa</i> Blume	 Chachhari		Kalsi	8										8	1(Ficus Garden, Lalkuan)		9	Fodder and Medicinal	India, Nepal, Myanmar, Sri Lanka and Vietnam.
14.	Moraceae; <i>Ficus tinctoria</i> G. subsp. <i>gibbosa</i> Blume	 Dye Fig														1(Ficus Garden, Lalkuan);		1		India, Nepal, Myanmar, Sri Lanka and Vietnam.
15.	Moraceae; <i>Ficus infectoria</i> Willd.	 Pakhad		Gaja	341										341	2(Arboretum at Gaja); 1 (Nakshtra Vaatika); 5(Ficus Garden, Lalkuan)		349	Fodder	India, (Central, Western and Southern regions) Sri Lanka and Myanmar.
16.	Moraceae; <i>Ficus infectoria</i> Roxb. var. <i>caulocarpa</i> (Miq) King	 White Fig														1(Ficus Garden, Lalkuan)		1	Edible, Medicinal and Fuelwood	India, Japan, Sri Lanka and Myanmar.

17.	Moraceae; <i>Ficus racemosa</i> L.	 Gular														1(Arboretum at Gaja); 1 (Nav Graha Vaatika) 1 (Nakshtra Vaatika) 17 (Miyawaki)		20	Fodder	India, Nepal, Pakistan, Myanmar and China.
18.	Moraceae; <i>Ficus carica</i> L.	 Anjir	Least concern (IUCN)	Lalkuan	50											1(Arboretum at Gaja); 1 (Sarv Dharm Vaatika); 4(Ficus Garden, Lalkuan); 5 (Public Health Garden)		61	Edible and fruit	India, West Asia, Turkey to Afghanistan.
19.	Moraceae; <i>Ficus carica</i>	 Common fig														2(Ficus Garden, Lalkuan)		2	Edible and Medicinal	India, West Asia, Turkey to Afghanistan.
20.	Moraceae; <i>Ficus carica</i>	 Common fig														1(Ficus Garden, Lalkuan)		1	Edible and Medicinal	India, West Asia, Turkey to Afghanistan.
21.	Moraceae; <i>Ficus lyrata</i> Warb.	 Fiddle leaf fig														4(Arboretum at Gaja); 2(Ficus Garden, Lalkuan)		6	Rubber	Native to Western Africa.
22.	Moraceae; <i>Ficus nervosa</i> B.Heyne ex Roth	 Nervosa														1(Arboretum at Gaja); 1(Ficus Garden, Lalkuan)		2	Medicinal	India, Nepal, Sri Lanka and China.

23.	Moraceae; <i>Ficus foveolata</i> Wall. ex Miq. var. <i>maliformis</i> King			Gaja	157										157	1(Arboretum at Gaja) 4(Ficus Garden, Lalkuan)		162	Medicinal	India , Bhutan, China and Myanmar.
		Betuliwali bel																		
24.	Moraceae; <i>Ficus arnottiana</i> (Miq.) Miq.															1 (Arboretum, Haldwani); 2(Ficus Garden, Lalkuan)		3	Fodder and Medicinal	India, Nepal and Sri Lanka.
		Paras pipal																		
25.	Moraceae; <i>Ficus mysorensis</i> Heyne ex Roth															1 (Arboretum, Haldwani), 1(Ficus Garden, Lalkuan)		2	Edible and Medicinal	India, Bangladesh, Malaysia, Myanmar and Sri Lanka.
		Mysore bargad																		
26.	Moraceae; <i>Ficus lutea</i> Vahl		Least Concern (IUCN)													1(Ficus Garden, Lalkuan)		1	Medicinal and Dye	Eastern Cape of South Africa to Tropical Africa
		Giant leaved fig																		
27.	Moraceae; <i>Ficus scandens</i> Roxb.															2(Ficus Garden, Lalkuan)		2	Medicinal	India, China, Nepal, Myanmar, Bhutan and Thailand.
		Creeping fig or Climbing fig																		

28.	Moraceae; <i>Ficus scandens</i> var. variegated															1(Ficus Garden, Lalkuan)				India, China, Nepal, Myanmar, Bhutan and Thailand.
29.	Moraceae; <i>Ficus tsjahela</i> Roxb.ex Buch. Ham.	 Karal Fig														1(Ficus Garden, Lalkuan)		1		India and Sri Lanka.
30.	Moraceae; <i>Ficus talbotii</i> King	 Talbot Fig														1(Ficus Garden, Lalkuan)		1		South India, Sri Lanka and Myanmar.
31.	Moraceae; <i>Ficus andamanica</i> Corner		Endangered (IUCN)													1(Ficus Garden, Lalkuan)		1		Endemic to India.
32.	Moraceae; <i>Ficus cyathistipula</i> Warb.															1(Ficus Garden, Lalkuan)		1		Native to the tropical forest regions of Africa.
33.	Moraceae; <i>Ficus saemocarpa</i> Miq,															10(Ficus Garden, Lalkuan)		10	Edible and Fodder	India, Bhutan China, Nepal and Myanmar.

34.	Moraceae; <i>Ficus exasperata</i> Vahl	 Sandpaper fig															11(Ficus Garden, Lalkuan)		11	Medicinal	India (Nicobar Islands and Southern region) Sri Lanka.
35.	Moraceae; <i>Ficus ovata</i> Vahl																1(Ficus Garden, Lalkuan)		1	Medicinal	Native to Mozambique.
36.	Moraceae; <i>Ficus altissima</i> Blume	 Council tree															1(Ficus Garden, Lalkuan)		1	Medicinal	Native to Southeast Asia.
37.	Moraceae; <i>Ficus hirta</i> Vahl																1(Ficus Garden, Lalkuan)		1	Medicinal	India, China, Indochina and Myanmar.
38.	Moraceae; <i>Ficus elastica</i> Roxb. (black)	 Rubber fig															1(Ficus Garden, Lalkuan)		1	Edible and Medicinal	India, Bhutan, Myanmar and Nepal.
39.	Moraceae; <i>Ficus elastica</i> var. variegated	 Rubber fig															1(Ficus Garden, Lalkuan)		1	Edible and Medicinal	India, Bhutan, Myanmar and Nepal.

40.	Moraceae; <i>Ficus elastica</i> var. decora	 Rubber fig														1(Ficus Garden, Lalkuan)		1	Edible and Medicinal	India, Bhutan, Myanmar and Nepal.
41.	Moraceae; <i>Ficus elastica</i> var. green	 Rubber fig														1(Ficus Garden, Lalkuan)		1	Edible and Medicinal	India, Bhutan, Myanmar and Nepal.
42.	Moraceae; <i>Ficus elastica</i> var.rubra	 Rubber fig														1(Ficus Garden, Lalkuan)		1	Edible and Medicinal	India, Bhutan, Myanmar and Nepal.
43.	Moraceae; <i>Ficus maclellandii</i> King	 Alii Fig or Banana Leaf Fig														1(Ficus Garden, Lalkuan)		1	Ornament al	India (Assam and Meghalaya) Myanmar.
44.	Moraceae; <i>Ficus starlight</i>															13(Ficus Garden, Lalkuan)		13	Ornament al	Native to Asia and Australia.
45.	Moraceae; <i>Ficus microcarpa</i> L. f.	 Chinese banyan														1(Ficus Garden, Lalkuan))		1	Medicinal and Fuelwood	India, Bhutan, China, Japan, Nepal, Sri Lanka, Malaysia and Taiwan.

46.	Moraceae; <i>Ficus retusa</i> L.															3(Ficus Garden, Lalkuan)		3	Ornament al	Malaysia
47.	Moraceae; <i>Ficus racemosa</i> L.	 Cluster fig tree, Indian fig or goolar fig		Lalkuan	52										52	4 (Ficus Garden, Lalkuan)		56	Edible and Medicinal	India (Outer Himalaya to plains and low hills) Pakistan, Nepal, Myanmar and Sri Lanka.
48.	Moraceae; <i>Ficus pomifera</i> Wall. ex King															1(Ficus Garden, Lalkuan)		1	Edible	Indo – Chinese region.
49.	Moraceae; <i>Ficus benjamina</i> L.	 Weeping fig														14(Ficus Garden, Lalkuan)		14	Medicinal and Fuelwood	India (Cultivated throughout), China, Malaysia to the Solomon Islands.
50.	Moraceae; <i>Ficus benjamina</i> L. var. nuda	 Weeping fig														15(Ficus Garden, Lalkuan)		15	Medicinal and Fuelwood	India (Assam, Sikkim, Bihar) China, Myanmar, Nepal and Bhutan.
51.	Moraceae; <i>Ficus heterophylla</i> L. f.			Lalkuan	2										2	1(Ficus Garden, Lalkuan)		3	Medicinal	India, China, Myanmar, Sri Lanka and Indochina.

52.	Moraceae; <i>Ficus amplissima</i> J.E. Sm, <i>Syn. Ficus tsiela</i> Roxb. ex Buch. Ham	 Indian Bat fig														6(Ficus Garden, Lalkuan)		6	Medicina, Edible and Fuelwood	India (Central and South provinces) Sri Lanka.
53.	Moraceae; <i>Ficus cupulata</i> Haines		Rare BULL. BUT. SURV. INDIA VOL,44(140):2002													1(Ficus Garden, Lalkuan)		1	Fuelwood	Endemic to India.
54.	Moraceae; <i>Ficus drupacea</i> Thunb.	 Brown woolly fig														1(Ficus Garden, Lalkuan)		1	Medicinal	India (Southern region) Bangladesh, China, Nepal, Sri Lanka and Thailand.
55.	Moraceae; <i>Ficus iceland</i>															148 (Ficus Garden, Lalkuan)		148	Ornament al	Tropical East Asia (Bonsai)
56.	Moraceae; <i>Ficus triangularis</i>	 Triangle Fig														11(Ficus Garden, Lalkuan)		11	Ornament al	South Africa
57.	Moraceae; <i>Ficus triangularis</i> var. variegata	 Triangle Fig														15(Ficus Garden, Lalkuan)		15	Ornament al	South Africa

58.	Moraceae; <i>Ficus longifolia</i> Schott	 Narrow Leaf Fig														1(Ficus Garden, Lalkuan)		1	Ornament al	India to northern Australia
59.	Moraceae; <i>Ficus cyathistipuloide s</i> De. Wild.															1(Ficus Garden, Lalkuan)		1	Ornament al	Native to Africa
60.	Moraceae; <i>Ficus dalhousiae</i> (Miq.) Miq.			Lalkuan	25										25	1(Ficus Garden, Lalkuan)		26	Ornament al	Endemic to India
61.	Moraceae; <i>Ficus cercinalis</i>															1(Ficus Garden, Lalkuan)		1	Ornament al	
62.	Moraceae; <i>Ficus assamica</i> Miq.			Lalkuan	55										55	10 (Ficus Garden, Lalkuan)		65	Ornament al	India, Bangladesh, Nepal, S. China and Thailand

63.	Moraceae; <i>Ficus fishhook</i>															2(Ficus Garden, Lalkuan)		2	Ornament al	
64.	Moraceae; <i>Ficus jagala</i>			Lalkuan	12											1(Ficus Garden, Lalkuan)		13		
65.	Moraceae; <i>Ficus travancorica</i> King.															1(Ficus Garden, Lalkuan)		1	Ornament al	South India
66.	Moraceae; <i>Ficus hookeriana</i> Corner															1(Ficus Garden, Lalkuan)		1	Fodder	India (Sikkim, Meghalaya, Arunachal Pradesh) Bhutan, China and Nepal.
67.	Moraceae; <i>Ficus kingbush</i>															16(Ficus Garden, Lalkuan)		16	Ornament al	Asia

68.	Moraceae; <i>Ficus callosa</i> Willd			Lalkuan	20												1(Ficus Garden, Lalkuan)		21	Ornament al	India, China, Myanmar, Sri Lanka and Thailand.
69.	Moraceae; <i>Ficus blackii</i>														1		1(Ficus Garden, Lalkuan)		1	Fuelwood	
70.	Moraceae; <i>Ficus beddomei</i> King																1(Ficus Garden, Lalkuan)		1	Edible	Endemic to India.
71.	Moraceae; <i>Ficus mollis</i> Vahl (Hariyana)	 Soft Fig															1(Ficus Garden, Lalkuan)		1	Medicinal	India (Central and Southern provinces) Jharkhand, Rajasthan, Sri Lanka.
72.	Moraceae; <i>Ficus mollis</i> (Indore)	 Soft Fig															1(Ficus Garden, Lalkuan)		1	Medicinal	India (Central and Southern provinces) Jharkhand, Rajasthan, Sri Lanka.

73.	Moraceae; <i>Ficus green land</i>																1(Ficus Garden, Lalkuan)		2		
74.	Moraceae; <i>Ficus nitida</i>																1(Ficus Garden, Lalkuan)		1	Ornamental	
75.	Moraceae; <i>Ficus nitida</i> var. variegated																1(Ficus Garden, Lalkuan)		1	Ornamental	
76.	Moraceae ; <i>Ficus curtipes</i> Corner																1(Ficus Garden, Lalkuan)		1	Ornamental	India (Assam, Manipur, Sikkim, Tripura) Bhutan, China, Nepal and Myanmar.
77.	Moraceae; <i>Ficus obscura</i>																1(Ficus Garden, Lalkuan)		1		Japan, China and southeast Asia.
78.	Moraceae; <i>Ficus safari</i>																1(Ficus Garden, Lalkuan)		1	Ornamental	Tropical Asia and Australia

79.	Moraceae; <i>Ficus jag</i> <i>Damvar</i>																1(Ficus Garden, Lalkuan)		1		
80.	Moraceae; <i>Ficus reginald</i>																1(Ficus Garden, Lalkuan)		1	Ornament al	Asia
81.	Moraceae; <i>Ficus variegata</i> Blume	 Red Stem Fig															1(Ficus Garden, Lalkuan)		1	Ornament al	Asia and Southeast Australia
82.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
83.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
84.	Moraceae;																1(Ficus Garden, Lalkuan)		1		

85.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
86.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
87.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
88.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
89.	Moraceae;																1(Ficus Garden, Lalkuan)		1		

90.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
91.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
92.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
93.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
94.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
95.	Moraceae;																1(Ficus Garden, Lalkuan)		1		

96.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
97.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
98.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
99.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
100.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
101.	Moraceae;																1(Ficus Garden, Lalkuan)		1		

102.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
103.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
104.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
105.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
106.	Moraceae;																1(Ficus Garden, Lalkuan)		1		
107.	Moraceae;																1(Ficus Garden, Lalkuan)		1		

- 26 Species yet to be identified

II. Pine

S. No	Family; Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttar akhand Govt./ Indian Biodiversity Portal)	Nursery								Total	Experiment Site	Preserva tion Plot	Grand Total	Use	Native Region
				Nursery Name													
				1		2		3		4							
Nurse ry. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nurser y Name	No. Of Plant										
1.	Pinaceae; <i>Pinus ayacahuite</i> Ehrenb.ex Schltdl.	 Mexican white pine	Least concern (IUCN)									6 (Pineatum)		6	Ornamental and construction work.	Native to the mountains of Southern Mexico and West Central America.	
2.	Pinaceae; <i>P. caribaea</i> Morelet		Least concern (IUCN)									7 (Pineatum)		7	Construction work and timber	Native to Central America, Cuba, the Bahamas and the Turks and Caicos Islands.	
3.	Pinaceae; <i>P. canariensis</i> C. Sm.		Least concern (IUCN)									3 (Pineatum)		3	Ornamental and construction work.	California., United States of America.	
4.	Pinaceae; <i>P. densiflora</i> Siebold & Zucc.		Least concern (IUCN)									1 (Pineatum)		1	Timber production and ornamental	Japan, the Korean, Peninsula, Northeastern China.	
5.	Pinaceae; <i>P. echinata</i> Mill.		Least concern (IUCN)									238 (Pineatum)		238	Construction work.	Native to the Eastern United States from Southern New Jersey, South to Northern Florida, West to Eastern Texas.	

6.	Pinaceae; <i>Pinus elliotti</i> Engelm.		Least concern (IUCN)										55 (Pineatum)		55	Construction work.	Native to the Southeastern United States from Southern Carolina west to Southeastern Louisiana.
7.	Pinaceae; <i>Pinus greggii</i> Engelm. ex Parl.		Near Threatened (IUCN)	Gaja	1	Saritataal	4						1907 (Pineatum)		1912	Construction work.	Native to Eastern Mexico.
8.	Pinaceae; <i>Pinus</i> spp.												3 (Pineatum)		3		
9.	Pinaceae; <i>Pinus</i> spp.												3 (Pineatum)		3		
10.	Pinaceae; <i>P. kesiya</i> Royle ex Gordon		Least concern (IUCN)										179 (Pineatum)		179	Construction work.	Its range extends south and east from the Khasi Hills in the northeast Indian state of Meghalaya, to Northern Thailand, Philippines, Myanmar, Cambodia, Laos, Southernmost China, and Vietnam.
11.	Pinaceae; <i>P. leiophylla</i> Schi.ex Schltdl.ex Cham.		Least concern (IUCN)										4 (Pineatum)		4	Construction work.	Found in the mountains of Southeastern Arizona and Southwestern New Mexico.

12.	Pinaceae; <i>P. montezume</i> Lamb.		Least concern (IUCN)										10 (Pineatum)		10	Medicinal and Construction work.	Native to Mexico and Central America.
13.	Pinaceae; <i>P. nigra</i> J.F. Arnold		Least concern (IUCN)										4390 (Pineatum)		4390	Construction work and paper manufacture.	Native to Europe and Asia .Its range extends from Spain and Morocco in east to Eastern Turkey and north to Northeastern Austria and the Crimea, Russia.
14.	Pinaceae; <i>P. oocarpa</i> Schiede .ex Schltdl												3 (Pineatum)		3	Construction work, resin and ornamental.	Native to Mexico and Central America. It is the national tree of Honduras.
15.	Pinaceae; <i>P. patula</i> Schi.ex Schltdl.ex Cham.												583 (Pineatum)		583	Construction work and Pulp production.	Australia, New Zealand, Argentina, Brazil, Southeast Asia, Southern and Eastern Africa.
16.	Pinaceae; <i>P. pinaster</i> Aiton.		Least concern (IUCN)										2 (Pineatum)		2	Construction work and flavonoids.	Portugal and Northern Spain to Southern and Western France, east to Western Italy, and South to Northern Morocco.
17.	Pinaceae; <i>P. pinea</i> L.		Least concern (IUCN)										1 (Pineatum)		1	Construction work and fuel.	Native to the Mediterranean region, occurring in Southern, Europe, Israel, Lebanon and Syria.
18.	Pinaceae; <i>P. rigida</i> Mill.		Least concern (IUCN)										19 (Pineatum)		19	Construction work, fuel and pulp	Native to eastern North America, from Central Maine south to Georgia and as far west as Kentucky

19.	Pinaceae; <i>P. taeda</i> L.	 Lobolly pine	Least concern (IUCN)										465 (Pineatum)		465	Construction work.	Native to the Southeastern United States, from Central Texas east to Florida, and north to Delaware and Southern New Jersey.
20.	Pinaceae; <i>P. thunbergii</i> Parl.		Least concern (IUCN)										4 (Pineatum)		4	Construction work.	Native to coastal areas of Japan.
21.	Pinaceae; <i>Pinus roxburghii</i> Sarg.	 Chir	Least concern (IUCN)										1 (NakshtraV aatika) 5 (Public Healthn Garden)		6	Medicinal and Timber	Near Endemic Native to the Himalayas.
22.	Pinaceae; <i>Pinus gerardiana</i> Wall. ex D. Don		Near threatened (IUCN)										4 (Pineatum)		4	Medicinal	Native to the northwestern Himalayas in eastern Afghanistan, Pakistan, and northwest India

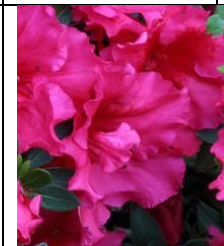
- 2 Species yet to be identified

III. Oak

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery												Experiment Site	Preservation Plot	Grand Total	Use	Native Region	
				Nursery Name																	Total
				1		2		3		4		5		6							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Fagaceae; <i>Quercus glauca</i> Thunb.	 Harinj		Mandal	156											156	275 (Kaligarh block –16) & 34 (Miyawaki Experiment)		465	Farming tools	Himalaya to Japan, USA.
2.	Fagaceae; <i>Quercus leucotrichophora</i> .Camus	 Banj		Mandal	110	Tangsa	440	Saritataa & Gajal	345	Kalika	1603	Dwars on	427	Patalhod	40	2965	420 (Trishula comp. 20 B K.W.L.D) ; 5 (Arboretum at Gaja); 1 (Arboretum, Haldwani); 804 (Miyawaki Experiment)		4215	Fodder and Fuelwood	Indian Himalayan region.
3.	Fagaceae; <i>Quercus semecarpifolia</i> Smith	 Kharsu		Devvan	150	Patalhod	30	Kalika	206							386	145(Trishula comp. 19 B K.W.L.D); 100 (Kaligarh block – 16)		650	Fodder and Fuelwood	Himalayas and nearby mountains in Tibet.
4.	Fagaceae; <i>Quercus floribunda</i> Lindl. ex A . Camus	 Moru		Gaja	50											50	35(Trishula comp. 20 B K.W.L.D); 1(Arboretum at Gaja); 1 (Arboretum, Haldwani)		87	Farming tools	Near Endemic.

5.	Fagaceae; <i>Quercus serrata</i> Thunb.			Kalika	150										150	50 (Kaligarh block – 16); 3(Arboretum at Gaja)		203	Fodder	Himalayas, from Kumaon eastward, Manipur, Khasi hills and upper Myanmar.
6.	Fagaceae; <i>Quercus lamelloa</i> Smith	 Shalshi														5 (Kaligarh block 16)		5	Fodder and construction work	Himalaya to Southern China
7.	Fagaceae; <i>Quercus pachyphylla</i> Kurz	 Bada katus														5 (Kaligarh 16)		5	Fodder and construction work	Sikkim and Manipur.
8.	Fagaceae; <i>Quercus lanuginosa</i> Lam.	 Latwa banj	Least concern (IUCN, FFI and BGCI)	Kalika	18										18	249 (Kaligarh block – 16); 15 plants (Miyawaki Experiment).		282	Fodder and tanning	Native to East Asia China, Northern Thailand and Vietnam

IV. Rhododendron:

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/ Biodiversity Board/ENVIS/ Uttarakhand Govt./ Indian Biodiversity Portal)	Nursery												Experiment Site	Preservation Plot	Grand Total	Use	Native Region	
				Nursery Name																	Total
				1		2		3		4		5		6							
				Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant						
1.	Ericaceae; <i>Rhododendron arboreum</i> Sm.	 Burans	Least concern (IUCN)	Mandal	1000	Tangsa	450	Dwars on	234	Patalthod	2950	Kalika	938	Sariatal	18	5590	2 (Arboretum at Gaja)		5592	Edible	Indian Himalayan Region.
2.	Ericaceae; <i>Rhododendron barbatum</i> Wall.ex G.Don			Patalthod	50											50			50	Leaves are used as fish poison.	Indian Himalayan Region.
3.	Ericaceae; <i>Rhododendron campanulatum</i> D.Don			Patalthod	50											50			50	Medicinal	Himalayan alpine regions of Northern India (Sikkim, HP, UK), Bhutan, and Nepal.
4.	Ericaceae; <i>Rhododendron anthopogon</i> D. Don	 Tagsu		Mandal	10											10			10	Medicinal	Near Endemic India , Nepal and China
5.	Ericaceae; <i>Azalea japonica</i>			Kalika	5	Dwars on	2									7			7	Ornamental	Asia, Europe and North America

6.	Ericaceae; <i>Azalea indica</i>			Kalika	5											5			5	Orname ntal	Asia, Europe and North America.
7.	Ericaceae; <i>Rhododendron niveum</i>			Kalika	4											4			4	Medicin al and Orname ntal	Native to northeastern India

V. Other Tree Species:

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS /Uttarakhand Govt./ Indian Biodiversity Portal)	Nursery												Experiment Site	Preservation Plot	Grand Total	Use	Native Region	
				Nursery Name																	Total
				1		2		3		4		5		6							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Lauraceae; <i>Persea odoratissima</i> Nees.	 Kaula		Mandal	19700	Tangsa	1000									20700			20700	Fuelwood and Fodder	SE Asia – India.
2.	Lauraceae; <i>Cinnamomum tamala</i> Nees.	 Tejpat	Limited collection allowed by Uttarakhand Government	Mandal	265	Tangsa	2900	Kalika	2121	Bhujiyaghat/Gaja/Sariatal	44012	Patalthod	5	Dwarsan	1673	50971	188 (Miyawaki Experiment); 2(Arboretum at Gaja); 1 (Arboretum, Haldwani) 5 (Public Health Garden)		51167	Spice and Medicinal	Near Endemic
3.	Oleaceae; <i>Fraxinus micrantha</i> Linglesh	 Angu	Data Deficient (IUCN)	Mandal	300	Kalika	3314	Sariatal	247	Dwarsan	1000	Patalthod	40	Gaja	250	4251	63 (Miyawaki Experiment); 1(Arboretum at Gaja)		4315	Fuelwood	Central America
4.	Aceraceae; <i>Acer oblongum</i> Wall.ex DC.	 Pharbanj	Endangered (Indian Biodiversity Portal)	Mandal	820	Tangsa	380	Kalika	1380	Dwarsan	450	Shyam pur	30	Gaja	492	4002	40 (Mana Vanpanchayat); 134 (Miyawaki Experiment); 1(Arboretum at Gaja); 120 (RET demonstration plot, Harkot, Munsyari).		4297	Fodder and Timber	Pakistan, Nepal and China
5.	Rhamnaceae; <i>Hovenia dulcis</i> Thunb.	 Aunga	Least concern (IUCN)	Mandal	180	Tangsa	250	Kalika & Dwarsan	1335	Devvan	68	Gaja	1909	Sariatal	35	3777	133 (Miyawaki Experiment); 1(Arboretum Gaja)		3911	Medicinal	Japan, China, North Korea, and Thailand.

6.	Betulaceae; <i>Alnus nepalensis</i> Don.	 Utish	Least concern (IUCN)	Mandal	600	Tangsa	4000	Kalika	612	Dwarson	525	Gaja	2451			8188	124 (Miyawaki Experiment); 5(Arboretum Gaja) ; 1 (State tree Haldwani)		8318	Fuel Wood	Indian Himalayan Region.
7.	Betulaceae; <i>Betula alnoides</i> Buch. Ham.	 Saur		Mandal	800	Dwarson	250	Patalthod	100							1150			1150	Timber	Indian Himalayan Region.
8.	Betulaceae; <i>Betula utilis</i> D. Don	 Bhoj patra	Least concern (IUCN)	Mandal	20			Patalthod	7							27	20 (Mana Vanpanchayat); 1(Arboretum at Gaja); 115(RET demonstration plot, Harkot, Munsyari);93 (Miyawaki Experiment, Kalika)		256	Religious and Medicinal	Indian Himalayan Region.
9.	Juglandaceae; <i>Juglans regia</i> L.	 Akhrot	Least concern (IUCN)	Mandal	3500	Tangsa	3890	Shrikot	20							7410	14 (Miyawaki Experiment, Kalika); 1(Arboretum, Haldwani) 5Saritalat (Medicinal beds)		7420	Edible and Medicinal.	Near Endemic.
10.	Oleaceae; <i>Olea glandulifera</i> Wall.	 Garura		Gaja	441	Tangsa	3100	Shrikot	1800	Sariatatal	155					5496	2(Arboretum Gaja)		5498	Fodder, Bird attractin and Butterfly Host plant	Pakistan and China throughout tropical Asia to Australia.
11.	Lythraceae; <i>Punica granitum</i> L.	 Darim	Least concern (IUCN)	Gaja	184	Tangsa	4800	Shrikot	830	Kalika	407	Dwarson	600	Sariatatal	450	7271	597 (Miyawaki Experiment); 1(Arboretum at Gaja) 8 ((Public Health Garden); 10 (Food Forest, Lalkuan)		7887	Edible and Medicinal.	Iran to northern India.

12.	Cornaceae; <i>Cornus capitata</i> Wall	 Bhamor		Dwar son	1293	Tangsa	2067	Shrikot	1700	Kalika	3532	Saritatal	65	Dwar son	1099	9756	1185 (Kaligarh block 16) & (Dwarson block 16); 1(Arboretum at Gaja); 94 (Miyawaki Experiment) 5 (Public Healthn Garden)		11041	Edible	Indian Himalaya n Region.
13.	Betulaceae; <i>Corylus jacquemontii</i> Dene.	 Kabasi	Data Deficient (IUCN) Rare in Himalayan Region.	Mandal	55	Tangsa	5									60	52(Tangsa nursery); 5 (RET demonstration plot, Harkot, Munsyari); 3 (Miyawaki Experiment)		120	Medicinal and Edible	India, Afgh anistan, Nepal and Pakistan.
14.	Caesalpiniaceae ; <i>Bauhinia purpurea</i> L.	 Purple Orchid Tree	Least concern (IUCN)			Tangsa	80									80	1(Arboretum at Gaja); 5 (Tower of Flower)		86	Edible	South China and Southeast ern Asia.
15.	Myricaceae; <i>Myrica esculenta</i> Buch. Ham. Ex D.Don	 Kaphal		Mandal	350	Tangsa	199	Kalika	250	Dwar son	50					849	935 (Kaligarh block 16) and (Dwarson block 16) & 55 (Miyawaki Experiment); 2 (Arboretum at Gaja) 363(Dwarson block 16); 8(Sal associate experimental site, Lalkuan)		2212	Edible	Northern India, Southern Bhutan and Nepal.
16.	Urticaceae; <i>Boehmeria rugulosa</i> Wedd.	 Ghenti		Tangsa	4	Gaja	72	Saria taal	100							176	1(Arboretum Gaja) 10 (Public Healthn Garden		187	Fodder	India, Nepal, Bhutan
17.	Sapotaceae; <i>Diploknema butyracea</i> (Roxb.)H.J.Lam	 Chiura		Mandal	22000	Tangsa	2480	Dwar son	50	Gaja	182	Bhujiy aghat	200			24912	1(Arboretum at Gaja); 1(Arboretum, Haldwani) 5 (Public Health Garden)		24918	Ghee and Soap	Sub Himalaya n Tract.

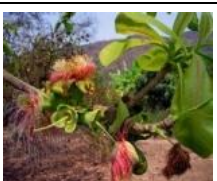
18.	Tiliaceae; <i>Grewia oppositifolia</i> Roxb.ex Mast.	 Bhimal		Tangsa	240	Kalika	505	Dwar son	527	Kalsi	125	Gaja	390			1787	373 (Miyawaki Experiment); 1(Arboretum Gaja); 16(Sal associate experimental site, Lalkuan) 10 (Shrub conservatory, Lalkuan)		2187	Fodder	Near Endemic
19.	Sapindaceae; <i>Sapindus mukorossi</i> Gaertn.	 Ritha		Tangsa	80	Kalsi	52	Dwar son	37	Gaja	28	Bhujiy aghat	1045			1242	1(Arboretum at Gaja); 1 SarvDharmvaatika ; 1 (Arboretum, Haldwani);39 (Miyawaki Experiment) 108 (Lantana plot) 5 (Public Health Garden)		1397	Medici nal	India; Japan.
20.	Rosaceae; <i>Pyrus pashia</i> Buch. Ham ex Don	 Mehal	Least concern (IUCN)	Tangsa	50	Kalika	112	Kalsi	20	Gaja	972	Dwars on	98	Sariata al	240	1492	162 (Miyawaki Experiment); 1(Arboretum at Gaja)		1655	Edible	Indian Himalaya n Region.
21.	Ginkgoaceae; <i>Ginkgo biloba</i> L.	 Ginkgo biloba	Endangered (IUCN)	Mand al	7	Tangsa	1	Kalika	148	Dwar son	347	Devva n	7	Saritat aal	366	1876	59 (Kaligarh); 1(Arboretum at Gaja); 2 (Arboretum, Haldwani) ; 4 (Jurassic Garden, Haldwani) 5 (Public Healthn Garden)		1942	Medici nal	China
22.	Taxaceae; <i>Taxus baccata</i> ssp. <i>wallichiana</i> (Zucc) Pilger	 Thuner	Least concern IUCN Red List Collection closed for the time being by Uttarakhand Government.	Dwars on	89	Dwars on	536	Patal thod	900							1525	290(Mandal nursery): 33(R.E.T Devvan); 1(Arboretum at Gaja);114(RET demonstration); 56 (Miyawki Experiment) 3 (Public Healthn Garden)		2022	Medici nal	Indian Himalaya n Region.
23.	Pinaceae; <i>Abies pindrow</i> (Royle ex D.Don) Royle	 Raga	Least concern (IUCN)	Patalth d	1500											1500	382 (Trishula comp. 19 B K.W.L.D)		1882	Medicin al and Timber	Afghanist an, India (Uttarakh and, HP, J&K), Nepal and Pakistan.

24.	Pinaceae; <i>Tsuga dumosa</i> Carr.	 Tansen	Least concern (IUCN)	Mandal	10	Dwarson	28	Patalthod	100							138	35 (Mana vanpanchayat); 50 (Miyawaki Experiment)		223	Timber	Bhutan, China, India.
25.	Aceraceae; <i>Acer caesium</i> Wall. & Brandis	 Kanchula	Least concern (IUCN); vulnerable (ENVIS); Vulnerable (Indian Biodiversity Portal)	Mandal	400											400	15(Mana vanpanchayat)		415	Fodder	Near Endemic
26.	Platanaceae; <i>Platanus orientalis</i> L	 Chinar	Data Deficient (IUCN)	Mandal	1	Dwarson	57	Patalthod	230	Sariataal	191					479	1(Arboretum Gaja)		480	Ornamental	Southeastern Europe and Asia.
27.	Cupressaceae; <i>Cryptomeria japonica</i> (L.f.) D. Don		Near Threatened (IUCN)	Mandal	20											20			20	Timber	Endemic to Japan.
28.	Pinaceae; <i>Cedrus deodara</i> (Royle ex D Don) G Don	 Deodar	Least concern (IUCN)	Mandal	200	Dwarson	540	Devvan	800	Patalthod	850	kalika	2555	Sariatatal	40	4985	1(Arboretum Gaja)		4986	Timber	Near Endemic
29.	Oleaceae; <i>Osmanthus fragrans</i> Lour.	 Silang	Least concern (IUCN)	Mandal	200	Patalthod	100									300	30 Aromatic plants (Bhujiyaghat) 10 (Aromatic Project Site)		340	Perfumery	China

30.	Salicaceae; <i>Salix (clone)</i>	 Salix														533 (Trishula camp. 1)		533	Medicinal and Timber	Himachal Pradesh	
31.	Lauraceae; <i>Machilus duthiei</i> King.	 Kaula		Kalika	29	Dwarson	540	Sarिताल	16							585	74 plants (Miyawaki Experiment); 1(Arboretum Gaja)		660	Fodder	Near Endemic.
32.	Cornaceae; <i>Cornus macrophylla</i> Wall.	 Khagaas				Sarिताल	348									348	349 (Miyawaki Experiment); 1(Arboretum Gaja); 10 (Public Health Garden)		698	Medicinal	Northern India, Nepal, Bhutan and Pakistan.
33.	Rosaceae; <i>Starnvaesia glucescens</i> Lind.	 Gadhmehal		Kalika	8											8	574 (Miyawaki Experiment)		582	Fodder and Fuel	South China, Indonesia and Philippines.
34.	Pittosporaceae; <i>Pittosporium eriocarpum</i> Royle	 Tumri	Endangered (IUCN) Indeterminate (ENVIS)	Dwarson	200	Gaja	416									616	1(Arboretum Gaja) 5 (Public Healthn Garden)		622	Medicinal	Endemic
35.	Betulaceae; <i>Carpinus viminea</i> Lind.	 Himalayan Hornbean	Least Concern (IUCN)	Dwarson	110	Pतालथोद	74									184	774 (Miyawaki Experiment)	Nainital	958	Fodder	Pakistan, Nepal and Europe

36.	Phyllanthaceae ; <i>Phyllanthus emblica</i> L.	 Amla		Dwarson	7	Kalsi	460	Bhuiyaghat	750							1217	1(Arboretum at Gaja); 1 (Nakshtra Vaatika); 2 (TriphalaVaatika); 10 (Miyawaki, Haldwani); 1 (SarvDharmVaatika); 1 (Buddha vaatika) 5 (Public Health Garden)		1238	Medicinal	India, Sri Lanka, Uzbekistan and South Asia.
37.	Rosaceae; <i>Prunus armeriaca</i> Marsh.	 Chullu		Dwarson	1142	Gaja	1314	Sariatatal	2013							4469	349 (Miyawaki Experiment)		4818	Edible	North America and Florida
38.	Fagaceae; <i>Castanea sativa</i> Mill.	 Sweet chestnut															7 (Miyawaki Experiment)		7	Edible	Southern Europe
39.	Rosaceae; <i>Prunus cerasoides</i> D. Don	 Padam	Least concern (IUCN)	Kalsi	112	Saritatal	120	Mandal	400	Tangsa	200	Dwarson	600	Kalika	200	1632	2 (Miyawaki Experiment); 1 (Arboretum at Gaja); 1(Arboretum Haldwani)		1636	Ornamental, Dye and Walking sticks.	Nepal, Bhutan, China and Myanmar
40.	Combretaceae; <i>Terminalia tomentosa</i> Willd.	 Asna/Saaj		Kalsi	20	Shyampur	2121	Lalkuan	105							2246	1(Arboretum Haldwani); 8(Mixed biodiversity plot, Lalkuan)		2255	Timber	India, Nepal, Myanmar , Thailand and Vietnam.
41.	Combretaceae; <i>Terminalia bellirica</i> (Gaertn.)Roxb.	 Bahera		Kalsi	426	Lalkuan	17	Tangsa	25	Bhuiyaghat	707					1175	1(Arboretum Haldwani); 10 (Public Health Garden)	28	1194	Medicinal	Lower hills in Southeast Asia

42.	Combretaceae; <i>Terminalia chebula</i> Retz.	 Harrar		Kalsi	228	Lalkuan	220	Bhuji aghat	17							465	3 (Triphala Vaatika, Haldwani); 1 (Arboretum, Haldwani); 70 (Color& tanning experimental plot), 24 (Sal associate experimental plot, Lalkuan); 10 (Public Health Garden		573	Medicinal	South Asia India and Nepal, China, Vietnam.
43.	Sapindaceae; <i>Schleichera oleosa</i> (Lour.)Oken	 Kusum	Least concern (IUCN)	Kalsi	177	Shyampur	320									497	100 (RET Plot, Shyampur); 12 (Miyawaki, Haldwani); 3 (Arboretum, Haldwani); 16(Mixed biodiversity plot, Haldwani)		628	Medicinal	India, Myanmar , Nepal, Pakistan, Sri Lanka and Vietnam.
44.	Euphorbiaceae ; <i>Bridelia retusa</i> (L.)A. Juss.	 Spinous kino	Least concern (IUCN)	Kalsi	310	Shyampur	750	Lalkuan	20							1080	735 (River range Kalsi); 100(RET plot); 96 Chakferi block (Seed Orchard); 14(Mixed biodiversity plot, Lalkuan)		2025	Medicinal	India, Myanmar , Nepal, China, Sri Lanka and Vietnam.
45.	Rutaceae; <i>Aegle marmelos</i> (L.) Correa	 Bel		Kalsi	190	Shyampur	20579	Haldwani	373	Lalkuan	150	Gaja	1122	Bhujiy aghat	998	23412	1(Arboretum at Gaja); 1 (Nakshatra Vaatika); 1 (SarvdharmVaatika); 5 (Arboretum, Haldwani)/9 (Miyawaki); 1 (Dashmool demo plot, Haldwani); 1 (PanchVati); 27 (Dashmool species plot, Lalkuan); 10 (Public Health Garden)		23468	Edible and Medicinal	Indian subcontinent and Southeast Asia.

46.	Rubiaceae; <i>Hymenodictyon excelsum</i> Wall.	 Bhaultan/ Borang		Kalsi	90	Bhujiy aghat	260	Shya mpur	350	Lalk uan	4					704	44(River range Kalsi); 1 (Arboretum at Gaja); 100 (Riparian plot); 97 (Chakferi block (Seed Orchard); 5(Miyawaki, Haldwani); 6 Arboretum, Haldwani; 6 (Sal associate l site, Lalkuan); 5 (Public Health Garden)		968	Medicin al	Sub Himalaya n tract.
47.	Boraginaceae; <i>Cordia myxa</i> L.	 Lassora		Kalsi	23	Shyamp ur	2200	Lalk uan	30							2253	100 (Riparian plot); 101 Chakferi block (Seed Orchard); 16(Miyawaki, Haldwani) ; 1 (Arboretum, Haldwani); 16(Mixed biodiversity plot, Lalkuan); 10 (Public Health Garden)		2497	Medicin al	Tropical Africa; Middle East Asia.
48.	Lecythidaceae; <i>Careya arborea</i> Roxb.	 Kumbhi		Kalsi	230	Shyamp ur	670	Hald wani	11	Lalk uan	56					967	38 (River range Kalsi); 1(Arboretum at Gaja); 200(RET plot, Shyampur); 2 Arboretum; 3(Miyawaki), Haldwani; 12 (Mixed biodiversity plot),99(Gum species plot), 70(Color& tanning exp. Plot, Lalkuan)		1392	Medicin al	Sub Himalaya n tract througho u t Bengal, and Myanmar .
49.	Bignoniaceae; <i>Stereospermum suaveolens</i> (Roxb.)DC.	 Padhal		Kalsi	140	Shyamp ur	5750									5890	8 Pipalparao (Mixed Biodiversity Plot);1 (Miyawaki, Haldwani); 1 Dashmool Demo plot, Haldwani ; 1 (Arboretum, Haldwani); 28 (Dashmool species plot, Lalkuan)		5929	Medicin al, Fuelwo o d and Timber	India , Banglade s h and Myanmar
50.	Mimosaceae; <i>Albizzia odoratissima</i> (L.f.) Benth.	 Kala siris	Least Concern (IUCN)	Kalsi	80	Lalkua n	50	Tang sa	100							130	40(River range Kalsi); 13(Mixed biodiversity plot, Lalkuan)		283	Medicin al	India, Myanmar, Nepal, China, Sri Lanka and Vietnam.

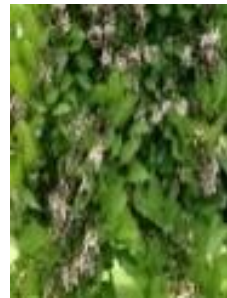
51.	Mimosaceae; <i>Albizzia procera</i> Benth.	 Safed siris		Kalsi	60	Lalkuan	17								77	7(Mixed biodiversity plot); Lalkuan		84	Fuelwood and Timber	Northern India and South East Asia.
52.	Sterculiaceae; <i>Sterculia villosa</i> Roxb.	 Udal		Kalsi	15	Lalkuan	20								35	200 (Riparian plot); 1(Arboretum Haldwani); 5 (Miyawaki, Haldwani); 106, (Gum species experimental plot), 3 (Sal associate plot),16 (Mixed biodiversity plot, Lalkuan)		366	Medicinal	Southern India and South Asia.
53.	Caesalpiniaceae; <i>Delonix regia</i> (Boj.ex Hook) Raf.	 Gulmohar	Least concern (IUCN)	Kalsi	60	Lalkuan	65								125	4 (Palmetum); 10 (Tower of Flower)		139	Ornamental	Native to Madagascar
54.	Dilleniaceae; <i>Dillenia indica</i> L.	 Chalta		Kalsi	99										99	10 (Public Healthn Garden)		109	Edible	China and Tropical Asia.
55.	Myrtaceae; <i>Syzygium cumini</i> (L.)Skeels.	 Jamun		Kalsi	1300	Kalika	150	Jamun	350	Kalsi	300	Shyampur	1600		1450	1(NakshtraVaatika) ; 1 (Arboretum, Haldwani) 5 (Public Health Garden); 10 (Food Forest Lalkuan)		3057	Edible and Medicinal	Asia and tropical Australia.
56.	Clusiaceae; <i>Mesua ferrea</i> L.	 Naagkesar		Lalkuan	5										5	723 (River range Kalsi); 2 (Arboretum, Haldwani); 8 (Mix biodiversity plot, Lalkuan); 1 (Buddha vaatika); 400		1149	Timber and Medicinal	Sri Lanka, India, Nepal, Indochina and Malaysia.

																	(lantana plot Kalsi); 10 (Public Health Garden);				
57.	Meliaceae; <i>Azadirachta indica</i> A. Juss.	 Neem	Least concern (IUCN)	Kalsi	80											80	150(Riparian plot); 3 (Arboretum); 11(Miyawaki); 3 (Sarvdharm vaatika);50 lantana plot, kalsi 5 (Public Health Garden)		202	Medicinal	Bhutan, India, Bangladesh and Myanmar .
58.	Cupressaceae; <i>Platycladus orientalis</i> (L.) Franco.	 Morpankhi	Near Threatened (IUCN)	Kalsi	32	Saritataal	30	Patal thod	1190	Lalkuan	7					1259	10 (Public Health Garden)		1269	Ornamental	China, Tajikistan and Uzbekistan
59.	Caesalpiniaceae; <i>Bauhinia retusa</i> Roxb.	 Semal		Kalsi	1900	Gaja	1365	Bhujiyaghat	30	Sariyatal	250	Kalika	1495	Dwarsan	200	5240	1 (Arboretum, Haldwani) 1(Sal associate experimental site; Lalkuan;900(lantana plot kalsi)		6142	Medicinal	Near Endemic
60.	Caesalpiniaceae; <i>Bauhinia variegata</i> L.	 Kachnar		Lalkuan	114	Shyam pur	20	Kalsi	4000	Gaja	203	Bhujiyaghat	750	Kalika	495	5582	1(Arboretum Gaja); 417 Chakferi Block (Seed Orchard) ; 2(Arboretum) 23 (Miyawaki) ;8 (Haldwani); 6 (Sal Associates, experimental site, Lalkuan), 69 (Color & tannin Plot, Lalkuan), 138 (S.S.P.A 2010&2011, Lalkuan); 55 lantana plot, kalsi, 20 riparian plot, Kalsi; 10 (Public Health Garden)		6331	Edible	China , Southeast Asia to the Indian Subcontinent
61.	Ulmaceae; <i>Ulmus wallichiana</i> Planch.	 Emroyi	Vulnerable (IUCN)	Devvan	100	Kalika	75									175	39 (R.E.T Devvan); 21 (Miyawaki Experiment); 21 (Miyawaki Experiment)		256	Fuelwood and Fodder	Near Endemic

62.	Rosaceae; <i>Prunus cornuta</i> Wall.	 Jamoi		Devv an	63										63			63	Edible	Endemic
63.	Aceraceae; <i>Acer pictum</i> Thunb.	 Yellow paint Maple	Least concern (IUCN)													23 (R.E.T Devvan)		23	Fodder	China, Tibet, Japan and Vietnam.
64.	Oleaceae; <i>Olea cuspidata</i> Wall.	 Kau / Brown Olive														522 (R.E.T Devvan)		522	Medicin al	South Africa, Pakistan, India and China.
65.	Bignoniaceae; <i>Oroxylum</i> <i>indicum</i> Vent.	 Syonaka		Shya mpur	100	Lalkua n	10	Kalsi	420						530	10 (River range Kalsi) 100 (Riparian plot); 1 (Dashmool demo plot, Haldwani) ; 1 (Arboretum, Haldwani); 250(Dashmool species,Lalkuan); 10 (Public Health Garden)		902	Medicin al	Indian subcontin ent
66.	Fabaceae; <i>Acrocarpus</i> <i>fraxinifolius</i> Wight.	 Acrocarpus		Gaja	23										23	6(Arboretum Gaja)		29	Furnitur e	Sikkim, Assam, Western Dwars (Jalpaiguri), and Upper Mynamar.
67.	Mimosaceae; <i>Indopiptadenia</i> <i>oudhensis</i> Brand.	 Genti	Threatened (State Biodiversity Board)	Gaja	327	Shyam pur	60	Kalsi	20						407	2(Arboretum Gaja); 50 (RET plot, Shyampur); 2 (Arboretum, Haldwani) ; 4 (Jurassic Garden, Haldwani); 100 (RET plot, Shyampur).		565	Fodder and Timber	Endemic to the Western Himalaya .

68.	Cupressaceae; <i>Taxodium mucronatum</i> Ten.	 Taxodium	Least concern (IUCN)	Gaja	144											144	1(Arboretum Gaja)		145	Construction work and Ornamental	Native to Mexico
69.	Salicaceae; <i>Salix tetrasperma</i> Roxb.	 Bhains		Gaja	523											523	1(Arboretum Gaja)		524	Edible and Furniture making	NE India, Manipur.
70.	Salicaceae; <i>Salix alba</i> L.	 Laila	Least concern (IUCN)	Gaja	233											233	1(Arboretum Gaja)		234	Furniture making and Medicinal	Native to Europe and western and central Asia
71.	Lauraceae; <i>Litsea umbrosa</i> Nees.	 Kaul		Saritalaal	345											345	1(Arboretum Gaja)		346	Medicinal	East Asia and Indian Himalayan Region.
72.	Ulmaceae; <i>Celtis australis</i> L.	 Kharik		Tangsa	120	Kalika	672	Dwarson	550							1342	1(Arboretum Gaja)		1343	Fodder	Europe and Asia.
73.	Rhamnaceae; <i>Rhamnus triqueter</i> (Wall.) Brandis	 Gonta		Saritalaal	15											15	1(Arboretum Gaja); 148 lantana plot kalsi		164	Fodder	Near Endemic
74.	Anacardiaceae; <i>Rhus semialata</i> Murray.	 Dhamila	Least concern (IUCN)	Saritalaal	8											8	1(Arboretum Gaja)		9	Medicinal	China, Japan and North Eastern parts of India.

75.	Verbinaceae; <i>Gmelina arborea</i> Roxb.	 Gamhar														1(Arboretum Gaja);5 (Miyawaki, Haldwani ; 1 Dashmool, Haldwani); 28 (Dashmool species experimental plot, Lalkuan)		35	Furniture making	Sub Himalaya n tract
76.	Mimosaceae; <i>Albizia lucidor</i> (Steud.)I.C.Niel sen	 Potka siris														1(Arboretum Gaja)		1	Timber	Sub Himalaya n tract
77.	Malvaceae; <i>Chorisia speciosa</i> Ravenna															3(Arboretum Gaja)		3	Edible	Native to Argentina and Brazil
78.	Sterculiaceae; <i>Guazuma ulmifolia</i> Lam.	 Rudrakshi														1(Arboretum Gaja)		1	Construction	Native of tropical America
79.	Lythraceae; <i>Lagerstroemia lanceolata</i> Wall.	 Nandi tree														1(Arboretum Gaja)		1	Rafters	Native to Western Ghats
80.	Sterculiaceae; <i>Pterospermum acerifolium</i> Wall.	 Kanak champa		Lalkuan	23										23	4(Arboretum Gaja); 213(Golatappar 7B); 1(Arboretum Haldwani)		241	Medicinal	Foothills of Indian Himalaya n Region

81.	Fabaceae; <i>Gleditsia sinensis</i> Lam.															2(Arboretum Gaja)		2	Medicinal	Native to Asia
82.	Paulowniaceae; <i>Paulownia fortunei</i> Hemsl.															1(Arboretum Gaja)		1	Timber	Native to China and SE Asia
83.	Sterculiaceae; <i>Stereospermum chelonoides</i> DC.	 Padal														1(Arboretum Gaja)		1	Construction work	Native to Western Ghats and tropical Himalaya
84.	Fabaceae; <i>Pongamia pinnata</i> (L.) Panigrahi	 Karanj	Least concern (IUCN)	Lalkuan	97	Shyam pur	90								187	2(Arboretum Gaja); 69 (Color& tanning experimental plot, Lalkuan); 20 (riparian plot)		278	Medicinal	Native to Indian subcontinent
85.	Lauraceae; <i>Cinnamomum camphora</i> F. Nees	 Kapoor														1(Arboretum Gaja); 1 (Aromatic plants(Bhujiyaghat); 1 (Arboretum, Haldwani); 5(Aromatic species project site, Lalkuan)		8	Medicinal	Native to China, Japan, Korea, Taiwan

86.	Sterculiaceae; <i>Sterculia colorata</i> Roxb.	 Kaushi														2(Arboretum Gaja)		2	Rope making	Native to Western Ghats and Deccan.
87.	Fabaceae; <i>Schizolobium parahyba</i> S.F.Blake															3(Arboretum Gaja)		3	Toy making	Native to Brazil
88.	Bignoniaceae; <i>Haplophragma adenophyllum</i>	 Marodfali														1(Arboretum Gaja) 5 (Public Health Garden)		6	Furniture making	Assam, Myanmar and Bangladesh.
89.	Lauraceae; <i>Cinnamomum glaucescens</i> Hand. Mazz.	 Sugandhkokila														2(Arboretum Gaja)		2	Perfumery	Bhutan, Sikkim. Manipur and Khasi Hills.
90.	Moraceae; <i>Morus alba</i> L.	 Shahtoot		Lalkuan	14	Tangsa	200								14	2(Arboretum Gaja); 1(Arboretum, Haldwani) 200 Tangsa		217	Edible and Sericulture	Northern China and India.

91.	Proteaceae; <i>Grevillea robusta</i> A. Cunn.ex R.Br.			Gaja	1293	Bhujiy aghat	1000									2293	2(Arboretum Gaja)		2295	Furnitur e making	Native to northern New South Wales and southern Queensla nd, Australia
92.	Oleaceae; <i>Olea eruopaea</i> L.	 Jaitun															1(Arboretum Gaja); 5 (Other trees, Lalkuan)		6	Edible oil	Native to the Mediterr a nean region.
93.	Salicaceae; <i>Salix babylonica</i> L.	 Majnu		Patalthe d	50											50	1(Arboretum Gaja); 16 (Sal associate experimental site, Lalkuan)		67	Timber	Native to dry areas of northern China
94.	Oleaceae; <i>Nyctanthes arbortristis</i> L.	 Harsingar/ Parijat		Hald wani	30	Lalkua n	4	Shya mpur	5							39	1(Arboretum Gaja); 100 (Riparian plot, Shyampur); 1(Sarvdharm vaatika, Haldwani); 4 (Aromatic Block); 1 (Arboretum, Haldwani) 2 Bhujiyaghat (Aromaticplants		148	Medicin al	South Asia and Southeast Asia.
95.	Tiliaceae; <i>Grewia globra</i> Bl.	 Kathbhimal		Lalku an	26											26	1(Arboretum Gaja); 7 (Miyawaki, Haldwani);2 (Arboretum, Haldwani); 250 (Sal associate experimental site, Lalkuan); 5 (Shrub species conservatory, Lalkuan)		291	Fibre	Native to Northwes t ern Himalaya s

96.	Salicaceae; <i>Salix elaeagnos</i> Scop.																1(Arboretum Gaja)		1	Timber	India, Nepal, China.
97.	Esalpinaceae; <i>Cassia spectabilis</i> (DC) Irwin&Barneby		Least concern (IUCN)														1(Arboretum Gaja)		1	Orname ntal	Native to South and Central America
98.	Anacardiaceae; <i>Pleiogynium ceresiferum</i> (DC.)Leenh.																3(Arboretum Gaja)		3	Edible	Native to Malaysia, Australia and the Pacific Islands
99.	Fabaceae; <i>Tipauna tipu</i> (Benth.) Kuntze																1(Arboretum Gaja)		1	Timber	South American tree
100	Mimoseae; <i>Leuceana diversifolia</i> L.		Least concern (IUCN)														1(Arboretum Gaja)		1	Edible	Native to the Americas

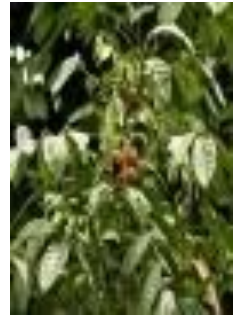
101	Bignoniaceae; <i>Jacranda mimosifolia</i> D.Don	 Jacranda	Vulnerable (IUCN)													1(Arboretum Gaja) 3 (Palmetum)		4	Orname ntal	Native to south central South America
102	Apocynaceae; <i>Acokanthera oppositifolia</i> (Lam.) Codd		Least concern (IUCN)													1(Arboretum Gaja)		1	Medicin al and Orname ntal	Southern and Central Africa
103	Mimoseae; <i>Acacia stenocarpa</i> A.Rich															1(Arboretum Gaja)		1	Medicin al	Egypt to Kenya and west Senegal
104	Cannabaceae; <i>Trema orientalis</i> Bl.	 Banihari	Least concern (IUCN)													1(Arboretum Gaja); 41 (Banihari conservation plot); 1 (Arboretum, Haldwani)		43	Medicin al	Native to Indian subcont inent
105	Fabaceae; <i>Butea monosperma</i> (Lam.)Taub	 Dhak	Data Deficient (IUCN)			Haldwani	11	Lalkuan	32						43	1(Arboretum Gaja); 100 (Riparian plot); 99 Chakferi block (Seed Orchard); 1 (Nav GrahaVaatika);1 (Nakshtra Vaatika) ; 1 (Arboretum, Haldwani); 88(Gum species experimental plot), 16 (Mixed biodiversity plot, Lalkuan); 30 (Riparian plot),		390	Timber	Native to subtrop ical, tropical and Southeast India

																	Shyampur); 10 (Public Health Garden)				
106	Fabaceae; <i>Tamarindus indica</i> L.	 Imli	Least concern (IUCN)	Haldwani	100											100	2(Arboretum Gaja); 100 Chakferi block (Seed Orchard); 2(Miyawaki, Haldwani); 1 (SarvDharmVaatika, Haldwani); 1(Arboretum, Haldwani) 5 (Public Health Garden)		211	Edible	Tropical Africa, and Madagascar.
107	Rubiaceae; <i>Neolamarckia cadamba</i> (Roxb.) Bosser	 Kadamba		Lalkuan	53											53	1(Arboretum Gaja);1 (Nakshtra Vaatika; 1 (SarvDharmVaatika) ; 1 (Arboretum, Haldwani)		57	Furniture making	South and Southeast Asia.
108	Fabaceae; <i>Saraca asoca</i>	 Seeta Ashok	Vulnerable (IUCN)	Lalkuan	11											11	1(Arboretum Gaja); 1 SarvDharmVatika, Haldwani ;1 (Panchvati, Haldwani) ;1 (Panchvati) ;3 (Arboretum, Haldwani); 7 (Ashok Vatika, Haldwani); 6 (Palmetum); 160 lantana plot kalsi); 5 (Public Health Garden)		196	Ornamental	Native to Central India and Western Ghats
109	Elaegnaceae; <i>Elaeagnus latifolia</i> L.	 Loharu		Lalkuan	95											95	2(Arboretum Gaja); 14(Sal associate site, Lalkuan); 50(Medicinal Plant Conservatory Haldwani); 10 (Public Health Garden)		171	Edible and Medicinal	E. Asia, Pakistan and India.
110	Caesalpiniaceae; <i>Cassia fistula</i> L.	 Amaltas	Least concern (IUCN)	Lalkuan	64	Shyampur	130	Kalika	50	Dwarson	50	Thano	100			294	1(Arboretum Gaja); 27 (Miyawaki, Haldwani); 67 (Color& tanning experimental plot,Lalkuan); 1 (Buddha park); 6 (Palmetum); 50 (Riparian plot); 5 (tower of Flowers); 5 (Public Health Garden); 6 (Dharmic van)		435	Medicinal and Ornamental.	Native to Indian subcontinent.

111	oaceae; <i>Moringa oelifera</i> Lam.	 Sahjan		Lalkuan	101	Kalsi	400	Man dal	100	Bhuji yaghat	56					657	1(Arboretum Gaja); 1 (Arboretum, Haldwani); 15(Mixed biodiversity plot, Lalkuan); 5 (Public Healthn Garden)		679	Edible	Native to Indian subcontinent
112	Phyllanthaceae; <i>Bishchofia javanica</i> Blume.	 Paniyala		Shyampur	25	Haldwani	134	Lalkuan	40							199	1(Arboretum Gaja); 150 (RET plot); 19 (Miyawaki, Haldwani); 69 (Color& tanning plot), 8(mixed biodiversity plot, Lalkuan)		446	Furniture making and Medicinal.	South Asia
113	Magnoliaceae; <i>Magnolia champaca</i> (L.) Baill.ex Pierre	 Champa	Least concern (IUCN)														1(Arboretum Gaja); 5 (Arboretum Haldwani)		6	Furniture making and Ornamental	India, Java and Philippines.
114	Burseraceae; <i>Garuga pinnata</i> Roxb.	 Kharpat															1(Arboretum Gaja); 100(RET plot); 5 (Pipalparao Biodiversity Plot) ;14 (Miyawaki, Haldwani); 10 (Shrub conservatory, Lalkuan)		130	Medicinal	China and Indian subcontinent.
115	Ebenaceae; <i>Diospyros chloroxylon</i> Roxb.	 Kala tendu	Not evaluated (IUCN)	Shyampur	25	Lalkuan	2									27	1(Arboretum Gaja); 100 (RET Plot, Shyampur); 10 (Public Healthn Garden)		138	Medicinal	Native to South India
116	Euphorbiaceae; <i>Putranjiva roxburghii</i> Wall.	 Putranjiva		Lalkuan	14											14	1(Arboretum Gaja); 100 (Riparian plot); 2(Arboretum Haldwani); 10 (Public Healthn Garden)		127	Medicinal	Southeast Asia, Indian Subcontinent.

117	Rubiaceae; <i>Haldina cordifolia</i> (Roxb.) Hook.f. ex Brandis	 Haldu		Shyam pur	150	Lalkuan	202								352	1(Arboretum Gaja); 7 (Miyawaki, Haldwani); 25 (HalduVaatika); 1 (Arboretum, Haldwani); 137 (Sal associate experimental plot, Lalkuan)		523	Medicinal	Sub Himalayan tracts; Western Ghats, Sri Lanka and Myanmar.
118	Fabaceae; <i>Dalbergia sissoo</i> Roxb.	 Shisham		Lalkuan	40	Kalsi	1200								1240	2(Arboretum Gaja); 15 (Miyawaki, Haldwani); 3 (Arboretum, Haldwani); 1 (Buddha park)		1261	Timber	Sub Himalayan tracts
119	Mimosaceae; <i>Acacia catechu</i> Wall.	 Khair		Shyam pur	40	Kalsi	340								380	1 (Nav GrahaVaatika); 1 (Nakshtra Vaatika);18 (Miyawaki);11 (Arboretum, Haldwani); 5 (Public Health Garden)		416	Edible	Garhwal and Kumaon; Irawaddi valley of Pegu (Myanmar).
120	Mimosaceae; <i>Acacia nilotica</i> (L.) P.J.H.Hurter & Mabb.	 Babul	Least concern (IUCN)	Lalkuan	13										13	1(Arboretum Gaja); 57 (Gum species experimental plot, Lalkuan)		71	Edible, Gum and Reclamation	Africa, Middle East Asia and Indian subcontinent.
121	Meliaceae; <i>Melia azaderach</i> L.	 Bakain	Least concern (IUCN)	Kalsi	236	Kalika	40	Dwarson	455						731	1(Arboretum Gaja); 3(Arboretum Haldwani); 5 (Public Health Garden)		737	Timber	Southeast Asia and Northern Australia.
122	Elaeocarpaceae ; <i>Eleocarpus augusstifolius</i> Bl.	 Rudraksha														1(Arboretum Gaja); 2 (Arboretum, Haldwani); 75 (Rudraksh Hedge Garden, Haldwani)		78	Pharmaceutical	India, Nepal and Bangladesh.

123	Verbenaceae; <i>Tectona grandis</i> L.	 Teak														2(Arboretum Gaja); 2(Arboretum Haldwani)		4	Timber	Central India and Myanmar .
124	Simaroubaceae ; <i>Simarouba glauca</i> DC.	 Laxmitaru														1(Arboretum Gaja); 1 (Arboretum, Haldwani) 5 (Public Healthn Garden		7	Medicin al	Native to Florida, South America.
125	Araucariaceae; <i>Agathis robusta</i> Bailey	 Agathis	Least concern (IUCN)	Lalkuan	25										25	1(Arboretum Gaja); 1(Arboretum Haldwani); 3 (Lalkuan Centre)		30	Furniture making	Papua New Guinea and Queensland, Australia.
126	Fabaceae; <i>Gleditsia triacanthos</i> L.	 Kauri pine														1(Arboretum Gaja)		1	Varnishes and paints	Native to central North America.
127	Mimosaceae; <i>Albizia zygea</i> (D.C) J.F.Macbr.															1(Arboretum Gaja)		1	Medicin al	Asia, Africa, Madagascar, America and Australia.
128	Podocarpaceae; <i>Podocarpus gracilior</i> (Pilg.) C.N.Page		Least concern (IUCN)													2(Arboretum Gaja)		2	Timber	Asia, Africa, Madagascar, America and Australia.

129	Santalaceae; <i>Santalum album</i> L.	 Chandan	Vulnerable (IUCN)	Lalkuan	29										29	2(Arboretum Gaja); 4 (Arboretum, Haldwani); 365(Chandan experimental plot, Lalkuan)		400	Aromatic oil	Endemic to Timor Islands.
130	Myrtaceae; <i>Callistemon viminalis</i> Byrnes	 Cheel/ Bottlebrush														2(Arboretum Gaja); 4 (Palmetum); 4 (Arboretum Haldwani)		10	Orname ntal	East coast of Australia from Cape York to north east New South Wales.
131	Meliaceae; <i>Dysoxylum binectariferum</i> Hook.fil.	 Achalkoot														3(Arboretum Gaja); 2 (Arboretum, Haldwani)		5	Medicina l	Sikkim, Khasi hills, Western Ghats.
132	Combretaceae; <i>Anogeissus acuminata</i> Wall	 Dhau														2(Arboretum Gaja)		2	Timber	Chittagon g hill tract. Upper and lower Myanmar .
133	Meliaceae; <i>Chukrasia velutina</i> M.Roem	 Chikrasi	Least concern (IUCN)													5(Arboretum Gaja); 6 (Palmetum); 1(Arboretum Haldwani)		12	Medicina l	India, China, Malaysia, Myanmar , Sri Lanka.

134	Araucariaceae; <i>Araucaria bidwilli</i> Hook		Least concern (IUCN)														4(Arboretum Gaja)		4	Edible	South east Queensla nd Australia.
135	Araucariaceae: <i>Araucaia cunninghami</i>																2(Arboretum Gaja)		2	Furniture making	Dry rainforest s of New South Wales and Queensla nd and in New Guinea
136	Mimosaceae; <i>Acacia lenticularis</i> Buch. Ham. ex Benth																1 (Arboretum Gaja)		1	Medicin al	E. Asia. India, Pakistan, Nepal.
137	Pinaceae; <i>Cedrus atlantica</i> (Endl.) Manetti ex Carriere		Endangered (IUCN)														1(Arboretum Gaja)		1	Timber	Native to the Atlas Mountain s of Morocco
138	Mimosaceae; <i>Acacia confusa</i> Merr		Least concern (IUCN)														1(Arboretum Gaja)		1	Medicin al	Native to South East Asia
139	Sapindaceae; <i>Koelreuteria paniculata</i> Laxm.																3(Arboretum Gaja)		3	Orname ntal	Native to Eastern Asia, in China and Korea

140	Fabaceae; <i>Derris robusta</i> (Roxb.ex DC.) Benth	 Kathiyakoroi														1(Arboretum Gaja)		1		Native to East Himalayas	
141	Fabaceae; <i>Ougeinia oojeinensis</i> (Roxb.) Hochreut	 Sadan		Lalkuan	48	Kalsi	350	Tangsa	50							448	1(Arboretum Gaja); 1 (Arboretum Haldwani); 64 (Sal associate plot, Lalkuan)		517	Fodder and Farming tool	Native to western Himalayas
142	Cupressaceae; <i>Cupressus torulosa</i> D. Don ex Lamb	 Surai	Least concern (IUCN)	Patalthod	200	Tangsa	250	Sariatool	440							890			890	Medicinal.	Near Endemic
143	Cupressaceae; <i>Juniperus recurva</i> Buch. Ham. ex D. Don	 Dhoop	Least concern (IUCN)	Patalthod	145											145	105(RET demonstration plot, Harkot, Munsyari)		295	Timber and Ornamental	Indian Himalayan Region.
144	Malvaceae; <i>Kydia calycina</i> Roxb.	 Pula	Least Concern (IUCN)	Shyamur	400	Lalkuan	9									409	200 (Riparian plot); 104 Chakferi block (Seed Orchard); 1(Miyawaki, Haldwani); 5(Sal associate site, Lalkuan)		719	Medicinal and Timber	E. Asia southern China, Indian subcontinent, Myanmar .

145	Myrtaceae; <i>Eucalyptus</i> <i>clonol</i> (K 25)	 Eucalyptus		Shyampur	12959										12959			12959	Timber	Native to Australia.
146	Anacardiaceae; <i>Spondias</i> <i>mangifera</i> Willd.	 Aamra		Shyampur	80	Lalkuan	32								112	200 (Riparian plot) ; 2 (Arboretum, Haldwani); 99(Gum & dye plot), 15 (Mixed biodiversity plot, Lalkuan); 80 lantana plot, kalsi); 5 (Public Health Garden)		513	Medicinal	Sub Himalayan tract and outer valleys upto Chenab region.
147	Bixaceae <i>Flacourtia</i> <i>cataphracta</i> Roxb. ex Willdenow	 Pachnala		Shyampur	29										29	100 (RET Plot, Shyampur); 107 Chakferi block (Seed Orchard)		236	Agricultural implements , Fruit and Edible	Tropical regions of Asia
148	Cornaceae; <i>Alangium</i> <i>lamarckii</i> Thwaites	 Ankola	Rare (ENVIS)	Shyampur	1100	Lalkuan	63								1163	1(Arboretum Haldwani); 16(Mixed biodiversity plot, Lalkuan); 10 (Shrub conservatory, Lalkuan)		1190	Timber	W.Africa , E.Asia and Tropical Australia.
149	Combretaceae; <i>Anogeissus</i> <i>latifolia</i> Wall.ex Guill & Perr.	 Bakali		Shyampur	595	Lalkuan	4								599	200 (Riparian plot); 100 (Gum species plot), 13(mixed biodiversity plot, Lalkuan)		912	Medicinal	India, Nepal, Myanmar and Sri Lanka.
150	Fabaceae; <i>Pterocarpus</i> <i>marsupium</i> Roxb.	 Bijasal	Vulnerable (IUCN)	Shyampur	110	Lalkuan	5								115	100 (RET plot, Shyampur); 8 Pipalparao (Mixed Biodiversity Plot); 14 (Miyawaki, Haldwani); 3 (Arboretum, Haldwani); 14 (Mixed biodiversity plot, Lalkuan)		254	Medicinal	Central and south India , South east Corner of Kumaon.

151	Sapotaceae; <i>Madhuca longifolia</i> (Koenig) MacBride.	 Mahua		Shyampur	141	Lalkuan	75								216	100 (RET plot, Shyampur); 1 (Arboretum, Haldwani); 1 (NakshtraVaatika, Haldwani); 8 Pipalparao (Mixed Biodiversity Plot) 70(Color& tanning experimental plot, Lalkuan); 5 (Public Health Garden)		396	Medicinal	Himalayan foothills from the river Ravi to Kumaon, and southwards to Central India.
152	Rhizophoraceae; <i>Carallia integerrima</i> DC.	 Varangu														414 (RET plot, Shyampur); 15 Pipalparao (Mixed Biodiversity Plot); 1 (Arboretum, Haldwani)		430	Medicinal and Fodder	Australia, Malaysia, Indochina; Western Ghats.
153	Burseraceae; <i>Boswellia serrata</i> Roxb.	 Salaai guggal		Lalkuan	102										102	100 (RET plot, Shyampur); 106 (Gum species plot), 8 (Mixed biodiversity plot, Lalkuan); 5 (Public Health Garden)		321	Medicinal and Gum	Sub Himalayan tract.
154	Annonaceae; <i>Miliusa velutina</i> H.f. & Thoun.	 Domsal	Not Evaluated (Indian Biodiversity Board)													150 (RET plot, Shyampur); 12 Pipalparao (Mixed Biodiversity Plot); 8 (Miyawaki, Haldwani); 7 (Sal associate site, Lalkuan)		167	Medicinal	Sub Himalayan tract, Central India.
155	Lauraceae; <i>Litsea chinensis</i> Lam.	 Maida lakdi														20 (RET plot, Shyampur); 1(Arboretum, Haldwani)		21	Medicinal	Sub Himalayan tract, Bengal, and South India

156	Ebenaceae; <i>Diospyros cordofolia</i> Roxb.	 Vish tendu		Lalkuan	20										20	100 (RET plot, Shyampur); 16(Miyawaki); 1(Arboretum, Haldwani);31 (Sal associate site, Lalkuan); 10 (Public Health Garden)		178	Medicinal	Sub Himalayan tract, from the Ravi Eastwards
157	Anacardiaceae; <i>Semecarpus anacardium</i> L.f.	 Bhilawa	Not evaluated (Indian Biodiversity board)	Lalkuan	129										129	20 (RET plot, Shyampur); 9 (Miyawaki, Haldwani); 4 (Pipalparao Mixed Biodiversity Plot); 82 (Color&tanningplot Lalkuan), 12 (Sal associate site, Lalkuan)		256	Medicinal	Sub Himalayan tracts, Assam, Khasi hills.
158	Loganiaceae; <i>Strychnos nux-vomica</i> L.	 Kulicha		Lalkuan	9										9	20 (RET plot, Shyampur); 1 (NakshtraVaatika, Haldwani); 1(Arboretum, Haldwani); 8(Mixed biodiversity plot, Lalkuan); 15 (Public Health Garden)		44	Medicinal	Western peninsula , lower and upper Myanmar
159	Rubiaceae; <i>Mitrangyna parvifolia</i> (Roxb.)Korth	 Faldu		Lalkuan	85										85	150(RET plot, Shyampur); 1(Arboretum Haldwani); 16(Sal associate experimental site, Lalkuan)		252	Medicinal	India and Sri lanka
160	Caesalpiniaceae; <i>Bauhinia malabarica</i> Roxb.	 Mallbar bauhinia														200 (Riparian plot); 16(Sal associate experimental site, Lalkuan)		216	Medicinal	Sub Himalayan tracts and southern parts of India.

161	Oxalidaceae; <i>Averrhoa</i> <i>carambola</i> L.															1 (Arboretum, Haldwani)		1	Edible and Medicinal	Native to Southeast Asia
		Karmal																		
162	Anacardiaceae; <i>Buchanania</i> <i>lanzan</i> Spreng.			Lalkuan	1										1	2 (Arboretum, Haldwani); 12(Mixed biodiversity plot, Lalkuan); 5 (Public Healthn Garden)		20	Edible	Northwest India
		Chironji																		
163	Capparaceae; <i>Crateva</i> <i>nurvala</i> Buch. Ham.															1 (Arboretum, Haldwani); 5 (Public Healthn Garden)		6	Medicinal	Sub Himalayan tracts; Tamil Nadu, Kerala.
		Barna																		
164	Rutaceae; <i>Citrus medica</i> L.															1 (Arboretum, Haldwani) 10 (Food Forest Plot)		11	Edible	China
		Nimboo																		
165	Ebenaceae; <i>Diospyros</i> <i>malabarica</i> (Desr.)Kostel															1 (Arboretum, Haldwani)		1	Medicinal	Indian Subcontinent and SW.Asia
		Gaub																		
166	Ebenaceae; <i>Diospyros</i> <i>melanoxylon</i> Roxb.															15(Miyawaki, Haldwani); 1(Arboretum, Haldwani); 10 (Public Healthn Garden)		26	Medicinal	Central India and Western Peninsula
		Tendu																		

167	Tiliaceae; <i>Elaeocarpus serratus</i> L.	 Bhadraksh		Lalkuan	3										3	1(Arboretum, Haldwani)		4	Medicinal	Western ghats
168	Rubiaceae; <i>Gardenia turgida</i> Roxb.	 Thanela		Shyamur	470	Lalkuan	4								474	23 (Pipalparao (Mixed Biodiversity Plot); 3 (Arboretum, Haldwani); 16(Mixed biodiversity plot, Lalkuan)		516	Medicinal	Sub Himalayan tracts
169	Bignoniaceae; <i>Kigelia africana</i> (Lam.) Benth	 Balamkheera		Lalkuan	6										6	2(Arboretum, Haldwani); 10 (Public Healthn Garden)		18	Medicinal	Tropical Africa ; Eritrea and India
170	Lythraceae; <i>Lagerstroemia speciosa</i> L.	 Jarul														1 (Arboretum, Haldwani); 6 (Palmetum)		7	Timber and Medicinal.	South Asia
171	Lauraceae; <i>Litsea glutinosa</i> (Lour.)C.B.Rob.	 Maida		Lalkuan	34										34	96 (Chakferi block Seed Orchard, Haldwani); 8 (Miyawaki, Haldwani); 70(Color& tanning experimental plot, Lalkuan) 16(mixed biodiversity plot, Lalkuan)		224	Timber and Medicinal	India; South China, Malaysia.
172	Fabaceae; <i>Pterocarpus santalinus</i> L.	 Raktchandan	Near threatened (IUCN)													1 (Arboretum, Haldwani); 2(Mix biodiversity plot, Lalkuan) 5 (Public Health Garden)		8	Musical Instruments, Medicinal and Food colouring agent	Dry hills of the eastern Deccan from the Godawari to the Palar river

173	Lauraceae; <i>Persea americana</i> Mill.															1 (Arboretum, Haldwani) 10 (Food Forest Plot)		11	Edible	South central Mexico
		Avocado																		
174	Malvaceae; <i>Thespesia populnea</i> Correa.															1 (Arboretum, Haldwani)		1	Medicinal	Western Ghats; Myanmar
		Bhendi tree																		
175	Verbenaceae; <i>Vitex pinnata</i> L.		Least concern (IUCN)													1 (Arboretum, Haldwani)		1	Medicinal, Fuel wood and Timber	South east asia
		Ahoi																		
176	Dipterocarpaceae; <i>Shorea robusta</i> Roth		Least concern (IUCN)													1 (Nakshtra Vaatika, Haldwani); 2 (Arboretum, Haldwani); 1(Buddha vaatika)		4	Timber and Medicinal	Indian Subcontinent
		Sal																		
177	Ulmaceae; <i>Holoptelea integrifolia</i> (Roxb.)Planch															13 (Arboretum, Haldwani) ; 2 (Miyawaki, Haldwani)		15	Medicinal	Indian subcontinent, Indo China and Myanmar .
		Kanju																		
178	Meliaceae; <i>Melia composita</i> Wall.		Least Concern (IUCN)	Lalkuan	544										544	1050 PipalParao (Progeny Trial); 300 Pipalparao (Spacing trial); 300 Chakferi block (Progeny trial); 1000 Tanda block (Progeny		3324	Fuel wood, Timber Insecticide and Land reclama tion	Tropical regions of Asia and India.

																	Trial); 106(Sal associate experimental plot, Lalkuan)				
179	Fabaceae; <i>Dalbergia latifolia</i> Roxb,	 Kala Shisam	Vulnerable (IUCN)														594 Pipalparao (Suitability trial); 1 Arboretum, Haldwani; 940 (Kala Shishamexperimental plot, Lalkuan)		1535	Timber	Southeast India
180	Bombacaceae; <i>Bombax ceiba</i> L.	 Semal		Lalkuan	3										3		96 Chakferi block (Seed Orchard); 11 (Miyawaki, Haldwani); 10 (Arboretum, Haldwani); 5 (Public Health Garden)		125	Edible Medicinal and Timber	India, Myanmar and Sri Lanka.
181	Verbenaceae; <i>Premna latifolia</i> Roxb.	 Agnimantha		Haldwani	6	Lalkuan	100	Sarिताal	50						156		3(Miyawaki, Haldwani); 1(Dashmool Demo Plot, Haldwani); 41(Dashmool species experimental plot, Lalkuan); 10 (Public Health Garden)		211	Medicinal	West Bengal and Northeast India.
182	Tiliaceae; <i>Grewia tiliaefolia</i> Vahl.	 Dhaman															22 Pipalparao (Mixed Biodiversity Plot); 1 (Arboretum, Haldwani); 16(Sal associate experimental site, Lalkuan); 10 (Shrub conservatory, Lalkuan)		39	Medicinal and Timber	Peninsular India; Sri Lanka; Northwest India.
183	Rutaceae; <i>Limonia acidissima</i> L.	 Kaith		Lalkuan	5	Shyam pur	1000								1005		25 Pipalparao (Mixed Biodiversity Plot); 16 (Sal associate site, Lalkuan)		1046	Edible, Medicinal, Timber and Fuelwood	Bangladesh, India and Sri Lanka.
184	Oleaceae; <i>Schrebera swietenioides</i> Roxb.	 Van Palas	Threatened (State Biodiversity Board)	Lalkuan	12										12		3 Pipalparao (Mixed Biodiversity Plot); 650 (VanPalas Conservation Plot, Haldwani); 7(Sal Associate Experimental plot, Lalkuan)		672	Medicinal and Timber	Near endemic to Indian sub continent.

185	Mimosaceae; <i>Prosopis cineraria</i> (L.)Druce	 Shami		Lalkuan	107										107	1 (Nav GrahaVaatika); 1 (Sarv Dharmvaatika); 4 (Miyawaki, Haldwani); 3(Sal associate experimental site, Haldwani); 10 (Public Health Garden)		126	Religious , Medicinal, Fuelwood and Timber	Western Asia and Indian Subcontinent.
186	Sapotaceae; <i>Mimusops elengi</i> L.	 Maulshree	Least concern (IUCN)													1 (Nakshtra Vaatika); 1(Sarv DharmVaatika) 5 (Public Health Garden)		7	Religious Medicinal Fuelwood and Timber	South Asia, SE.Asia.
187	Anacardiaceae; <i>Mangifera indica</i> L.	 Aam	Data deficient (IUCN)	Lalkuan	11										11	1 (Nakshtra Vaatika; 1 (Sarv DharmVaatika); 1 (Buddha Vaatika) 1 (Arboretum, Haldwani);10 (Food Forest Lalkuan)		25	Edible, Medicinal, Timber and Fuelwood	Indian subcontinent.
188	Musaceae; <i>Musa paradisiaca</i> L.	 Banana														1 (SarvDharmVaatika); 10 (Food Forest Lalkuan)		11	Edible Mythological and Medicinal.	
189	Mimosaceae; <i>Albizia lebbeck</i> Benth.	 Siras														1(Arboretum Haldwani)		1	Fodder and Fuelwood	Indian subcontinent.
190	Myrsinaceae; <i>Ardisia solanacea</i> Roxb.	 Makhmal		Lalkuan	5										5	8 (Miyawaki, Haldwani); 17(Sal associate experimental plot, Lalkuan)		30	Edible and Medicinal	Sub Himalayan tracts from Jammu upto eastwards in Assam, Khasi hills.
191	Apocynaceae; <i>Wrightia tinctoria</i> R.Br	 Dudhi		Lalkuan	13										13	20 (Miyawaki, Haldwani); 16 (Mixed biodiversity plot, Lalkuan)		49	Edible Medicinal and Timber	Central India and Western peninsula .

192	Lythraceae; <i>Lagerstroemia parviflora</i> Roxb.	 Dhodi		Lalkuan	88										88	1(Arboretum Haldwani); 69(Color& tanning experimental plot, Lalkuan)		158	Timber	Sub Himalayan tracts, Assam and lower Bengal.
193	Bignoniaceae; <i>Tabebuia rosea</i> DC.	 Basant Rani	Least Concern (IUCN)													16(Mixed biodiversity plot, Lalkuan)		16	Medicinal	Native to S.America from Argentina north through Central America to Mexico.
194	Apocynaceae; <i>Alstonia scholaris</i> (L.)R. Br.	 Chitvan	Least Concern (IUCN)													1(Arboretum Haldwani) 4 (Tower of Flowers); 5 (Public Health Garden)		10	Medicinal	Native to India
195	Euphorbiaceae ; <i>Mallotus philippensis</i> Muell.Arg.	 Rohini		Lalkuan	9	Shyam pur	80	Kalsi	500						589	1(Arboretum Haldwani); 10(Colour &Tannin Plot, Lalkuan)		600	Timber and Medicinal	Indian subcontinent.
196	Capparaceae; <i>Crataeva religiosa</i> Forst.	 Veruna		Lalkuan	225										225	16(Mixed biodiversity plot, Lalkuan)		241	Medicinal	Peninsular India, Western India, Gangetic Plains and Eastern India up to Tripura and Manipur.

197	Euphorbiaceae; <i>Croton tiglium</i> L.		Least Concern (IUCN)													1 (Arboratum, Haldwani) 4 (Mix biodiversity plot, Lalkuan); 15 (Public Health Garden)		20	Medicin al	Indian subcontin ent.
198	Salicaceae; <i>Xylosma longifolium</i> Clos.			Kalsi	200											15(Sal associate experimental site, Lalkuan)		215	Medicin al and Edible	India and Pakistan.
199	Bombacaceae; <i>Ceiba pentandr a</i> (L.) Gaertn.		Least Concern (IUCN)													16(Mixed biodiversity plot, Lalkuan)		16	Medicin al	Native to South America
200	Meliaceae; <i>Swietenia mahagoni</i>		Near threatened (IUCN)													1(Sal associate experimental site, Lalkuan); 500 (Mahogany plot)		501	Medicin al	Native to Southern Mexico to Peru and Brazil.
201	Sterculiaceae; <i>Sterculia alata</i> Roxb.															8(Mixed biodiversity plot, Lalkuan)		8	Medicin al and Orname ntal	Tista Valley, Sikkim and lower Myanmar .

202	Salvadoraceae; <i>Salvadora persica</i> L.	 Meswak	Least Concern (IUCN)	Lalkuan	7										7	12(Sal associate experimental site)		19	Medicinal	India (Aravali hills)
203	Burseraceae; <i>Garuga pinnata</i> Roxb.	 Kharpat													102	93(Sal associate experimental plot, Lalkuan)		195	Medicinal	Indian subcontinent.
204	Moraceae; <i>Artocarpus lacucha</i> Roxb.	 Badhal		Lalkuan	3										3	8 (Sal associate experimental site, Lalkuan)		11	Medicinal and Edible	Indian subcontinent.
205	Bignoniaceae; <i>Tecomella undulata</i> G. Don	 Kumantha														1(Sal associate experimental site, Lalkuan)		1	Medicinal	Shivalik tracts and Baluchistan
206	Bignoniaceae; <i>Radermachera xylocarpa</i> K.Schum.	 Padri tree														4 (Sal associate experimental site, Lalkuan)		4	Ornamental	Endemic (India)
207	Caesalpiniaceae; <i>Peltophorum pterocarpum</i> (D.C) K.Heyne															2(Sal associate experimental site, Lalkuan)		2	Ornamental	Indian subcontinent

208	Tiliaceae; <i>Grewia tenax</i> Fiori	 Gondni		Lalkuan	42											42	4(Sal associate experimental site, Lalkuan)		46	Medicinal	Indian subcontinent
209	Burseraceae; <i>Bursera microphylla</i> Gray	 Barsera	Least Concern (IUCN)														4(Sal associate experimental plot, Lalkuan)		4	Medicinal	Mexico
210	Sapotaceae; <i>Manilkara hexandra</i> (Roxb.)Dubard	 Khirni															3(Sal associate experimental site)		3	Medicinal	Indian subcontinent.
211	Combretaceae; <i>Terminalia arjuna</i> Wight et Arn.	 Arjun		Lalkuan	60											60	1 (Buddha vaatika); 10 (Public Health Garden)		71	Medicinal	Central, North and South India, Sri Lanka.
212	Apocynaceae; <i>Holarrhena anrtidysenterica</i> (L.)R.Br.	 Kutuj		Lalkuan	40											40			40	Medicinal	Indian subcontinent.
213	Meliaceae; <i>Toona ciliata</i> M. Roem.	 Tun	Least Concern (IUCN)	Lalkuan	10	Kalika	50	Tangsa	500	Kalsi	80	Gaja	1960	Sariat	220	2820			2820	Timber and Host to Orchid species	Sub Himalaya tracts, Western and Eastern Ghats, Nepal and Myanmar

214	Mimosaceae; <i>Leucaena leucocephala</i> (Lam.)de Wit	 Subabul		Lalkuan	10										10			10	Fodder and Timber	Tropical and subtropical North America.
215	Caesalpiniaee; <i>Cassia siamea</i> (Lam.) Irwin et Barneby	 Kassod	Least Concern (IUCN)	Lalkuan	5										5			5	Fodder	South and Southeast Asia.
216	Fabaceae; <i>Pithecellobium dulce</i> (Roxb.) Benth.	 Jungle jalebi	Least Concern (IUCN)	Lalkuan	35										35			35	Medicinal	Native to Mexico
217	Myrtaceae; <i>Eucalyptus citriodora</i> K.D.Hill & L.A.S. John.	 Lemon eucalyptus	Least Concern (IUCN)	Lalkuan	39										39	5 (Gum Plot, Lalkuan)		44	Medicinal and Perfumery	Temperate and tropical north eastern Australia.
218	Mimosaceae; <i>Acacia senegal</i> (L.)Br.			Lalkuan	18										18	102 Gum species experimental plot		120	Gum	West coast of India; Pakistan.

219	Anacardiaceae; <i>Lannea coromandalica</i> (Houtt.) Merr.	 Indian Ash tree		Lalkuan	59										59	99 (Gum & dye experimental plot, Lalkuan); 15 (Mixed biodiversity plot)		173	Gum and Dye	South and Southeast Asia, Sri Lanka and Southern China.
220	Myrtaceae; <i>Syzygium aromaticum</i> (L.) Merr. & L.M. Perry	 Laung														5 (Aromatic species project site, Lalkuan)		5	Spice and Medicinal	Native to the Maluku Islands (Moluccas) in Indonesia.
221	Ulmaceae; <i>Trema politoria</i> (Planch.) Blume	 Indian charcoal		Lalkuan	35										35			35	Medicinal and Charcoal	Nepal, Bhutan, China, Myanmar and Vietnam
222	Dipterocarpaceae; <i>Dipterocarpus retusus</i> Blume	 Hollong	Endangered (IUCN)													1 (Bharat Vatika, Haldwani)		1	Plywood Industries	Assam and Arunachal Pradesh; China, Vietnam, Indonesia, Myanmar
223	Pinaceae; <i>Abies spectabilis</i> (D. Don) Mirb.		Near Threatened (IUCN)	Mandal	300										300	Natural Regeneration study, Munsyari		300	Medicinal	India, Pakistan and Nepal
224	Salicaceae; <i>Poplar sp.</i>															Numerous (Lalkuan)			Timber	

225	Myrtaceae; <i>Eucalyptus sp</i>															Numerous (Lalkuan, Haldwani)			Timber and Paper	
226	Boraginaceae; <i>Ehretia laevis Roxb.</i>	 Chamror		Kalsi	195	Shyam pur	50	Lalkuan	15						260	50(River range Kalsi); 100 (Riparian plot); 53 (Miyawaki Haldwani); 1 (Arboretum, Haldwani); 400 approx. (Mixed biodiversity plot, Lalkuan); 195(lantana plot kalsi); 20 (riparian plot, Haridwar)		1079 approx	Medicinal	China, Bhutan, India, Pakistan and Vietnam.
227	Salicaceae; <i>Flacourtia ramontchi</i> L'Herit	 Indian plum		Kalsi	05										05	5 Pipalparao (Mixed Biodiversity Plot); 2 (Arboretum, Haldwani); 16 (Mixed biodiversity plot, Lalkuan)		28	Edible	Asian continent.
228	Moraceae; <i>Streblus asper</i> Laur.	 Dahiya	Least concern (IUCN)	Kalsi	35	Lalkuan	3								38	50(Riparian plot); 9 (Miyawaki, Haldwani) 1 (Arboretum, Haldwani); 16 (Mixed biodiversity plot, Lalkuan); 50 (Riparian plot)		164	Medicinal	India, Sri Lanka, Thailand, Malaysia and Indonesia .
229	Rhamnaceae; <i>Zizyphus jujuba</i> Lam.	 Red date		Kalsi	750										750			750	Edible	India and Myanmar
230	Bixaceae; <i>Bixa orellana</i> L.	 Sindoori	Least Concern (IUCN)	Shyam pur	50	Lalkuan	44	Shyam pur	40						134	2(Arboretum, Haldwani); 69 (Color and tannin experimental plot, Lalkuan); 50 lantana plot kalsi, 20 RET plot); 10 (Public Health Garden)		315	Dyeing agent	Native to a region between northern South America and Mexico .

231	Rutaceae; <i>Acronychia pedunculata</i> (L.) Miq.	 Asper		Shyampur	50										50			50	Edible and medicinal	Tropical regions of Asia.
232	Fabaceae; <i>Hardwickia binata</i> Roxb.	 Anjan														40 approx (Sal associate experimental site, Lalkuan)		40	Making agricultural equipment	E. Asia and southern India.
233	Pandanaceae; <i>Pandanus fascicularis</i>	 Kewada	Least Concern (IUCN)													4(Aromatic species project site, Lalkuan); 3 (Haldwani range)		7	Medicinal and food flavoring.	South Asia, southern India and Myanmar
234	Fabaceae; <i>Pterocarpus dalbergioides</i>	 Padauk	Data Deficient (IUCN)	Lalkuan	100										100	1 (State trees of India); 170 (Padauk suitability plot, Lalkuan)		271	Medicinal	Native range is Andaman Islands
235	Moraceae; <i>Artocarpus incisa</i>	 Breadfruit														1 (State trees of India)		1	Edible and Medicinal	Native to the Pacific islands
236	Thymelaceae; <i>Aquillaria agallocha</i>		Critically endangered (IUCN)													1 (State trees of India)		1	Medicinal	Native to southeast Asia
237	Styracaceae; <i>Styrax benzoin</i> Dryand.	 Loban tree														4 (Other trees, Lalkuan)		4	Medicinal and resin	Sumatra in Indonesia

238	Euphorbiaceae ; <i>Sapium sebiferum L.</i>	 Makhan charbi		Dwar son	50	Patalth od	10								60	1(Arboretum Gaja);43 (Miyawaki Experiment)		10	Used in Manufa cturing candles and making soaps	Native to China
239	Burseraceae; <i>Guggal commiphora</i>	 Indian bdellium tree		Lalku an	10										10			10	Aromati c and Medicin al	Native to India
240	Annonaceae; <i>Annona reticulata</i>	 Bullock's Heart		Hald wani	5											1 Ramayan Vaaatika		6	Edible and Medicia l	Native to Mexico, Central America, and South America
241	Annonaceae; <i>Annona muricata</i>	 Soursop		Hald wani	5											1 Ramayan Vaaatika		6	Edible and Medicia l	Native to Central and tropical South America
242	Bignoniaceae; <i>Millingtonia hortensis</i>	 Indian cork tree		Hald wani	6										6	5 (Tower of Flowers)		11	Orname ntal	Native to South Asia & South East Asia
243	Apocynaceae; <i>Calotropis gigantea</i>	 Crown Flower		Lalku an	5										5	5 (Public Health Garden)		10	Medicin al	Native to Indian Sub Continent

244	Simaroubaceae ; <i>Ailanthus excelsa</i>	 Tree of Heaven		Hald wani	5										5			5	Medicinal	Found in India and Sri Lanka
245	Euphorbiaceae ; <i>Jatropha curcas</i>	 Barbados nut		Hald wani	6										6			6	Medicinal	Native to Mexico and Central America
246	Fabaceae; <i>Acacia leucophloea</i>	 Reonja		Hald wani	6										6			6	Edible and Medicinal	Native to Southeast Asia
247	Fabaceae; <i>Acacia auriculiformis</i>	 Northern black wattle														8 (Pollinator Park)		8	Ornamental and Furniture making	Native to Australia, Indonesia, and Papua New Guinea.
248	Sapindaceae; <i>Aesculus assamica</i>	 East Himalayan Horse Chestnut		Hald wani	6													6	Ornamental	Native to India
249	Lecythidaceae; <i>Barringtonia acutangula</i>	 Freshwater Mangrove		Hald wani	10													10	Edible and Medicinal	Native to Southern Asia
250	Fabaceae; <i>Cassia javanica</i>	 Pink shower		Hald wani	10													10	Medicinal and Timber	Native to Southeast Asia

251	Myrtaceae; <i>Corymbia citriodora</i>	 Spotted gum		Hald wani	10													10	Armatic and Medicinal	Endemic to north eastern Australia.
252	Fabaceae; <i>Erythrina crista galli</i>	 Cockspur coral tree		Hald wani	10													10	Medicinal	Native to Argentina, Uruguay, southern Brazil and Paraguay.
253	Podocarpaceae ; <i>Podocarpus macrophyllus</i>	 Buddhist pine		Hald wani	10													10	Ornamental	Native to Southern Japan
254	Sterculiaceae; <i>Pterygota alata</i>	 Buddha Coconut		Hald wani	10													10	Medicinal	Native to Indian Subcontinent
255	Cupressaceae; <i>Taxodium distichum</i>	 Bald cypress		Hald wani	10													10	Timber and Medicinal	Native to Southeastern United States
256	Salicaceae; <i>Populus deltoides</i>	 Eastern cottonwood		Hald wani	10													10	Timber	Native to North America
257	Caesalpiniaceae; <i>Peltophorum ferrugineum</i>	 Copperpod		Hald wani	10													10	Ornamental and Fodder	Native to tropical southeastern Asia

258	Euphorbiaceae ; <i>Trewia nudiflora</i>	 False White Teak		Hald wani	10														10	Orname ntal	Native to Indian Subconti nent
259	Calophyllaceae; <i>Mammea suriga</i>	 Surangi		Hald wani	10										10 (Aromatic Garden, Lalkuan)				20	Aromatic	Endemic to Western Ghats
260	Dipterocarpaceae; <i>Vateria indica</i>	 White dammar	Vulnerable (IUCN); Critically Endangered (Indian Biodiversity Portal),	Hald wani	10														10	Medicina l, Furniture making and Source of resin	Endemic to Western Ghats
261	Clusiaceae; <i>Garcinia indica</i>	 Kokum		Hald wani	10														10	Orname ntal and Edible	Native to India
262	Dipterocarpaceae; <i>Hopea wightiana</i>	 Pav	Endangered (IUCN)	Hald wani	10														10	Timber and Fuelwo od	Endemic to the Western Ghats
263	Myrataceae; <i>Syzygium samarangense</i>	 Chambakka		Hald wani	10											5 (Public Healthn Garden			15	Edible and Aromati c	Natuveto Malay Peninsula .
264	Myrtaceae; <i>Syzygium hemisphericum</i>	 Bhedas		Hald wani	10														10	Medicin al	Native to India

265	Rutaceae; <i>Citrus limetta</i>	 Mosami		Haldwani	10											10 (Food Forest Plot)		20	Edible	Native to southern regions of Iran
266	Cupressaceae; <i>Cunninghamia lanceolata</i> (Lamb) Hook		Least concern (as per IUCN)	Kalika	2	Dwarson	4								6			6	Ornamental	Native to China
267	Sapindaceae; <i>Aesculus indica</i>	 Pangar		Kalika	341	Dwarson	596	Mandal	100	Gaja	3600				4637	5 Saritatal (Medicinal beds)		4642	Medicinal	Near Endemic
268	Myricaceae; <i>Myrica sapida</i>	 Shillong kaphal														363 (Dwarson block)		363	Fuelwood and fodder	Near Endemic
269	Euphorbiaceae : <i>Mallotus nudiflorus</i>	 Gutel														30 (Riparian plot)		30	Medicinal	Indian Subcontinent, SE Asia
270	Anacardiaceae ; <i>Anacardium occidentale</i>	 Kaju														1 (Arboretum, Haldwani)		1	Edible	Tropical America
271	Fabaceae; <i>Adenanthera pavonina</i>	 Red Sandalwood		Haldwani	5										5			5	Edible and Medicinal	Ntve to America

272	Acanthaceae; <i>Adhatoda beddomei</i>	 Malabar nut		Hald wani	5										5			5	Medicinal	Indian subcontinent
273	Oxalidaceae; <i>Averrhoa bilimbi</i>	 Bilimbi		Hald wani	5										5			5	Medicinal	Native to Malaysia and Indonesia
274	Euphoiaceae ; <i>Baccaurea courtallensis</i>			Hald wani	5										5			5	Medicinal	Endemic to Southern Western Ghats
275	Caesalpiniaceae ; <i>Brownea coccinea</i>	 Scarlet Flame Bean		Hald wani	5										5			5	Medicinal	Native to America
276	Myrtaceae; <i>Eugenia uniflora</i>	 Suriname cherry		Hald wani	5										5			5	Medicinal	Native to tropical South America's east coast
277	Malpighiaceae; <i>Malpighia glabra</i>	 Wild crapemyrtle		Hald wani	5										5			5	Medicinal	Native to south Texas south through Mexico, Central America, and the Caribbean to South America as far as Peru and Brazil.

278	Sterculiaceae ; <i>Pterospermum rubiginosum</i>	 Rusty Kanak Champa		Hald wani	5										5			5	Medicinal	Endemic to Southern Western Ghats
279	Simaroubaceae ; <i>Quassia amara</i>	 Bitter-wood		Hald wani	5										5			5	Medicinal	Native in the tropics of Southern America
280	Simaroubaceae ; <i>Quassia indica</i>			Hald wani	5										5			5	Medicinal	Native to India, Myanmar and Sri Lanka.
281	Bignoniaceae; <i>Stereospermum colais</i>	 Yellow Snake Tree		Hald wani	5										5			5	Medicinal	Native to India, Myanmar and Sri Lanka.
282	Lecythidaceae ; <i>Barringtonia racemosa</i>	 Powder-puff tree		Hald wani	5										5			5	Medicinal	East Africa to West Pacific
283	Anacardiaceae ; <i>Buchanania lanceolata</i>			Hald wani	5										5			5	Medicinal	Endemic to India.
284	Ebenaceae; <i>Diospyros ebenum</i>	 Ceylon ebony		Hald wani	5										5			5	Medicinal	Native to India, Sri Lanka and Indonesia

285	Phyllanthaceae ; <i>Phyllanthus myrtifolius</i>	 Mousetail plant		Hald wani	5										5			5	Medicin al and Orname ntal	Native to SW India and Sri Lanka.
286	Bignoniaceae; <i>Tabebuia pentaphylla</i>	 Rosy trumpet tree		Hald wani	5	Lalkuan	20								25			25	Orname ntal	Native to Central and South America
287	Rubiaceae; <i>Hamelia patens</i>	 Texas firebush		Hald wani	5										5			5	Medicin al and Orname ntal	Native to the American subtropic s and tropics.
288	Fabaceae; <i>Peltophorum pterocarpum</i> (DC.) Backer ex K.Heyne	 Yellow flametree														4 (Other trees, Lalkuan)		4	Orname ntal tree	Native to tropical southeast ern Asia
289	Fabaceae; <i>Paraserianthes lophantha</i> (Ven t.) I.C.Nielsen.	 Brush wattle														4 (Tower of Flowers)		4	Orname ntal	Exotic
290	Lecythidaceae; <i>Couropita guianensis</i>	 Cannon Ball Tree		Lalku an	5										5	25 (Aromatic Blocks)		30	Medicin al/ Aromati c	It is native to the tropic al forests of Central a nd South America.
291	Urteaceae; <i>Debregeasia velutina</i>	 Tusyari		Dwar son	250										250			250	Medicin al	Native to Asia

292	Oleaceae; <i>Olea europaea</i> L.	 Brown Olive														5 (Other trees, Lalkuan) 4 (Aromatic Project Site), 5 (Public Health Garden)		14	Medicinal & edible oil	Mediterranean Europe, Asia, and Africa
293	Fabaceae; <i>Erythrina variegata</i> L.	 Indian coral tree	Least Concern (IUCN)													3 (Other trees, Lalkuan)		3	Ornamental tree	Native to tropical and subtropical regions of eastern Africa, the Indian Subcontinent, northern Australia.
294	Bignoniaceae; <i>Tabebuia aurea</i> (Silva Manso) Benth. & Hook. f. ex S. Moore.	 silver trumpet tree														4 (Other trees, Lalkuan)		4	Ornamental tree	Native to South America.
295	Bignoniaceae; <i>Jacaranda mimosifolia</i>	 Blue Jacaranda		Tangsa	60										60	4 Tower of Flowers		64	Medicinal & Ornamental	Exotic
296	Caesalpiniaceae; <i>Senna surattensis</i> (Burm.f.) H.S.Irwin & Barneby	 Glaucous Cassia														4 Tower of Flowers		4	Medicinal & Ornamental	Exotic

297	Fabaceae; <i>Caesalpinia pulcherrima</i> (L.) Sw.	 Guletura														4 Tower of Flowers		4	Orname ntal	Exotic
298	Apocynaceae; <i>Plumeria rubra</i> L.	 Champa (Pink)														3 (Tower of Flowers); 10 (Aromatic Project Site)		13	Orname ntal	Exotic
299	Lythraceae; <i>Lagerstroemia indica</i> L.	 Sawani														6 (Tower of Flowers)		6	Medicin al & Orname ntal	Native to Indian subcontin ent
300	Magnoliaceae; <i>Michelia champaca</i> L.	 Champa														4 Tower of Flowers		4	Medicin al & Orname ntal	Native to Indian subcontin ent
301	Meliaceae; <i>Chukrasia tabularis</i> A.Juss.	 Chukrasia														4 Tower of Flowers		4	Medicin al & Orname ntal	Native to Indian subcontin ent
302	Goodeniaceae; <i>Scaevola sericea</i> Forst. fil.			Lalku an	5										5			5	Medicin al	Found in coastal locations in the tropic al areas of the Indo- Pacific.

303	Myristicaceae; <i>Myristica fragrans</i> Houtt.	 Nutmeg		Lalkuan	5										5	3 (Aromatic Project Site, Lalkuan)		8	Medicinal	Native of Moluccas, or Spice Islands, in the Indonesian Archipelago.
304	Thymelaeaceae ; <i>Aquilaria malaccensis</i> Lam.	 Agar Wood	Critically endangered (IUCN)	Lalkuan	65	Bhujiy aghat	250								315	210 (Agarwood Conservation Plot); 10 (Aromatic Garden, Lalkuan)		535	Medicinal/ Aromatic	Found in Bangladesh, Bhutan, India, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, and Thailand.
305	Rubiaceae; <i>Gardenia latifolia</i>	 Papda														8(Aromatic Project Site, Lalkuan)		8	Medicinal/ Aromatic	It is found in the forests of Madhya Pradesh in India.
306	Caesalpiniaceae; <i>Bauhinia tomentosa</i>	 Yellow Orchid Tree		Lalkuan	5										5			5	Medicinal	It is found in South Africa, Mozambique, Tropical Africa, India, and Sri Lanka.
307	Sterculiaceae; <i>Sterculia urens</i>	 Ghost tree		Lalkuan	1											5 Gum species experimental plot, Lalkuan		6	Medicinal /Cosmetics and Food	Native to India

308	Myristicaceae; <i>Myristica malabarica</i>	 Malabar Nutmeg	Vulnerable (IUCN)													2 (Aromatic Project Site, Lalkuan)		2	Medicinal	Endemic to Western Ghats in southwest India.	
309	Lauraceae <i>Cinnamomum verum</i>	 Dalchini														5 Saritatal (wild spices); 10 (Public Health Garden)		15	spice	Native to Sri Lanka	
310	Ericaceae; <i>Lyonia ovalifolia</i> (Wall.) Drude	 Anyar		Mandal	300	Tangsa	100	Patalthod	100	Saria taal	45					545		545	Medicinal	Himalaya	
311	Symplocaceae; <i>Symplocos chinensis</i> (Lour.) Druce	 Lodh				Tangsa	50	Saria taal	6							56		56	Medicinal	Himalaya	
312	Aquifoliaceae: <i>Ilex dipyrena</i>	 Himalayan holy						Devvan	25							25		25			
313	Annonaceae; <i>Annona squamosa</i>	 Sharifa															5 (Public Health Garden)		5	Medicinal	Indigenous to tropical South America and the West Indies

314	Pistaceaceae; <i>Pistacia integerrima</i>	 Kaakarasingi														5 (Public Health Garden)		5	Medicinal	Native to Asia
315	Annonaceae; <i>Cananga odorata</i>	 Ylang ylang														10 (Aromatic Project Site)		10		Native to parts of Thailand and Vietnam
316	Sapindaceae; <i>Litchi chinensis</i>	 Litchi														10 (Food Forest Plot)		10	Edible	Native to the Southeast and Southwestern China
317	Rutaceae; <i>Citrus sinensis</i>	 Sweet orange														10 (Food Forest Plot)		10	Edible	-
318	Rutaceae; <i>Citrus pseudolimon</i>	 Galgal														10 (Food Forest Plot)		10	Edible	Indigenous to India
319	Myrtaceae; <i>Psidium guajava</i>	 Guava														10 (Food Forest Plot)		10	Edible	Native to the Caribbean, Central America and South America

320	Lamiaceae; <i>Vitex parviflora</i>	 Molave tree														4 (Public Healthn Garden)		4	Medici nal	Native to the Philippin es and Indonesia
321	Lamiaceae; <i>Vitex agnus- castus</i>	 Chaste tree														5 (Public Healthn Garden)		5	Medici nal	Native to Mediterra nean region
322	Fabaceae; <i>Erythriana arborescens</i> L.	 Madar		Kalika	569	Gaja	205								774			774	Medicin al	
323	Cupressaceae; <i>Juniperus macropoda</i>			Kalika	30										30			30	Decorat ive	Native to Western Asia
324	Lauraceae; <i>Cinnamomum zeylanicum</i>	 Dalchini														5 (Public Healthn Garden)		5	Medicin al and Spices	Native to Sri Lanka and Southern parts of India

II .Herb Species

Herb species are being conserved across all the Research Ranges with Aromatic Herbs specifically being conserved at Gaja and Haldwani Range:

I. Aromatic:

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery										Experiment Site	Preservation Plot	Grand Total	Use	Native Region	
				Nursery Name															Total
				1		2		3		4		5							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Valerianaceae; <i>Nardostachys jatamansi</i> DC.	 Jatamansi	Threatened (State Biodiversity Board); Critically endangered (IUCN); Collection from wild Closed for the time being by Uttarakhand Government	Mandal	100	Tangsa	20	Kalika	1260	Dwars on	380			1760	1400 (RET demonstration plot , Mana vanpanchayat); 200(RET demonstration plot, Harkot, Munsyari)	23	3383	Medicinal and Aromatic	Endemic to Indian Himalayan region.
2.	Valerianaceae; <i>Valeriana Jatamansi</i> Jones	 Sameva/tagar	Collection from wild Closed for the time being by Uttarakhand Government	Mandal	100	Dwars on	80	Patalthod	1950	Devvan	02	Kalika	50	2182	50 (RET demonstration plot, Harkot, Munsyari)		2232	Medicinal and Aromatic	Indian Himalayan Region
3.	Amaryllidaceae; <i>Allium stracheyi</i> Baker	 Faran	Vulnerable (ENVIS endemic and threatened Taxa) and Vulnerable (Indian Biodiversity Portal)	Mandal	150	Patalthod	500	Devvan	03					653	5 pars (Mana vanpanchayat); 150 (RET demonstration plot, Harkot, Munsyari); 50Bhujiyaghat(Aromatic plants); 36 (Aromatic species project site, Lalkuan)		883	Spice and Aromatic	Endemic to Himalaya

4.	Zingiberaceae; <i>Hedychium spicatum</i> Han. ex Sm.	 Kapur Kachri		Mandal	3600	Tangsa	250	Patalthod	1900	Devvan	03	Gaja	57	5810	30 (Bhujiyaghat (Aromatic plants); 100 (RET demonstration plot, Harkot, Munsyari); 50 (Riparian plot, Shyampur)		5990	Medicinal and Aromatic	Near Endemic
5.	Amaryllidaceae; <i>Allium wallichii</i> Kunth	 Duna		Mandal	33	Kalika	125	Devvan	02	Patalthod	10			170			170	Spice and Aromatic	India, Nepal, Bhutan and Myanmar.
6.	Apiaceae; <i>Selinum Wallichianum</i> (DC.) Raizada & H.O. Saxena	 Bhootkeshi		Mandal	15	Dwarson	5							20			20	Aromatic	Himalayas
7.	Asteraceae; <i>Spilanthes oleracea</i> L.		Vulnerable (As per Indian biodiversity portal)	Mandal	1600	Kalsi	90	Devvan	420	Dwarson	20			2130	25(Aromatic species project site, Lalkuan) 20(R.E.T Devvan)		2155	Medicinal and Aromatic	Native to the tropics
8.	Asteraceae; <i>Artemisia maritima</i> L.exHook.f.	 Kudza		Dwarson	258									258	20 (Mana Nursery); 5 (Aromatic species project site, Lalkuan)		310	Medicinal and Aromatic	France, Italy, Russia and India.
9.	Zingiberaceae; <i>Elettaria cardamomum</i> (L.) Maton	 Chhotiilaychi													36(Aromatic species project site, Lalkuan), 2 (Gaja) Wild spices		38	Spices and Medicinal	Southern India
10.	Zingiberaceae; <i>Amomum subulatum</i> Roxb.	 Badi ilaechi		Kalsi	50									50	19(Aromatic species project site, Lalkuan) 5 (Sarital) spices		74	Spices and Medicinal	Eastern Himalaya

11.	Lamiaceae; <i>Mentha piperata</i> L.	 Pipermint		Kalsi	150	Patalthod	590	Dwars on	70	Devvan	06	Tangsa	50	866	20(Aromatic species project site, Lalkuan)		886	Medicinal and Aromatic	Indigenous to Europe and the middle East.
12.	Lamiaceae; <i>Mentha spicata</i> L.	 Pudhina		Kalsi	80	Gaja	112	Tangsa	200					392	40(Aromatic species project site, Lalkuan) 23(Aromatic species project site, Lalkuan)		455	Medicinal and Aromatic	Europe and Southern Asia.
13.	Lamiaceae; <i>Mentha citrata</i> var. <i>Kiran</i>														7(Aromatic species project site)		7	Tea and perfumery	
14.	Acoraceae; <i>Acorus calamus</i> L.	 Bach	Least concern (IUCN) ; Collection from wild closed for the time being by Uttarakhand Government	Kalsi	120	Patalthod	450	Tangsa	80	Kalika	50	Devvan	06	626	500 (Medicinal conservatory, Haldwani); 100 (RET plot and Riparian plot, Shyampur); 55 (Aromatic species project site, Lalkuan)		1926	Medicinal	India, Japan, China, Pakistan and Europe.
15.	Zingiberaceae; <i>Curcuma aromatic</i> Salisb.	 Van haldi		Dwars on	50	Kalika	15							65	80(Aromatic species project site, Lalkuan)		145	Medicinal and Aromatic	Eastern Himalayas and Western Ghats.
16.	Apiaceae; <i>Angelica glauca</i>	 Choru	Endangered (Threatened Plants of India, BSI)	Patalthod	12	Dwars on	5	Devvan	02	Mandal	50			19	20(RET demonstration plot, Harkot, Munsyari); 20 (Mana nursery, Gopeshwar)		109	Medicinal and Aromatic	Endemic to Himalaya (IHR)
17.	Amaryllidaceae; <i>Allium ursinum</i> L.	 Van lehsun		Kalsi	40	Lalkuan	10							50			50	Medicinal and Edible	Europe and Northern Asia.

18.	Asteraceae; <i>Jurinea macrocephala</i> (Royle)C.B.Clarke		Critically Endangered BSI (Flora Of Uttarakhand Vol, 1)	Devva n	400									400	4 (Mana vanpanchayat); 6 (Mana Nursery)		410	Aromatic	Indian Himalayan region.
19.	Zingiberaceae; <i>Alpinia galangal</i> (L.)Willd.			Bhuji yaghat	20									20	30 (Bhujiyaghat Aromatic plants); 100 (RET plot, Shyampur); 10 (Aromatic Garden, Lalkuan); 10 (Public Health Garden)		170	Medicinal	Indonesia.
20.	Lamiaceae; <i>Melissa officinalis</i> L.														25 Bhujiyaghat(Aromatic plants); 10(Aromatic species project site, Lalkuan)		35	Medicina, Flavourin g agent	Native to south central Europe, the Mediterranean Basin, Iran, and Central Asia.
21.	Lamiaceae; <i>Pogostemon patchouli</i> Benth.														50Bhujiyaghat(Aromatic plants); 25(Aromatic species project site, Lalkuan)		75	Medicinal and Perfumer y	Pakistan, India, China, Japan and Myanmar.
22.	Lamiaceae; <i>Coleus barbatus</i> Andrews														20 Bhujiyaghat (Aromatic plants) 10 (Aromatic Project Site); 10 (Public Health Garden)		40	Medicinal	Indian Himalayan Region
23.	Geraniaceae; <i>Geranium robertianum</i> L.														10 Bhujiyaghat(Aromatic plants); 5 (Aromatic species project site, Lalkuan)		15	Aromatic	Europ and part of Asia.

24.	Lamiaceae; <i>Coleus amboinicus</i> Lour.	 Van ajwain		Lalkuan	8									8	10 Bhujiyaghat (Aromatic plants) 100 (RET plot, Shyampur); 24 (Aromatic species project site, Lalkuan); 20 (Public Health Garden)		162	Medicinal and spice	India; and Africa
25.	Saururaceae; <i>Houttuynia cordata</i> Thunb.	 Fishmint		Mandal	15									15	30(Aromatic species project site, Lalkuan)		45	Medicinal and Cooking	Southeast Asia
26.	Lamiaceae; <i>Origanum majorana</i> L.	 Sweet marjoram		Lalkuan	10									10	32(Aromatic species project site, Lalkuan)		42	Aromatic	Mediterranean regions and Indian Himalayan Region.
27.	Asteraceae; <i>Artemisia annua</i> L.	 Sweet wormwood													13(Aromatic species project site, Lalkuan)		13	Aromatic	Temperate Asia.
28.	Piperaceae; <i>Piper logum</i> L.	 Pipli		Kalsi	150									150	15 (Public Health Garden)		165	Medicinal and Spice	Indo Malaya region and India.
29.	Apiaceae; <i>Heracleum candicans</i> Lindl.	 Patrala		Patalthod	550									550			550	Medicinal and Spice	Near Endemic
30.	Lamiaceae; <i>Mentha arvensis</i> L.	 Pudina		Patalthod	250									250	65 (Aromatic species project site, Lalkuan)		315	Medicinal and Edible	Central Asia, Himalaya, Europe and N America.

31.	Zingiberaceae; <i>Curcuma amada</i> Roxb.	 Aamahaldi												100 (Riparian plot, Shyampur); 50 Bhujiyaghat (Aromatic plants); 20 (Medicinal conservatory, Haldwani); 10(Aromatic species project site, Lalkuan)		180	Medicinal and Aromatic	East Indian Distribution
32.	Zingiberaceae; <i>Zingiber zerumbet</i> (L.)Roscoe ex Sm.	 Shampoo ginger	Data deficient (IUCN)											20 (RET plot, Shyampur) ; 10 (Aromatic species project site, Lalkuan)		30	Medicinal	Asia
33.	Rutaceae; <i>Boenninghausnia albiflora</i> (Hooker) Reich. ex Meisn.	 Dampate				Tangsa	15						15			15	Aromatic	Nepal, Bhutan, China, and Myanmar
34.	Lamiaceae; <i>Plectranthus rugosus</i> Wall. ex Benth.	 Kurkha		Sarita aal	76								76			76	Medicinal	Indian Himalayan Region, Southern Ghats, and Nilgiri region.
35.	Lamaceae; <i>Thymus serphyllum</i> L.			Dwarson	1	Gaja	195	Bhujiyaghat	100				296	25 Bhujiyaghat (Aromaticplants); 5 (Medicinal conservatory, Haldwani)		326	Spice	Native to most of Europe and North Africa.
36.	Agavaceae; <i>Polianthes tuberosa</i> L.	 Rajanigandha												25 (Aromatic species project site, Lalkuan)		25	Medicinal and Perfumery	Mexico
37.	Asteraceae; <i>Tanacetum dolichophyllum</i> (Kitam.)Kitam.	 Dhup gugul		Mandal	20	Patalhod	20						40			40	Medicinal and Aromatic	Pakistan , Nepal and India

38.	Lamiaceae <i>Lavandula angustifolia</i>	 Lavander		Patalthod	20									20			20	Medicinal	Mediterranean region
39.	Iridiaceae; <i>Crocus sativus</i>	 Kesar		Kalika	7									07			07	Medicinal and Spice	.Iran, India, Greece, Morocco, Spain, Italy, Turkey, Pakistan, Azerbaijan, China, and Egypt
40.	Asteraceae; <i>Matricaria chamomilla</i>	 Chamomile		Dwarson	200									200	210 (Aromatic species project site, Lalkuan)		410	Medicinal and Aromatic	Exotic
41.	Zingiberaceae; <i>Etlingera elatior</i>	 Torch ginger													10 (Aromatic species project site, Lalkuan)		10	Medicinal	Native to Indonesia.
42.	Costaceae; <i>Costus stenophyllus</i>	 Bamboo Ginger													3 (Aromatic species project site, Lalkuan)		3	Ornamental	Native to Costa Rica
43.	Zingiberaceae; <i>Hedychium flavescens</i>	 Yellow Ginger Lily													2 (Aromatic species project site, Lalkuan)		2	Medicinal and Aromatic	Native to the Himalayas, Sichuan, and northern Vietnam
44.	Amaryllidaceae ; <i>Allium moly</i>	 Yellow garlic													15 (Aromatic species project site, Lalkuan)		9	Medicinal and Ornamental	Found in Spain and Southern France
45.	Apiaceae; <i>Trachyspermum ammi</i>	 Ajwain													15 (Aromatic species project site, Lalkuan)		15	Medicinal	Native to Egypt Afghanistan, Pakistan, and India.

46.	Apiaceae; <i>Foeniculum vulgare</i> Mill.	 Fennel												2 Wild spices (Gaja)		2	Spice	Indigenous to the Mediterranean	
47.	Apiaceae; <i>Carum carvi</i> L.	 Kala jeera		Mand al	6	Patal hod	900	Dwars on	5					906	100(RET demonstration plot, Harkot, Munsyari) 30(Saritatal) spices		1041	Medicinal and Aromatic	Western Asia, Europe and N Africa.
48.	Plantaginaceae. <i>Thymus linearis Benth.</i>	 Van ajwain						Devvan	45			45		45		45	Aromatic and Medicinal	Widespread in Asia	
49.	Lamiaceae; <i>Origanum majorana</i>	 Murwa				Bhuji yaghat	48						48	10 (Aromatic species project site, Lalkuan)		58	Medicinal	Native to temperate Western and Southwestern Eurasia and the Mediterranean region.	
50.	Araceae; <i>Homalomena aromatica</i>	 Sugandhmantra												10 (Aromatic species project site, Lalkuan)		12	Perfumer y and cosmetic	Native to India.	
51.	Alliaceae; <i>Allium sativum</i>	 Lahsun												8 (Aromatic species project site, Lalkuan)		8	Medicinal	Native to Central Asia and China	
52.	Gesneriaceae; <i>Didymocarpus aromaticus</i>	 Pattharlong		Mand al	50	Kalika	50						100	85 Gaja (medician action plant)		185	Medicinal	India, Nepal, Bhutan,Myanma , Suthern China, Vietnam, Loas, Cambodia, Thailand,Sumatra	

53.	Apiaceae; <i>Coriandrum sativum</i>	 Dhaniya													100(Saritatal) spices		100	Spice	Native to Mediterranean region
54.	Zingiberaceae; <i>Kaempferia galangal</i>	 Sand ginger													5 (Aromatic species project site, Lalkuan)		10	Medicinal / Aromatic	Found in Indonesia, southern China, Taiwan, Camboa, and India
55.	Zingiberaceae; <i>Alpinia purpurata</i>	 Red Ginger													5 (Aromatic species project site, Lalkuan)		5	Medicinal / tic	Native to Malesia
56.	Lamiaceae; <i>Coleus zeylanicus</i>														10 (Aromatic Project Site)		10	Medicinal / Aromatic	Native to Malesia
57.	Apiaceae; <i>Ferula assafoetida</i>	 Hing													5(Saritatal) spices 20 (Public Health Garden); 10 (Aromatic Project Site)		35	Spice	Endemic to Western and Southwestern Iran.
58.	Zingiberaceae <i>Zingiber officinale</i>	 Adrak													6(Saritatal) spices		6	Spice	Originated from Maritime Southeasst Asia.
59.	Polygonaceae <i>Rheum australe</i>	 Dolu/Archu													2(Saritatal) spices		2	Spice	Native to Himalayas

60.	Magnoliaceae; <i>Magnolia sp.</i>														5 (Aromatic Project Site)		5	Aromatic	
61.	Zingiberaceae; <i>Amomum aculeatum</i>														5 (Aromatic Project Site)		5	Aromatic	
62.	Zingiberaceae; <i>Curcuma aeruginosa</i>														8 (Aromatic Project Site)		8	Medicinal / Aromatic	Native range is Bangladesh to W. Malesia.
63.	Zingiberaceae; <i>Curcuma longa</i>														7 (Aromatic Project Site)		7	Medicinal / Aromatic	Native to tropical South Asia
64.	Zingiberaceae; <i>Curcuma zedoaria</i>	 Karchur Haldi													15 (Aromatic Project Site)		15	Medicinal	Native to South Asia and Southeast Asia
65.	Alliaceae; <i>Allium Sativum</i> 'Lasuna'	 Jain garlic													10 (Aromatic Project Site)		10	Medicinal	-
66.	Araceae; <i>Spathiphyllum spp</i>	 Giant Peace Lily													2 (Aromatic Project Site)		2	Aromatic, indoor plant	-
67.	Apiaceae; <i>Selinum vaginatum</i> C.B. Clarke	 Bhootkeshi													250 (Rhizome bank Auli)	—	250	Aromatic	Himalayas

68.	<i>Liliaceae:</i> <i>Allium tuberosum</i>	 Jambu		Bhujiya ghat	99									99	45 (Aromatic Project Site)		144	Culinary	Native to China
69.	<i>Zingiberaceae;</i> <i>Alpinia zerumbet</i>	 Shell ginger													10 (Public Health Garden) ; 5 (Aromatic Garden, Lalkuan)		15	Medicinal , Perfumer y and Ornament al	Native to Malaysia, Indonesia, and Papua New Guinea.

- 1 Species is yet to be identified

II. Other Herbs

S.No.	Family; Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery														Total	Experiment Site	Preserv ation Plot	Grand Total	Use	Native Region
				Nursery Name																			
				1		2		3		4		5		6		7							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Ranunculaceae; <i>Aconitum hetrophyllum</i> Wall. ex Royle	 Atees	Endangered (IUCN); Threatened (State Biodiversity Board), Collection from wild closed for time being by Uttarakhand Government)	Mandal	152	Tangsa	30	Devvar	3157	Kalika	15	Patal t hod	50					247	150 (Mana vanpanchayat); 400 (RET demonstration plot, Harkot, Munsyari); 21 (RET Devan)		818	Medicinal	Endemic to Indian Himalayan Region
2.	Ranunculaceae; <i>Aconitum balfouri</i> Stapf	 Meetha	Vulnerable (IUCN); Threatened(State Biodiversity Board); Collection from wild closed for time being by Uttarakhand Government																50 (Mana vanpanchayat); 20 (RET demonstration plot, Harkot, Munsyari)		70	Medicinal	Broadly Endemic to Uttarakhand
3.	Podophyllaceae; <i>Podophyllum hexandrum</i> Royle	Ban kakri 	Endangered (Research paper)	Mandal	1	Devvan	100	Dwarson	10	Kalika	55							166	4 (Mana vanpanchayat); 20(RET demonstration plot, Harkot, Munsyari)		190	Medicinal	Indian Himalayan Region.
4.	Geraniaceae; <i>Geranium wallichiana</i> D. Don ex Sweet			Mandal	20	Patal t hod	50											20			70	Medicinal	Near Endemic

5.	Liliaceae; <i>Lilium polyphyllum</i> Don	 White Himalayan Lily/ Kshira Kakoli	Critically endangered (IUCN); Collection absolutely Prohibited by Uttarakhand Goverment	Mandal	1														1	Medicinal	Near Endemic	
6.	Rosaceae; <i>Potentilla fulgens</i> Wall.ex Hook	 Bajradanti		Mandal	200	Kalika	104	Dwarson	150	Devvan	250	Patalthod	3700					4404	300 (Mana vanpanchayat); 73 (R.E.T Plot, Devvan); 2 (Bhujiyaghat Aromatic plants)	4479	Medicinal	Nepal ,Pakistan , China
7.	Saxifragaceae; <i>Bergenia ciliata</i> (How.) Sterb.	 Pashanbedh	Vulnerable International Journal of Biodiversity Science and Management; Limited collection allowed by Uttarakhand Goverment	Mandal	200	Kalsi	150	Patalthod	1410	Devvan	05	Kalika	350	Dwarson	50			2165	100 (Mana vanpanchayat) 10 (Public Health Garden	2275	Medicinal	Near endemic
8.	Saxifragaceae; <i>Bergenia stracheyi</i> (Hook.f. & Thoms.) Engl	 Pashanbedh		Mandal	20	Devvan	25										20		45	Medicinal	Near Endemic	
9.	Scrophulariaceae; <i>Picrorhiza kurrooa</i> Royle ex Benth.	 Kutaki	Endangered IUCN CITES Appendix II	Mandal	3000	Patalthod	3450	Devvan	1300	Dwarson	5						7750	250 (Mana vanpanchayat); 50 (RET demonstration plot, 65 (R.E.T Devvan)	8015	Medicinal	East Asia; Himalayas	

10.	Polygonaceae; <i>Rheum moorcroftianum</i> Royle	 Dolu	Vulnerable (ENVIS) ;Collection from wild closed for the time being by Uttarakhand Government	Mandal	86	Patalthod	24											110	80 (Mana vanpanchayat); 50(RET demonstration plot, Harkot, Munsyari)		240	Medicinal	Eastern Europe; temperate regions of Asia.
11.	Zingiberaceae; <i>Roscoeapurplea</i> Sm,	 Kakoli		Mandal	30	Patalthod	400	Devvan	05									435	50(RET demonstration plot, Harkot, Munsyari); 4(Gaja) Wild flowers		489	Medicinal	Indian Himlayan Region and Nepal.
12.	Iridaceae; <i>Iris kemaonensis</i> Wall. ex D. Don																		Multiple (Mana vanpanchayat)			Medicinal	China, Bhutan and India.
13.	Liliaceae; <i>Paris polyphylla</i> Sm.	 Ban Satuwa	Endangeard (The International Journal of Biodiversity Science and Management); Collection from wild closed for the time being by Uttarakhand Government	Mandal	65	Kalika	10											75	Medicinal 3 Gaja (medician action plant)		78	Medicinal	China, Taiwan and Indian subcontinent.
14.	Liliaceae; <i>Polygonatum cirrhifolium</i> (Wall.) Royle	 Maha Meda	Collection from wild closed for the time being by the Uttarakhand Government	Mandal	20	Tangsa	40	Patalthod	700	Dwarson	20							780	50(RET demonstration plot, Harkot, Munsyari)		810	Medicinal	Indian Himalayan Region

15.	Liliaceae; <i>Polygonatum verticillatum</i> (L.)All.	 Meda	Collection closed for the time being by Uttarakhand Government	Mandal	60	Tangsa	45	Patalhod	700	Dwarson	20	Sarिता	5					830	50 (RET demonstration plot, Harkot, Munsyari)		608	Medicinal	Indian Himalayan Region
16.	Liliaceae; <i>Trillium govanianum</i> Wall. ex Royle	 Nagchatri	Endangered IUCN	Mandal	50	Kalika		10										60			60	Medicinal	Endemic to Indian Himalayan Region
17.	Asteraceae; <i>Inula racemosa</i> Hook.f.	 Pushkermool		Tagsa	12	Dwarson	2											14			14	Medicinal	Western Himalayas of Afghanistan, Kashmir, Nepal and Pakistan
18.	Asteraceae; <i>Cichorium intybus</i> L.	 Kasani	Least concern (IUCN)	Tangsa	130	Dwarson	439	Kalika	270	Patalhod	250	Haldwani	150	Lalkuan	10	Kalika	10	1265	300 (Medicinal conservatory, Haldwani); 500 (Kaasni Gene bank, Haldwani); 30 (Public Health Garden)		2095	Medicinal	Africa, Asia and Europe
19.	Amaranthaceae; <i>Achyranthus aspera</i> L.	 Apamarg		Tangsa	35	Gaja	583											573	1 (Nav GrahaVaatika) 10 (Public Health Garden)		584	Medicinal	Indigenous to South East Asia and Africa
20.	Solaniaceae; <i>Withania somnifera</i> (L.) Dunal	 Aswgandha		Kalika	215	Tangsa	300	Lalkuan	11	Dwarson	300	Shyamapur	400	Kalsi	400	Gaja	938	2564	50 (Medicinal conservatory, Haldwani) 150 Gaja (medicinal action plant); 30 (Public Health Garden)		2794	Medicinal	Drier parts of India

21.	Euphorbiaceae; <i>Phyllanthus niruri</i> L.			Kalika	400	Tangsa	35	Patalthod	50								485	54 Gaja (medician action plant); 45 (Public Health Garden)		584	Medicinal	Tropical & Subtropical America
		Bhui amla																				
22.	Asparagaceae; <i>Urginia indica</i> (Roxb.)Benth			Mandal	30	Dwarson	100	Kalika	20								150	100 (RET plot, Shyampur); 2(Gaja) wild spices 10 (Public Health Garden		412	Medicinal	Indian subcontinent, India, Nepal, Indo China and Myanmar.
		Ban Pyaj																				
23.	Asteraceae; <i>Sassurea costus</i> (Falc.)Lipsch.		Critically endangered (IUCN); Endangered; Endangered (Indian Biodiversity Portal) included in CITES Appendix I	Mandal	15	Tangsa	350	Patalthod	650	Devvan	05	Kalika	853	Dwarson	15		1304	50 (Manavanpanchayat); 50 RET demonstration plot, Harkot, Munsyari); 2 Bhujiyaghat(Aromatic plants)		1406	Medicinal	Endemic to Himalaya (IHR)
		Koot/Kushta																				
24.	Gentianaceae; <i>Gentiana kurroo</i> Royle		Critically endangered (IUCN), Threatened (Sate Biodiversity Board) ; Collection from wild closed for time being by Uttarakhand Government	Devvan	957	Tangsa	14	Patalthod	15	Mandal	15	Kalika	10	Dwarson	20		1031	23 (R.E.T Devvan); 15 (Manavanpanchayat); 15 (RET plot Munsyari)		1084	Medicinal	Native to Indian subcontinent,
		Trayman																				
25.	Asparagaceae; <i>Chlorophytum borvivilianum</i>		Critically endangered (IUCN)	Kalika	875	Dwarson	500	Gaja	198								1573	45(Aromatic species project site, Lalkuan)		1618	Medicinal	Native of South Africa
		Safed musli																				

26.	Nyctaginaceae; <i>Boerhavia diffusa</i> L. Nom. Cons.	 Punarnva		Kalsi	40												40	80 Medicinal conservatory, Haldwani) 10 (Public Health Garden)		130	Medicinal	India, South American and African continents.
27.	Plantaginaceae; <i>Bacopa monnieri</i> (L.)Pennell	 Brahmi	Least concern (IUCN)	Kalsi	420	Shyampur	50	Gaja	1568								2038	15000 (Medicinal conservatory, Haldwani) 10 (Public Health Garden)		17048	Medicinal	India, Nepal, China, Taiwan and Vietnam.
28.	Asteraceae; <i>Eclepta alba</i> (L.) Hassk.	 Bhrangraaj	Least concern (IUCN)	Kalsi	200												200	10 (Public Health Garden)		210	Medicinal	India, Nepal, China, Thailand, and Brazil.
29.	Plantaginaceae; <i>Plantago major</i> L.	 Isabgol	Least concern (IUCN)	Kalsi	80	Kalika	700	Gaja	598								1378	200 (Medicinal conservatory, Haldwani) 300 Gaja (medician action plant) 20 (Public Health Garden)		1898	Medicinal	India, Afghanistan, Australia, Canada, China
30.	Zingiberaceae; <i>Curcuma caesia</i> Roxb.	 Kali haldi		Kalsi	55	Devvan											55	50 (RET plot, Shyampur); 50Bhujiyaghat(Aromatic plants); 2 (Aromatic species site, Lalkuan)		157	Medicinal	Northeast India
31.	Lamiaceae; <i>Plectranthus rotundifolius</i> Spreng.	 Chinese potato		Kalsi	140	Devvan											140			140	Medicinal	Tropical Africa and Asia,India , Sri Lanka

32.	Asparagaceae; <i>Chlorophytum tuberosum</i> (Roxb.) Bake	 Hari musli	Least concern (IUCN)	Kalsi	540												540			540	Medicinal	India, Nepal,, Sri lanka and Uganda
33.	Liliaceae; <i>Cardiocrinm giganteum</i> (Wall.) Makino	 Himalayan lily		Mandal	15												15	2(RET demonstration plot, Harkot, Munsyari)		2	Ornamental	India, China, Nepal, Pakistan.
34.	Plantaginaceae; <i>Digitalis purpurea</i> L.	 Tiluspi		Patalthod	170	Dwarson	5	Kalika	300	Tangsa	40						510	50(RET demonstration plot, Harkot, Munsyari)		560	Medicinal	Europe, parts of North America.
35.	Asteraceae; <i>Echinacea purpurea</i> L.	 Echinacea																50(Medicinal conservatory) 15 (Public Health Garden)		65	Medicinal	North America
36.	Gentianaceae; <i>Swertia chirayita</i> (Roxb. ex Fleming) Karsten	 Chirayta	Restricted from collection in wild (State Medicinal Plant Board, Uttarakhand) ; Collection from wild closed for time being by Uttarakhand Government	Patalthod	2800	Mandal	60										2860	50(RET demonstration plot, Harkot, Munsyari); 4Bhujiyaghat (Aromatic plants) 10 (Public Health Garden		2924	Medicinal	India, Nepal and Bhutan.
37.	Crassulaceae; <i>Bryophyllum pinnatum</i> (Lam.) Oken	 Patharchatta		Shyampur	200												200	50 (RET plot, Shyampur) 10 (Public Health Garden)		260	Medicinal	Native to Madagascar.
38.	Costaceae; <i>Costus pictus</i> D. Don	 Insulin plant																20 (RET plot, Shyampur)		20	Medicinal	Native to Mexico .

39.	Colchicaceae; <i>Gloriosa superba</i> L.	 Kalihari	Least concern (IUCN); Collection from wild closed for the time being by Uttarakhand Government.	Kalika	10	Patalhod	3										20	20 (RET plot, Shyampur); 20(Medicinal conservatory, Haldwani) 15 (Public Health Garden)		48	Medicinal	Indian Sub continent
40.	Lamiaceae; <i>Eremostachys superba</i> Royle ex Benth.	 Golden Himalayan Spike/ Moonch	Threatened (State Biodiversity Board)	Mandal	6													8 (RET plot, Shyampur); 2 (Medicinal conservatory, Haldwani)		16	Medicinal	Near Endemic to Shiwaliks or NW India.
41.	Zygophyllaceae; <i>Tribulus terrestris</i> L.	 Gokharu																1100(Dashmool species experimental plot, Lalkuan); 50 (Public Health Garden)		1150 (approx.)	Medicinal	Native of the Mediterranean region
42.	Asteraceae; <i>Arctium lappa</i> L.	 Beggar's buttons		Devvan	663												663	40 (R.E.T Devvan)		703	Medicinal	Native to northern Europe
43.	Acanthaceae; <i>Andrographis paniculata</i> (Burm.f.)Nees	 Kalmegh		Kalsi	80												80	36 (Medicinal conservatory, Haldwani) 10 (Public Health Garden)		126	Medicinal	India and Sri Lanka.
44.	Asphodelaceae; <i>Aloe barbadensis</i> Mill.	 Ghratkumari		Kalsi	50	Gaja	220	Bhuji yaghat	50			Kalika	10				330	10 (Public Health Garden)		340	Medicinal	Arabian Peninsula

45.	Solanaceae; <i>Solanum nigrum</i> <i>L.</i>			Shyam pur	20												20	2 (Wild berries and fruits Gaja) 10 (Public Health Garden)		32	Medicin al	Native to Eurasia and introdu ced in the Americ as, Austral asia, and South Africa
46.	Solanaceae; <i>Solanum</i> <i>xanthocarpum</i> Schrاد.& H. Wendl.	 Kantkari																50 (Medicinal conservatory, Haldwani); 800 approx.(Dashmo ol species experimental plot,Lalkuan); 20 (Public Health Garden)		870	Medicin al	Central Himala ya
47.	Urticaceae; <i>Urtica dioca</i>	 Bicchhu Ghas		Dwarson	108	Devv an	15										123	20 Gaja (Edible plants)		143	Medicin al	Native to Europe, Asia, norther n Africa, and Americ a
48.	Europhobeaceae ; <i>Euphorbia hirta</i>	 Dudhi Ghas		Dwarson	60	Patal hod	10 0										60			160	Medicin al	Native to Americ a
49.	Fabaceae; <i>Trifolium</i> <i>alexandrinum</i>	 Barsim Ghas		Dwarson	500												500				Fodder	` Native to western Asia.

50.	Asparagaceae; <i>Ophiopogon japonicas</i> (L.f.) Ker Gawl.	 Kali ghas		Dwarson	70												5 (Grass Demonstration Plot, Shyampur)		75	Medicinal	China, Japan, India and Vietnam.
51.	Ranunculaceae; <i>Aconitum leave</i> Royle			Mandal	10												10		10	Medicinal	India , Pakistan and Nepal
52.	Violaceae; <i>Viola pilosa</i> L.	 Vanpsa		Mandal	50	Kalika	25										75	10 (Public Health Garden)	85	Medicinal	Nepal, China and Pakistan
53.	Rubiaceae; <i>Rubia cordifolia</i> L.	 Manjith		Mandal	20	Patalthod	100	Devvan	04	Gaja	22	Sariat aal	155				301	100 (Gaja medicinal beds) 10 (Public Health Garden)	411	Medicinal	Widespread in northern hemisphere
54.	Ephedraceae; <i>Ephedra gerardiana</i> Wall. ex Stapf	 Somlata	Critically endangered Research Paper	Mandal	30	Gaja	2	Kalika	200								232		232	Medicinal	Tajikistan, Nepal, China and India
55.	Lamiaceae; <i>Ajuga parviflora</i> Benth.	 Ratpatiya		Kalika	50	Gaja	302	Gaja	701								1053	10 (Public Health Garden)	1063	Medicinal	Near Endemic
56.	Liliaceae <i>Clintonia udensis</i>			Patalthod	30												50		50	Edible	East Asia – Himalayas to S.W. China

57.	Genetianaceae <i>Gentiana argentea</i>			Patlthod	50												50			50	Berverages	Himalayas
58.	Asteraceae; <i>Taraxacum officinale</i>	 Dandelion		Patalthod	50	Devvan	03										53			53	Medicinal	Nepal, Chiana, India
59.	Lamiaceae <i>Ajuga brachystemon</i>	 Ratpati		Patalthod	50	Mandal	20										70			70	Medicinal	Endemic to Himalaya
60.	Violaceae <i>Viola spp.</i>	 Banfsa		Patalthod	100												100			100	Medicinal	Asia and Europe
61.	Zingiberaceae; <i>Roscoeia alpina</i>	 Musli		Patalthod	100	Mandal	30										130	2(Wild flowers Gaja)		132	Medicinal	Native to the Himalaya
62.	Genetianaceae; <i>Gentiana membranulifera</i>	 Clustered Summer Gentian		Patalthod	50												50			50	Beverages	E. Afganistan to Himalaya
63.	Scrophulariaceae; <i>Verbascum thaspus</i>	 Aekalveer		Patalthod	30	Devvan	02										32			32	Medicinal	Europe, Africa and Asia.

64.	Urticaceae; <i>Pouzolzia zyelanica</i>	 Chiphaljadi	Patalthod	100													100			100	Edible and Medicinal	E. Asia to SouthEast Asia
65.	Polygonaceae <i>Oxyria digyna</i>	 Chaktali	Patalthod	10													10			10	Medicinal	Native to Arctic region ; Mountainous part of Northern Hemisphere
66.	Rosaceae; <i>Potentilla polyphylla</i>	 Many leaf Cinquefoil	Patalthod	100													100			100	Medicinal	Himalayas from Uttarakhand to Bhutan
67.	Asphodelaceae; <i>Aloe nyeriensis</i>		Shyam pur	05													05			05	Medicinal	East tropical Africa central Kenya.
68.	Begoniaceae; <i>Begonia dioica</i>		Devvan	05													05			05	Ornamental	Himalayas, from Pakistan to Sikkim
69.	Hypericaceae; <i>Hypericum elodeoides</i>		Devvan	05													05			05	Medicinal	Kashmir to Southwest China and Burma.
70.	Urticaceae; <i>Girardinia diversifolia</i>	 Himalayan nettle	Devvan	05														10 (Public Health Garden)		15	Medicinal	Uttarakhand, Himachal Pradesh and Jammu & Kashmir

																						and also in vast part of China.
71.	Boraginaceae; <i>Cynoglossum lanceolatum</i>	 Lanceleaf forget me not		Devvan	03															03	Medicin al	Africa, Western. Asia and Himalay as.
72.	Ranunculaceae; <i>Thalictrum foliolosum</i>	 Mamiraa		Devvan	03	Mand al	5													08	Medicin al	Himalay an range across India, Nepal,bh utan, SE Tibet and Burma .
73.	Lamiaceae ; <i>Ajuga bracteosa</i>	 Nilkanthi		Devvan	30															30	Medicin al	Kashmi r to Nepal
74.	Caesalpinioidea e; <i>Cassia tora</i>	 Panwar		Haldwa ni	10	Lalku an	6										16	10 (Public Health Garden		26	Medicin al	Native to Central America
75.	Araceae; <i>Aglaonema commutatum</i>	 Chinese Evergreen		Haldwa ni	10															10	Orname ntal	Native to Philippi nes
76.	Asparagaceae; <i>Aspidistro elatior</i>	 Cast iron plant		Haldwa ni	10															10	Orname ntal	Native to Japan

77.	Cleomaceae; <i>Cleome viscosa</i> Linn.	 Asian spider flower																2(Gaja) wild spices		2	Spice	Native to Indian Ocean Islans
78.	Lamiaceae; <i>Perilla frutescens</i> (L.)	 Perilla																2(Gaja) wild spices		2	Edible	Native to India
79.	Malvaceae; <i>Pavonia odorata</i> Willd.			Sariyat aal	45												45	2(Gaja) nursery beds		47	Medicin al	Native to Asia
80.	Ranunculaceae; <i>Aquilegia pubiflora</i> Wall.			Mandal	4												4			4	Medicin al	Pakista n , Nepal and India
81.	Dioscoreaceae; <i>Dioscorea deltoidea</i> Wall. ex Griseb.	 Endangered Research Paper JBES Vol.9 No.6,p.13 24,2016		Tangsa	9	Devan	4										13			13	Medicin al and Edible	Nepal, China , Bhutan
82.	Zingiberaceae; <i>Hedychium coronarium</i> J. Koenig					Tangsa	5	Shya mpur	80								85	10 (Aromatic species project site, Lalkuan) 10 (Public Health Garden		105	Medicin al	India, Nepal, Bhutan
83.	Zingiberaceae; <i>Costus pictus</i> D.Don	 Insulin buti				Tangsa	5										5	10 (Public Health Garden)		20	Medicin al	south and Central Americ a

84.	Asteraceae: <i>Aisnliaea aptera</i>	 Kadu				Kalsi	40	Devv an	150								190			190	Medicin al	This genus is mainly <i>distribu ted</i> in southea stern Asia
85.	Araceae: <i>Apathiphyllum wallisii</i>	 Peace lily		Shyam pur	05												05			05		
86.	Asparagaceae: <i>Chlorophytum comosum</i>	 Spider plant		Shyam pur	05												05			05		
87.	Acanthaceae: <i>Strobilanthes cusia</i>	 Assam indigo		Shyam pur	05												05			05		
88.	Hypoxidaceae; <i>Curculigo orchiodes</i>	 Kali musli																20 Gaja (medician action plant) 10 (Public Health Garden		30	Medicin al	Native to Nepal, China, Japan, and the Indian suconti nenet,P apuasias
89.	Amaranthaceae; <i>Chenopodium album</i>	 Bathuwa saag																40 Gaja (Edible plants)		40	Food crop	Native to Europe and Eastern Asia.
90.	Amaranthaceae; <i>Amaranthus hypochodriacus</i>	 Chaulai																20 Gaja (Edible plants)		20	Medicin al	Souther n North Americ a.

91.	Araceae; <i>Colacaria esculenta</i>	 Pinaloo																20 Gaja (Edible plants)		20	Edible leaf, root, corms	Native to Eastern Asia.
92.	Fabaceae; <i>Glycyrrhiza glabra</i>	 Mulethi																40 (Public Health Garden)		40	Medicinal	Native to Eurasia
93.	Costaceae; <i>Cheilocostus speciosus</i> (Koen ex. Retz.) Sm.	 Kevkand		Lalkuan	5	Tangsa	10										15	25 (Public Health Garden)		40	Medicinal	Native to tropical and subtropical regions of Asia and Afric
94.	Amaranthaceae; <i>Aerva lanata</i>	 Gorakhgaja																10 (Public Health Garden)		10	Medicinal	Native to Asia and Africa
95.	Lamiaceae; <i>Leucas cephalotes</i>	 Dronpushpi																10 (Public Health Garden)		10	Medicinal	Asia from China to the Indian subcontinent.
96.	Asteraceae; <i>Sphaeranthus indicus</i>	 Gorakh Mundi																10 (Public Health Garden)		10	Medicinal	Northern Australia throughout Indomalaya

97.	Convolvulaceae; <i>Convolvulus prostratus</i>	 Sankhpushpi		Dwarson	6												6			6	Medicinal	India and Burma
98.	Lamiaceae; <i>Salvia aegyptiaca</i>	 Tutmalanga																10 (Public Health Garden)		10	Medicinal	Native range is Macaronesia to NW. India
99.	Asteraceae; <i>Cirsium arvense</i>	 Creeping Thistle																10 (Public Health Garden)		10	Medicinal	Native throughout Europe, western Asia and northern Africa
100	Ranunculaceae; <i>Aconitum ferox</i> Wall. ex Ser.																-	5 (Manavanpanchayat)	—	5	Medicinal	Endemic in Indian Himalayan Region
101	Asphodelaceae; <i>Kniphofia uvaria</i>	 Torch lily	----	Patalthod	20												20			20	Ornamental	Native, South Africa
102	Polygonaceae; <i>Homalocladium platycladum</i>	 Tapeworm Plant		Gaja	20												20			20	Ornamental	Native to the Solomon Islands.

103	Plantaginaceae; <i>Plantago erosa</i> Wall	 Ishabgol				Tangsa	200											200				Medicinal	Indian Subcontinent
104	Rosaceae; <i>Rubus nepalensis</i> (Hook.f.)Kun.	 Wild stroberry				Tangsa	30											30				Edible	Indian Subcontinent
105	Amaryllidaceae; <i>Crinum latifolium</i>	 Sudarshan																	8 (Public Health Garden)		8	Medicinal	Native South east Asia
106	Dioscoreaceae; <i>Trichopus zeylanicus</i>	 pacha/Jeevani	Arogya																10 (Public Health Garden)		10	Medicinal	Endemic to Agastya r hills of Kerala
107	Asteraceae; <i>Glossocardia bosvallia</i>	 Patthar-suva																	10 (Public Health Garden)		10	Medicinal	Native to Asia and Australia.
108	Asteraceae; <i>Artemisia vulgaris</i>	 Mugwort																	10 (Public Health Garden)		10	Medicinal	native to Europe, Asia, and northern Africa.

- 1 Species is yet to be identified

III. Shrub Species

Shrubs Species are conserved across all the Research Ranges with Tulsi species being specifically conserved at Haldwani and Dehradun Range.

I. Tulsi

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery										Experiment Site	Preservation Plot	Grand Total	Use	Native Region			
				Nursery Name															Total		
				1		2		3		4		5									
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant								
1.	Lamiaceae; <i>Ocimum gratisimum</i> Linn.	 Launga Tulsi		Patalthod	1880									1880	36 (Tulsi experimental block Lalkuan); 10(Tulsi Vatika Shyampur); 10 (Tulsi vatika Haldwani); 15 (Bhujiyaghat (Aromatic plants))		1951	Medicinal	Africa, E. Asia India, Sri Lanka, Nepal and Vietnam.		
2	Lamiaceae; <i>Origanum vulgare</i>	 Badri Tulsi													40 (Tulsi block Lalkuan); 20 (Public Health Garden)		60	Medicinal & religious	Native to the Mediterranean region		
3	Lamiaceae; <i>Ocimum tenuiflorum</i> Linn.	 Tulsi		Kalsi	10	Dwarson	50							60	30 (Tulsi experimental block); 10 (Tulsi Vatika Shyampur); 20 (Tulsivatika Haldwani); 44 (Tulsi block Lalkuan); 10 (Tulsi Vatika Shyampur); 12 (Bhujiyaghat (Aromatic plants)); 20 (Public Health Garden)		200	Medicinal and religious	Native (Indian subcontinent).		
3A	Lamiaceae; <i>Ocimum tenuiflorum</i>	 Shvama Tulsi													30 (Tulsi experimental block Lalkuan); 10 (Tulsi Vatika Shyampur); 21 (Tulsi vatika Haldwani)		61	Medicinal	Indian subcontinent		

3B	Lamiaceae; <i>Ocimum tenuiflorum var. Angana</i>	 Angana Tulsi												2 (Tulsi experimental block)		2	Medicinal	Developed by SIR CIMAP, Lucknow
3C	Lamiaceae; <i>Ocimum tenuiflorum var. Kanchan</i>	 Kanchan Tulsi												7(Tulsi experimental block)		7	Medicinal	Developed by CSIR CIMAP, Lucknow
3D	Lamiaceae; <i>Ocimum tenuiflorum var. Amrita</i>	 Amrita tulsi												10 (TulsiVatikaShya mpur)		10	Medicinal	
4	Lamiaceae; <i>Ocimum kilimandscha ricum Gurke</i>	 Kapur Tulsi		Dwars on	10									10 (Tulsi block Lalkuan); 10 (TulsiVatika Shyampur); 15 (Bhujiyaghat (Aromatic plants)		45	Medicinal and Religious	Native to Kenya, Tanzania, Uganda, Sudan, and Ethiopia
5	Lamiaceae; <i>Ocimum basilicum L.inn.</i>	 Babui tulsi		Kalsi	990	Gaja	62						1052	36 (Tulsi block Lalkuan); 10 (Tulsi Vatika Shyampur); 11 (Tulsi vatika Haldwani); 15 Bhujiyaghat (Aromatic plants)		1124	Medicinal and Religious	India, Pakistan and Thailand.
5A	Lamiaceae; <i>Ocimum basilicum</i>	 Sabja Tulsi		Dwars on	5									34 (Tulsi experimental block Lalkuan); 10 (TulsiVatika Shyampur); 5 (Tulsivatika Haldwani)		54	Medicinal and Religious	India, Pakistan and Thailand
5B	Lamiaceae; <i>Ocimum basilicum var. Saumya</i>	 Saumya Tulsi												32 (Tulsi experimental block lalkuan); 10 (Tulsi Vatika Shyampur);		42	Medicinal	Developed by CSIR CIMAP, Lucknow

5C	Lamiaceae; <i>Ocimum basilicum</i> 'Genovese'													14 (Tulsi experimental block Lalkuan); 10 (Tulsi Vatika Shyampur)		24	Medicinal	Native of Africa and Asia
5D	Lamiaceae; <i>Ocimum basilicum</i>	 Thai tulsi		Lalkuan	5								5	10 (Tulsi Vatika Shyampur)		15	Medicinal	India, Pakistan and Thailand
6	Lamiaceae; <i>Ocimum americanum</i> Linn.	 Kali Tulsi		Kalsi	10								10	40 (Tulsi block Lalkuan); 15 (Tulsi Vatika Shyampur); 12 Bhujiyaghat (Aromatic plants)		67	Medicinal and Religious	Native to Africa, the Indian Subcontinent, China, and Southeast Asia
7	Lamiaceae; <i>Salvia officinalis</i> Linn.													30 (Tulsi block Lalkuan); 10 (Tulsi Vatika Shyampur)		40	Medicinal and Religious	Native to the Mediterranean region
8	Lamiaceae; <i>Ocimum X citriodorum</i> Vis.	 Nimbu Tulsi												30 (Tulsi block Lalkuan); 10 (Tulsi Vatika Shyampur); 16 (Tulsi vatika Haldwani)		56	Medicinal	Africa and Asia
9	Asteraceae; <i>Stevia rebaudiana</i>	 Mithi tulsi		Kalsi	10	Kalika	10						20	10 (Tulsi Vatika Shyampur); 5 (Tulsi vatika Haldwani) 35 (Tulsi block Lalkuan); 20 (Public Health Garden)		70	Medicinal	Native to Paraguay
10	Lamiaceae; <i>Ocimum viride</i> Willd.	 Ajwain tulsi												10 (Tulsi Vatika Shyampur); 20 (Tulsi block Lalkuan)		30	Medicinal	Native to Africa

11	Lamiaceae; <i>Ocimum</i> <i>vekiamdeem</i>	 Deepam tulsi												10 (Tulsi Vatika Shyampur); 30(Tulsi block Lalkuan)		40	Medicinal	
12	Lamiaceae; <i>Ocimum</i> <i>basilicum</i> L.													35 (Tulsi block Lalkuan)		40	Medicinal	Native of Africa and Asia
13	Lamiaceae; <i>Ocimum</i> <i>basilicum</i>	 Italian Basil												20 (Tulsi block Lalkuan)		25	Medicinal	Native of Africa and Asia
14	Lamiaceae; <i>Ocimum</i> <i>sanctum</i>	 Amrita Tulsi												15 (Tulsi block Lalkuan)		15	Medicinal	Native to the Indian subcontinent
15	Lamiaceae; <i>Ocimum</i> <i>kilimandscharicum</i> × <i>basilicum</i> 'Dark Opal'	 African blue basil		Lalkuan	5									20 (Tulsi block Lalkuan)		25	Medicinal	-
16	Lamiaceae; <i>Ocimum</i> <i>basilicum</i> var. <i>thyrsiflora</i>	 Thai Basil		Lalkuan	2									25 (Tulsi block Lalkuan)		27	Medicinal	- -
17	Lamiaceae; <i>Ocimum</i> <i>basilicum</i> 'Purpurascens'	 Red sweet basil												20 (Tulsi block Lalkuan)		20	Medicinal	- -

18	Lamiaceae; <i>Ocimum basilicum</i> <i>spp</i> <i>‘Damro’</i>	 Damro Tulsi													15 (Tulsi block Lalkuan)		15	Medicinal	- -
19	Lamiaceae; <i>Ocimum basi</i> <i>licum</i> <i>‘Cinnamon’</i>	 Vietnamese basil													15 (Tulsi block Lalkuan)		15	Medicinal	- -

II. Other Shrub

S.No.	Family; Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery															Experiment Site	Pres erva tion Plot	Grand Total	Use	Native Region
				Nursery Name														Total					
				1		2		3		4		5		6		7							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nurser y Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery Name	No. Of Plant	Nurse ry Name	No. Of Plan t						
1.	Fabaceae; <i>Indigofera heterantha</i> Wall. ex Brandis	 Sakina		Mandal	60													60			60	Dye	Northwest ern Himalayas of Tibet.
2.	Rosaceae; <i>Cotoneaster bacillaris</i> Wall. ex Lind.	 Ruis		Mandal	300	Tangsa	500	Shrikot	500	Dwa rson	276	Saritat aal	958					2534	1340 (Trishula comp.1 K.W.L.D); 18 (Miyawaki Experiment, Gaja) 22 (R.E.T Devvan); 1(Arboretum, Haldwani)		3916	Fodd erand Agric ultura l imple ments	Near endemic Uttarakha nd,Wester n Himalaya n region
3.	Rosaceae; <i>Pyracantha crenulata</i> Wall. ex Lind.	 Ghigaru		Mandal	895	Tangsa	6581	Shrikot	600	Kali ka	1225	Dwars on	200	Devva n	205	Gaja	936	1064 2	2Gaja(wild berries and fruits); 2(Arboretum, Haldwani) 5 (Public Health Garden)		10651	Edible	Temperate Himalayas
4.	Rosaceae; <i>Rosa macrophylaa</i> Lind.	 Ban Gulab		Tangsa	1250	Shrikot	4194											5444			5444	Oil and Orna mental	Western Himalayas

5.	Rosaceae; <i>Rubus ellipticus</i> Sm.	 Hisalu		Mandal	1181	Tangsa	165	Kalika	630	Dwa rson	324							2300	541 (Miyawaki Experiment); 2Gaja(wild berries and fruits); 2(Arboretum, Haldwani 20 (Public Health Garden)		2865	Edibl e, Medi cinal and to contr ol soil erosio n	China, Nepal, Indian Subcontin ent and Philippine s.
6.	Urticaceae; <i>Debregeasia salicifolia</i> (D. Don) Rendle	 Tushshaare		Mandal		Tangsa	1200											1200	100 (RET plot, Shyampur)		1300	Fodd er	NE India; Tropical Africa; Central Himalaya.
7.	Lauraceae; <i>Lindera pulcherrima</i> (Nees) Benth. ex Hook.f.	 Cher		Mandal	50	Devvan	400											450	35 (R.E.T Devvan)		485	Fodd er	Eastern Asia
8.	Elaeagnaceae; <i>Hippophae salicifolia</i> (D. Don) Serv.	 Amesh	Least concern (IUCN)	Mandal	260	Devvan	217	Pataltho d	100	Kalik a	50							617	50 (R.E.T Plot, Devvan); 60 (Miyawaki Experiment) 5 (Public Healthn Garden)		732	Medi cinal	Indian Himalaya n region
9.	Lythraceae; <i>Woodfordia fruticosa</i> (L.) Kurz	 Dhola	Least concern (IUCN)	Mandal	400	Shrikot	140	Kalika	150	Dwa rson	95	Gaja	95	Lalkua n	20			900	200 (Riparian plot) 2 (Arboretum, Haldwani); 61 (Color& tanning experimental plot, Lalkuan; 470 lantana plot kalsi; 1(Arboretum Gaja); 294 (Miyawaki Exp.)		1928	Fodd e, Tanni n and Dye.	India

10.	Berberidaceae; <i>Berberis aristata</i> DC.	 Kilmora	Least concern. (IUCN)	Mandal	30	Shrikot	500	Kalika	1206	Dwarson	1550	Kalsi	873	Devvan	400	Patalthod	25	4584	892 plants in Miyawaki Experiment ; 70(RET demonstration plot, Harkot, Munsyari); 2 Gaja(wild berries and fruits); 2(Arboretum, Haldwani);100 Lantana Plot Kalsi 20 (Public Health Garden)		5670	Medicinal	Near endemic
11.	Rutaceae; <i>Zanthoxylum armatum</i> DC.	 Timaru	Collection from wild closed for the time being by Uttarakhand goverment	Mandal	800	Tangsa	1350	Dwarson	355	Patalthod	180	Kalika	597					3282	903(Trishula comp.1 K.W.L.D): 318 Miyawaki Experiment, Kalika); 1(Arboretum, Haldwani) 2(Arboretum Gaja); 10 (Public Health Garden); 5 (Aromatic Project Site)		4156	Spice and Medicinal	Nepal, China, Japan and Pakistan
12.	Rutaceae; <i>Skimmia laureola</i> (DC) Zucc	 Kedarpati		Mandal	2500	Devvan	2000	Saritalaal	83									4583	5256 (R.E.T Devvan Kanaser range); 2 (Arboretum Gaja)		9841	Incense sticks	Near endemic
13.	Oleaceae; <i>Fraxinus xanthoxyloides</i> (G. Don) DC.		Least Concern (IUCN)	Mandal	900	Tangsa	230											1130	60 (Tangsa nursery)		1190	Walking sticks	Afghanistan, China and Pakistan.

14.	Lamiaceae; <i>Rosemarinus officinalis</i> L.	 Rosemary		Kalika	89	Dwarson	372	Gaja	885	Bhuj iyag hat	120							1466	5Bhujiyaghat(Aromatic plants); 30(Aromatic species project site, Lalkuan)		1501	Orna menta l and Flavo uring agent	Native to the Mediterra nean region.
15.	Elaeagnaceae; <i>Elaeagnus umbellata</i> Thunb.	 Ginroye		Kalika	676	Dwarson	160	Gaja	165	Sari ataal	215							1216	339 (Miyawaki Experiment); 1(Arboretum Gaja); 15 (Public Health Garden)		1571	Medi cinal	Indian Himalaya n Region
16.	Coriariaceae; <i>Coriaria nepalensis</i> Wall.	 Makol		Kalika	69	Patalthod	50	Gaja	400	Sari ataal	100							619	424 (Miyawaki Experiment); 1(Arboretum, Haldwani) 1(Arboretum Gaja)		1045	Soil binde r	Indian Himalaya n Region
17.	Primulaceae; <i>Myrsine africana</i> L.	 Rikhdalmi		Dwarson	24	Gaja, Wild flower s	2											791	765(R.E.T Devvan + kanaser range);78 (Miyawaki, Haldwani); 135 (Miyawaki Experiment); 10 (Public Health Garden)		1012	Contr ol soil erosio n and Medi cinal	Nepal, Bhutan, China
18.	Rosaceae; <i>Principia utilis</i> Royle	 Jhitalu		Dwarson	276	Devvan	346	Saritat aal	50									672	360 (Miyawaki Experiment) 26 (R.E.T Devvan)		1058	Contr ol of soil erosio n	Native of Himalayas
19.	Fabaceae; <i>Desmodium elegans</i> DC.	 Chamlai		Dwarson	14													14	84 (Miyawaki Experiment); 58 (R.E.T Devvan)		156	Medi cinal	Nepal, Bhutan , China and Pakistan

20.	Apocynaceae; <i>Carissa opaca</i> Stapf.	 Karonda																102 (River range Kalsi); 3(Arboretum, Haldwani); 16 (Sal associate experimental site, Lalkuan); 104 Lantana Plot Kalsi); 20 (Public Health Garden)		235	Edible	Tropical and subtropical Asia, Africa and Australia.
21.	Apocynaceae; <i>Rauvolfia serpentina</i> (L.) Benth. ex Kurz	 Sarpagandha	Endangered (IUCN) ; Collection from wild closed for the time being by Uttarakhand Government	Kalsi	155	Gaja	15	Bhujiyaghat	10								180	50 (RET plot, Shyampur); 200 (Medicinal conservatory, Haldwani) 20 (Public Health Garden)		450	Medicinal	East Asia, India to Indonesia.
22.	Mimosaceae; <i>Mimosa pudica</i> L.	 Chhuimui	Least concern (IUCN)	Kalsi	250												250	(Medicinal conservatory, Haldwani) 10 (Public Health Garden)		260	Medicinal	Native to South and Central America
23.	Moraceae; <i>Maclura cochinchinensis</i> (Laur.) Corner	 Damaru/ Cockspur thorn																177 (Lantana Plot Kalsi)		177	Medicinal and Dye	Asia; Indian Subcontinent
24.	Asteraceae; <i>Artimisa nilagirica</i> (C.B.Clarke)Pamp.	 Paati		Kalsi	100												100	44 (Aromatic species project site, Lalkuan) 20 Bhujiyaghat (Aromatic plants)		164	Medicinal and Aromatic	Europe, Asia, Northern Africa.
25.	Acanthaceae; <i>Adhatoda vasica</i> Nees	 Vasa/Vasaka		Kalsi	50	Tangsa	30	Kalika	10								90	50 (RET plot,) 49 (Medicinal conservatory, Haldwani) 20 (Public Health Garden)		209	Medicinal	India , and Myanmar

26.	Thymelaeaceae; <i>Daphne papyracea</i> Wall.	 Satpura		Devvan	750												750	20(R.E.T Devvan)		770	Medi cinal	Near endemic
27.	Berberidaceae; <i>Berberis lambertii</i> Parker		Vulnerable (India Biodiversity Portal)	Patalthod	20												20	5(RET demonstration plot, Harkot, Munsyari)		25	Medi cinal	Endemic
28.	Phyllanthaceae; <i>Antidesma diandrum</i> Roth.	 Khatai		Lalkuan	7												7	100 (RET plot); 22 Pipalparao (Mixed Biodiversity Plot); 2 Arboretum, Haldwani; 17 (Mixed biodiversity plot, lalkuan); 30 (Shyampur RET Plot)		171	Food	Sub – Himalaya n tracts and Myanmar.
29.	Mimosaceae; <i>Acacia concinna</i>	 Shikakai																1(Arboretum, Haldwani); 10 (Public Health Garden)		11	Dyein g	Asia, Warm plains of central and south India.
30.	Rubiaceae; <i>Randia dumetorum</i> Lam.	 Mainfal		Shyampur	15	Lalkuan	10										25	200 (Riparian plot); 20 Pipalparao (Mixed Biodiversity Plot); 6 (Miyawaki, Haldwani); 15 (Mixed biodiversity plot, Lalkuan); 10 (Public Health Garden)		276	Medi cinal	Sub – Himalaya n tracts & outer hills from the Beas eastwards.
31.	Fabaceae; <i>Sophora mollis</i> Graham.	 Peeli sakina																10 (Shyampur RET plot)		10	Medi cinal	North Wesstern Himalayas ,China and Nepal.

32.	Fabaceae; <i>Desmodium gangeticum</i> (L.) DC.	 Salprani	Collection from wild closed for the time being by Uttarakhand Government.															150 (RET plot); 200 (Medicinal conservatory, Haldwani); 1100 approx. (Dashmool species plot, Lalkuan); 10 (Public Health Garden)		1460	Medicinal	Tropical and Sub tropical (Africa and South Asia) regions of India and Gangetic plains.
33.	Plumbaginaceae ; <i>Plumbago zeylanica</i> L.	 Chitrak		Kalsi	20												20	150 (RET plot) 36 (Medicinal conservatory, Haldwani) 12 (Public Health Garden)		218	Medicinal	South Asia
34.	Tiliaceae; <i>Grewia hirsuta</i> Vahl.	 Gurbeli		Lalkuan	140													50 (RET plot);10 (Miyawaki, Haldwani);1 Arboretum, Haldwani; 16 (Sal associate experimental site, Lalkuan)		217	Medicinal	Western Penninsul a and Myanmar
35.	Phyllanthaceae; <i>Flueggea microcarpa</i> Blum.	 Rithola		Lalkuan	6												6	200(Riparian plot); 14 (Miyawaki, Haldwani); 78 approx. (Mixed biodiversity plot, Lalkuan; 10 (Public Health Garden)		308	Medicinal	India , Myanmar
36.	Malvaceae; <i>Helicteres isora</i> L.	 Marorfali																150 (Riparian plot); 28 (Medicinal conservator, Haldwani)		178	Medicinal	India , Pakistan, Nepal and Myanmar

37.	Rhamnaceae; <i>Ziziphus mauritiana</i> Lam.	 Ber																100(Riparian plot); 2 (Arboretum, Haldwani); 16,(Sal associate experimental site, Lalkuan)		118	Edible	Indo Malaysian region of SE. Asia.	
38.	Viburnaceae; <i>Viburnum cotinifolium</i> Don.	 Guiya		Saritataal	235	Patalthod	100											335	2(Arboretum Gaja)		337	Medicinal	Near endemic
39.	Fabaceae ; <i>Meizotropis pellita</i> (Hook.f. ex Prain) sanjappa	 Patwa	Threatened State Biodiversity Board) Endangered (Research Paper)	Saritataal	100													100	2(Arboretum Gaja)		102	Antimicrobial	Endemic to Patwadangar (Nainital)
40.	Fabaceae ; <i>Desmodium gyrans</i> (L.) DC.	 Dancing Plant																	5 (Bhujiyaghat Aromatic plants); 1 (Arboretum, Haldwani); 6 (Conservatory plot, Haldwani)		12	Ornamental	Tropical Asia
41.	Rutaceae; <i>Murraya koenigii</i> Spreng.	 Kadhipatta		Lalkuan	6	Bhujiyaghat	5											11	2(Bhujiyaghat Aromatic plants); 1 (Arboretum, Haldwani); 13 Miyawaki experiment		27	Spice	Native to India
42.	Theaceae ; <i>Camellia sinensis</i> (L.) Kuntze	 Chai	Data deficient (IUCN)	Lalkuan	2													2	1 Bhujiyaghat (Aromatic plants); 1 (Arboretum, Haldwani); 2 (Mixed biodiversity plot, Lalkuan)		6	Beverage	Northeast India, Assam, Upper Myanmar, China, Sikkim

43.	Apocynaceae; <i>Tabernaemontana divaricata</i> R.Br.ex Roem. & Schult.	 Chandni																5 Bhujiyaghat (Aromatic plants)		5	Ornamental	Native to India
44.	Verbenaceae; <i>Lippia alba</i> (Mill.) N.E.Br. ex Britton & P. Wilson	 Lippia																10 Bhujiyaghat (Aromatic plants); 6 (Aromatic zone Lalkuan)		16	Medicinal and Aromatic	Native to southern Texas in the United States, Mexico
45.	Malvaceae. <i>Hibiscus rosa sinensis</i> L.	 Gurhal																20 (Gurhal vaatika, Haldwani); 1 (Arboretum Gaja); 15 (Public Health Garden)		36	Edible and Medicinal	East Asia
46.	Primulaceae; <i>Embelia robusta</i> Roxb.	 Waiwiding																8 (Miyawaki, Haldwani); 16 (Mixed biodiversity plot, Lalkuan)		24	Medicinal	East Asia, Sri Lanka, India and Malaysia
47.	Sterculiaceae; <i>Abroma augusta</i> (L.) L.f.	 UlatKambal		Lalkuan	24													8 (Miyawaki, Haldwani); 1 (Medicinal conservatory, Haldwani); 10 (Public Health Garden)		43	Medicinal	Sikkim, Khasia hills and Assam.
48.	Solanaceae; <i>Solanum indicum</i> L.	 Brahti																100 (Medicinal conservatory, Haldwani); 2000 approx. (Dashmool species experimental plot, Lalkuan); 10 (Public Health Garden)		2110	Medicinal	Tropical and Subtropical India.

49.	Fabaceae; <i>Tephrosia purpurea</i> (L.) Pers.	 Sarpunkha																150 (Medicinal conservatory, Haldwani) 10 (Public Health Garden)		160	Medi cinal	India and Sri Lanka.
50.	Fabaceae; <i>Uraria picta</i> (Jacq.) Desv. ex DC.	 Prastparni	Collection from wild closed for the time being by Uttarakhand Government.															80 (Medicinal conservatory, Haldwani); 700 (approx.) (Dashmool species, Lalkuan); 10 (Public Health Garden)		790	Medi cinal	Tropical Africa, India, China and Indonesia.
51.	Apocynaceae; <i>Calotropis procera</i> (Aiton) W.T. Aiton	 Aakh																1 (Nav GrahaVaatika) ; 1 (Nakshtra Vaatika) 12 (Public Health Garden)		14	Medi cinal	N. Africa, W. Asia South Asia and Indochina.
52.	Oleaceae; <i>Jasminum sambac</i> (L.) Aiton	 Bela / Mogra																4 (Aromatic zone, Haldwani); 30 (Aromatic species project site, Lalkuan)		34	Arom atic	Tropic Asiafrom the Indian subcontin ent to Southeast Asia.
53.	Oleaceae; <i>Jasminum officinalis</i> L.	 Chameli																4(Aromatic block, Haldwani); 1 (Aromatic species project site, Lalkuan)		5	Arom atic	India, Nepal, Pakistan and Himalayas .
54.	Rutaceae; <i>Murraya paniculata</i> (L.) Jack	 Mano Kamini																4 (Aromatic block, Haldwani); 4 (Aromatic species project site, Lalkuan)		8	Arom atic	Southeast Asia and China

55.	Tiliaceae; <i>Grewia sapida</i> Roxb.	 Falsa		Lalkuan	52												52	1(Arboretum, Haldwani); 150 approx. (Lalkuan research range, Lalkuan)		153	Edible	Indian subcontinent
56.	Liliaceae; <i>Asparagus racemosus</i> Willd.	 Satavar	Limited collection allowed by Uttarakhand Government	Kalika	10	Dwarson	15	Gaja	150	Bhujiyaghat	100						275	18 (Arboretum, Haldwani) 20 (Public Health Garden)		313	Medicinal	India
57.	Moraceae; <i>Cudrania javanesis</i> Trec.	 Dammar		Lalkuan	8													1 (Arboretum, Haldwani)		1	Edible	Asia, Africa and Australia
58.	Rhamnaceae; <i>Ziziphus oenoplia</i> (L.)Mill.	 Makoh ber		Lalkuan	6												6	16 (Sal associate experimental site); 15 (Shrub conservatory, Lalkuan)		37	Edible and Medicinal	Tropical and subtropical Asia and Australasia
59.	Caesalpiniaceae; <i>Caesalpinia bonduc</i> L.	 Latakaranj	Endangered (IUCN) Environment Protection and Biodiversity Conservation Act 1999	Lalkuan	2												2	8 (Sal Associate Experimental plot, Lalkuan)		10	Medicinal	India (Nicobar Islands) and Sri Lanka.
60.	Rosaceae; <i>Rosa damascena</i> var. Ranisahiba	 Gulab rani sahiba																12 (Aromatic species project site, Lalkuan)		12	Perfumery	

61.	Asteraceae; <i>Artemisia absinthium</i> L.	 Common wormwood		Saritataal	60												60	44 (Aromatic species project site, Lalkuan)		104	Medicinal & Aromatic	Native to temperate regions of Eurasia and Northern Africa.
62.	Malvaceae; <i>Abelmoschus moschatus</i> Medik	 Kasturi bhindi																30 (Aromatic species project site, Lalkuan)		30	Medicinal and Perfumery	Asia and Australia.
63.	Oleaceae; <i>Jasminum auriculatum</i> Vahl	 Juhi																20 (Aromatic species project site, Lalkuan); 2 (Aromatic zone Haldwani)		22	Aromatic and Religious	Indian subcontinent
64.	Rubiaceae; <i>Gardenia jasminoides</i> J.Ellis	 Gandhraj																10 (Aromatic species project site, Lalkuan)		10	Aromatic	Asia, India, Myanmar, Vietnam, Japan and Bangladesh
65.	Mimosaceae; <i>Acacia benthamii</i> Meisn.																	2(Arboretum at Gaja)				Native to Western Australia
66.	Verbenaceae; <i>Vitex negundo</i> L.	 Nirgundi	Least concern (IUCN)	Lalkuan	141	Tangsa	100	Kalika	100							341		1(Arboretum Gaja); 100 (Riparian plot); 5 Bhujiyaghat (Aromatic plants); 1 (Arboretum, Haldwani); 28 (Medicinal		691	Medicinal	Native to India

																		conservatory, Haldwani); 200 Approx. (Mixed biodiversity plot, Lalkuan); 15 (Public Health Garden)					
67.	Liliaceae; <i>Asparagus curillus</i> Buch. Ham. ex Roxb.	 Satawar		Tangsa	27	Kalsi	290											317	50 (Riparian plot)		367	Medi cinal	Near Endemic
68.	Rhamnaceae; <i>Rhamnus virgatus</i> Roxb.	 Chaduel		Sariataal	795	Lalkuan	5											800	1 (Arboretum Gaja); 1(Arboretum Gaja)		802	Edibl e and Medi cine	Pakistan, Nepal, Bhutan.
69.	Anacardiaceae; <i>Rhus parviflora</i> Roxb.	 Tungla																	1(Arboretum Gaja)		1	Edibl e	Himalayas
70.	Fabaceae; <i>Indigofera pulchella</i> Roxb.	 Sakina		Dwarson	534	Kalika	200											734	1(Arboretum Gaja)		735	Medi cinal and Edibl e	Near Endemic
71.	Rhamnaceae; <i>Ziziphus xylopyrus</i> Wall.	 Kathber																	16 (Sal associate experimental site, Lalkuan); 5 (Shrub conservatory, Lalkuan)		21	Medi cinal and edible	Indian Su bcontinent

72.	Rubiaceae; <i>Coffea arabica</i>	 Coffee	Endangered (IUCN)	Lalkuan	1	Haldwani	1										2				Edible	Southern Africa and tropical Asia.
73.	Lythraceae; <i>Lawsonia inermis</i> L.	 Mehendi																1 (Arboretum, Haldwani) 10 (Public Health Garden)		11	Dye	South Africa, and Sudan
74.	Apocynaceae <i>Gomphocarpus phycocarpus</i>			Patalthod	60												60			60	Medicinal	Exotic
75.	Buxaceae <i>Buxus wallichiana</i>	 Papdi		Patalthod	200	Kalika	20										220			220	Medicinal and Toy making	Native to Eurasia
76.	Eleagnaceae <i>Elaeagnus parvifolia</i> D. don	 Gwen		Patalthod	100												100			100	Medicinal and Food	Native to Asia
77.	Caprifoliaceae <i>Leycesteria formosa</i>	 Bhekan		Patalthod	30												30			30	Food purpose	China to the Himalaya
78.	Rubiaceae; <i>Rubus paniculatus</i> Sm.	 Kala hisalu		Dwarson	20	Saritalaal	300										320	15 (Public Health Garden)		335	Medicinal	Indian Subcontinent

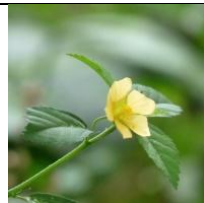
79.	Apocynaceae; <i>Gymnema sylvestre</i>	 Gurmar		Haldwani	2												2	10 (Public Health Garden)		12	Medicinal	Native to tropical Asia
80.	Malvaceae; <i>Sida cordifolia</i>	 Bala		Haldwani	2												2	10 (Public Health Garden)		12	Medicinal	Native to India
81.	Goodeniaceae ; <i>Scaevola taccada</i>	 Beach cabbage		Haldwani	1												1				Edible and Medicinal	Native to Indian and Pacific Ocean region
82.	Caprifoliaceae ; <i>Abelia grandiflora</i>	 Glossy abelia		Haldwani	4												4			4	Aromatic	Native to eastern Asia
83.	Acanthaceae; <i>Beloperone guttata</i>	 Shrimp plant		Haldwani														10 (Pollinator Park)		10	Ornamental	Native to Mexico
84.	Fabaceae; <i>Calliandra brevipes</i>	 Pink powder puff		Haldwani	6												6			6	Ornamental	Native to South America
85.	Hydrangeaceae; <i>Hydrangea macrophylla</i>			Haldwani	12	Kalika	5	Dwarfson	5	Gaja	40						62			62	Ornamental	Native to Japan

86.	Euphorbiaceae; <i>Euphorbia cotinifolia</i>			Haldwani	12												12			12	Orna menta l	Native to Mexico
87.	Theaceae; <i>Camellia japonica</i>	 Japanese camellia		Haldwani	8	Lalkuan	4	Kalika	6	Dwa rson	10						28			28	Orna menta l	Native to China and Japan
88.	Euphorbiaceae; <i>Acalypha wilkesiana</i>	 Copperleaf		Haldwani	3												3			3	Medi cinal	Native to Fiji
89.	Rosaceae; <i>Spiraea thunbergii</i>	 Thunberg spiraea		Haldwani														2 (Arboretum Haldwani)		2	Edibl e	Native to East China and Japan
90.	Fabaceae; <i>Indigofera tinctoria</i>	 True indigo		Haldwani	6												6			6	Sourc e of Indig o Dye	Naturalize d in tropical and temperate Asia
91.	Plumbaginaceae, <i>Plumbago indica</i>	 Red Chitrak		Haldwani	10												10	10 (Public Health Garden)		20	Medi cinal	Native to Southeast Asia, Indonesia, the Philippines, and Yunnan in southern China.
92.	Apocynaceae; <i>Carissa carandas</i>	 Karunda		Haldwani													10	6 (Public Healthn Garden)		16	Edibl e and Medi cinal	Native to India

93.	Magnoliaceae; <i>Magnolia liliiflora</i>	 Lily magnolia		Kalika	50												50	10 (Aromatic Project Site)		10	Orna menta l	Native to southw est China
94.	Verbenaceae; <i>Clerodendrum chinense</i>	 Chinese Glory Bower		Lalkuan	9												9			9	Medi cinal	Native to Nepal, eastern Himalayas, Andaman and Nicobar Islands, southeast China, Asia, and Malesia.
95.	Burseraceae; <i>Commiphora wightii</i>	 Guggal	Critically Endangered (IUCN)	Lalkuan	2												2	8 (Aromatic species project site, Lalkuan); 5 (Public Health Garden)		15	Medi cinal	Found in Pakistan and India.
96.	Fabaceae ; <i>Cassia tora</i>	 Panwar		Lalkuan	6												6			6	Medi cinal	Native range is in Central America.
97.	Myrtaceae; <i>Pimenta dioica</i>	 Jamaica pepper		Lalkuan	40												40	25 (Aromatic species project site)		65	Arom atic	Native to the Greater Antilles, southern Mexico, and Central America.
98.	Solanaceae; <i>Cestrum diurnum</i>	 Din Ka Raja																10 (Aromatic species project site)		9	Arom atic	Native to the West Indies.
99.	Verbenaceae; <i>Clerodendrum wallichii</i>	 Bridal Veil		Haldwani	10												10			10	Orna menta l	Native to North East India

100.	Asteraceae; <i>Ayapana triplinervis</i>	 Ayapana																10 (Aromatic species project site)		10	Arom atic	Originally native to Brazil.
101.	Verbenaceae; <i>Holmskioldia sanguinea</i>	 Chinese hat plant		Gaja	200												200	15(Palmetum Haldwani)		215	Orna menta l	Native to the Himalayan lowlands
102.	Pandanaceae; <i>Pandanus amaryllifolius</i>	 Pandanus																5 (Aromatic species project site, Lalkuan)		5	Perfu me indust ry	
103.	Polygonaceae; <i>Rumex hastatus</i>																	20 (Gaja) Wild flowers and 20 medicinal beds; 10 Public Health Garden		50	Medi cinal	Eurasia and North Africa.
104.	Anacardiaceae; <i>Cotinus cogyria</i> Scop.					Tangsa	20										20			20	Orna menta l	Himalayas to northern China
105.	Asteraceae; <i>Artimisia vulgaris</i>	 Common mugwort																20 Bhujiyaghat (Aromatic plants); 10 Public Health Garden		30	Arom atic & Medi cinal	Europe , Asia, North Africa and Alaska

106.	Asteraceae; <i>Artimisia indica</i>	 Indian wormwood																20 Bhujiyaghat (Aromatic plants)		20	Aromatic & Medicinal	India and East Asia
107.	Euphorbiaceae; <i>Euphorbia pilosa</i>	 Dudhya						Devvan	25								25			25		
108.	Euphorbiaceae; <i>Baliospermum montanum</i>	 Danti																10 (Public Health Garden)		10	Medicinal	Sub-Himalayan tracts from Khasi Hills to Kashmir.
109.	Apocynaceae; <i>Catharanthus roseus</i>	 Sadabahar																20 (Public Health Garden)		20	Medicinal and Ornamental	Endemic to Madagascar
110.	Euphorbiaceae; <i>Ricinus communis</i> . L	 Castor bean																10 (Public Health Garden)		10	Medicinal	Indigenous to the southeastern Mediterranean Basin, Eastern Africa, and India
111.	Fabaceae; <i>Clitoria ternatea</i>	 Aparajita		Gaja	1051	Bhujiyaghat	699										1750	10 (Public Health Garden)		1760	Medicinal	Native to Southeast Asia
112.	Asteraceae; <i>Plantago lanceolata</i>	 Rasana																10 (Public Health Garden)		10	Medicinal	Native to S. Iran to Indian Subcontinent.

113.	<i>Amaryllidaceae</i> ; <i>Bulbine asiatica</i>																	10 (Public Health Garden)		10	Medicinal	Native to tropical southeastern Asia
114.	<i>Apocynaceae</i> ; <i>Rauvolfia tetraphylla</i>	 Wild Snakeroot																10 (Public Health Garden)		10	Medicinal	Native to tropical America
115.	<i>Verbenaceae</i> ; <i>Callicarpa macrophylla</i>	 Priyangu																10 (Public Health Garden)		10		Himalaya, from Kashmir to Bhutan, India, Burma and S. China
116.	<i>Malvaceae</i> ; <i>Sida rhombifolia</i>	 Mahbala																10 (Public Health Garden)		10	Medicinal	Native to the Old World tropics and subtropics
117.	<i>Malvaceae</i> ; <i>Abutilon indicum</i>	 Atibala																10 (Public Health Garden)		10	Medicinal	Found on tropical and subtropical zones
118.	<i>Pedaliaceae</i> ; <i>Pedaliium murex</i> Linn	 Bada Gokharu																10 (Public Health Garden)		10	Medicinal	Deccan region of India and in some parts of Ceylon
119.	<i>Lamiaceae</i> ; <i>Premna barbata</i>	 Agneu																10 (Public Health Garden)		10	Medicinal	Native to Myanmar and to the Indian Subcontinent

120.	Fabaceae; <i>Psoralea corylifolia</i>	 Bakuchi																10 (Public Health Garden)		10	Medi cinal	Native to India and Sri Lanka
121.	Rosaceae; <i>Rosa damascena</i> <i>var. Noorjahan</i>	 Noorjahan																10 (Aromatic species project site, Lalkuan)		10	Perfu mery	-
122.	Asteraceae; <i>Tagetes minuta</i>	 Genda																10 (Aromatic species project site, Lalkuan)		10	Perfu mery	Native to the southern half of South America
123.	Scrophulariac eae; <i>Buddleja salviifolia</i>	 Sage bush																10 (Aromatic species project site, Lalkuan)		10	Perfu mery	Endemic southern and eastern Africa, from Kenya and Angola
124.	Solanaceae; <i>Cestrum nocturnum</i>	 Rat ki rani																10 (Aromatic species project site, Lalkuan)		10	Perfu mery	Native to the West Indies
125.	Lamiaceae; <i>Origanum 'French'</i>	 French Marjoa																10 (Aromatic species project site, Lalkuan)		10	Spice , food preser tive	-
126.	Oleaceae; <i>Jasminum sambac</i> <i>var. 'Grand Duke of Tuscany'</i>	 Butt Mogra																10 (Aromatic species project site, Lalkuan)		10	Perfu mery	Native to India and Iran

127.	Rubiaceae; <i>Gardenia jasminoides 'R adicans'</i>	 Anant		Gaja	150												150	10 (Aromatic species project site, Lalkuan)		160	Perfu mery	Native to southern China and Japan
128.	Linaceae; <i>Linum usitatissimum</i>	 Alsi/Flax																40 (Food Forest, Lalkuan)		40	Edibl e	-
129.	Fabaceae; <i>Cajanus cajan</i>	 Arhar																45 (Food Forest, Lalkuan)		45	Edibl e	Native to Asia
130.	Fabaceae; <i>Cicer arietinum</i>	 Chana/Chickpe a																40 ((Food Forest, Lalkuan)		40	Edibl e	Native to western Asia
131.	Cannabaceae; <i>Cannabis sativa</i>	 Bhang/Hemp																5 (Public Health Garden)		5	Medi cinal	Indigenou s to Eastern Asia
132.	Fabaceae; <i>Alexandrian Senna</i>	 Alexandrian senna																5 (Public Health Garden)		5	Medi cinal and orna menta l	Native to Egypt

133.	Lamiaceae; <i>Vitex trifolia</i>	 Simpleleaf chastetree																5 (Public Healthn Garden)		5	Medi ci nal	Native to tropical East Afric a
134.	Solanaceae; <i>Solanum lasiocarpum</i>	 Nightshade																10 (Public Healthn Garden)		10	Medi ci nal	Native to Indian subcontin ent
135.	Solanaceae; <i>Solanum surattense</i>	Kanthkari 		Gaja	85												85			85		Himalayas , South- East Mala ysia, Aust ralia, and Polyn esia
136.	Hyperceaceae; <i>Hypericum calycinum</i>	Basant 		Kalika	30												30			30	Medi cinal	-----
137.	Acanthaceae; <i>Phlogacanthus thyrsiformis</i> (Roxb. ex Hardw.)Mabb.	 Chuwa		Lalkuan	5	Tangsa	3										8			8	Medi cinal	Uttarakh and & North East
138.	Acanthaceae; <i>Barleria prionitis</i>																	10 (Public Healthn Garden)		10	Medi cinal	Native to Island and Mainland Southeast Asia, China, the Indian

		Peela Vasa																				Subcontinent, the Arabian Peninsula and northeastern Africa.
139.	Primulaceae; <i>Embelia ribes</i>	 Vaividang																10 (Public Healthn Garden)		10	Medicinal	Widely distributed throughout India.
140.	Fabaceae; <i>Senna alexandrina</i>	 Senna																5 (Public Healthn Garden)		5	Medicinal and Edible	Indigenous to Sudan and Sinai.
141.	Fabaceae; <i>Sesbania sesban</i>	 Jayanti																6 (Public Healthn Garden)		6	Medicinal and Edible	Africa, through Arabia, southern Asia to Australia.
142.	Tamaricaceae; <i>Tamarix dioica</i>	 Jhau																10 (Public Healthn Garden); 1(Arboretum at Gaja)		11	Medicinal and Edible	Native to Asia.

IV. Bamboo / Ringal Species

Bamboo species are being conserved at Research Range Haldwani and Gopeshwar.

S. No.	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery										Experiment Site	Preservation Plot	Grand Total	Use	Native Region		
				Nursery Name																
				1		2		3		4		5							Total	
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant							
1.	Bambusoideae; <i>Dendrocalamus hamiltonii</i>	 Hamiltonii Bans		Lalkuan	420	Shyampur	06							426	10 (Trishula comp.1 K.W.L.D); 131 (River range Kalsi); 900 (Bambusetum, Haldwani); 1080 (Bambusetum, Lalkuan)		2548	House frames	Native to Northeast Himalayas.	
2.	Bambusoideae; <i>Dendrocalamus strictus</i>	 Laathi bans		Shyampur	08	Shrikot	47696	Kalika	91	Dwarson	20	Kalika	80	47895	228 (Trishula comp. 1 K.W.L.D); 91 (River range Kalsi); 104 (Arboretum Haldwani) 1300 (Bambusetum, Haldwani); 1075 (Bambusetum, Lalkuan)		50611	House frames	Native to Southeast Asia	
3.	Bambusoideae; <i>Phyllostachys edulis</i>	 Chinese Bans													153 (Trishula comp. 1 K.W.L.D); 46 (River range Kalsi)		200	Textile industry	Native to China and Taiwan	

4.	Bambusoideae; <i>Thyrsostachys siamensis</i>	 Siamensis Bans		Shyampur	08								08	9(Trishula comp.1 K.W.L.D); 450 (Bambusetum, Haldwani), 276 (Bambusetum, Lalkuan)		744	Shelter and basket making.	Native to Yunnan, Myanmar, Laos, Thailand and Vietnam.
5.	Bambusoideae; <i>Dendrocalamus membranaceus</i>	 Membranaceus Bans	Least Concern (IUCN)	Shyampur	03									9 (Trishula comp. 1 K.W.L.D); 590 (Bambusetum, Haldwani); 958 (Bambusetum, Lalkuan)		1558	To control soil erosion.	Native to Northeastern Thailand
6.	Bambusoideae; <i>Thamnocalamus falconeri</i>	 Dev Ringal												25 (Trishula comp. 1 K.W.L.D); 10 (Bambusetum, Haldwani)		36	Basket making	Himalayan Region.
7.	Bambusoideae; <i>Thamnocalamus spathiflorus</i>	 Tham Ringal		Patalthod	50								50	25 (Trishula comp. 1 K.W.L.D)		76	Agricultural use	Native to Himalayan Region.
8.	Bambusoideae; <i>Arundinaria falcata</i>	 Gol Ringal		Mandal	57271	Tangsa	5834	Devvan	1007				64112	24 (Trishula comp.1 K.W.L.D)		64137	Basket making	Native to Northwest Himalaya.
9.	Bambusoideae; <i>Chimonobambusa jaunsarensis</i>	 Sarur Ringal												19 (Trishula comp. 1 K.W.L.D)		20	Broom making	Native to China, Japan, Vietnam and Himalayas.

10.	Bambusoideae; <i>Bambusa bambos</i>			Lalkuan	210									127 (River range Kalsi); 10 (Bambusetum, Lalkuan)		347	Making bridges and for ladders	Native to Southeast Asia
		Kanta baans																
11.	Bambusoideae; <i>Bambusa vulgaris</i>		Least Concern (IUCN)	Shyampur	08								08	47 (River range Kalsi); 250 (Bambusetum, Haldwani); 480 (Bambusetum, Lalkuan)		785	Huts, Boats, Fences and Musical Instrum – ents.	Native to Indochina and to the province of Yunnan in Southern China
		Baans																
12.	Bambusoideae; <i>Arundinaria falcata</i>			Patalthod	50								50			50	Basket and Handicraft	Native of the Northwest Himalaya
		Gud ringal																
13.	Bambusoideae; <i>Bambusa multiplex</i>			Lalkuan	360	Shyampur	05						365	450 (Bambusetum, Haldwani); 125 (Bambusetum, Lalkuan)		940	Fence	Native to China.
		Hedge bamboo																
14.	Bambusoideae; <i>Dendrocalamus longispathus</i>			Shyampur	02								02	600 (Bambusetum, Haldwani); 564 (Bambusetum, Lalkuan)		1166	Handicrafts and Timber	Native to Bangladesh, Myanmar, and Thailand.
15.	Bambusoideae; <i>Dendrocalamus asper</i>													450 (Bambusetum, Haldwani); 1253 (Bambusetum, Lalkuan)		1703	Construction and Edible	Native to Southeast Asia.
		Giant Bamboo																

16.	Bambusoideae; <i>Melocanna beccifera</i>	 Berry Bamboo		Shyampur	02								2	180 (Bambusetum, Haldwani); 1099 (Bambusetum, Lalkuan)		1279	Edible and Medicinal	Indian subcontinent
17.	Bambusoideae; <i>Dendrocalamus giganteus</i>	 Dragon bamboo	Least concern (IUCN)	Lalkuan	359								359	650 (Bambusetum, Haldwani); 670 (Bambusetum, Lalkuan)		1679	Construction	Native to Southeast Asia
18.	Bambusoideae; <i>Bambusa balcooa</i>	 Female bamboo												300 (Bambusetum, Haldwani); 235 (Bambusetum, Lalkuan)		535	Edible	Native to Northeast India and the Indian subcontinent.
19.	Bambusoideae; <i>Phyllostachys reticulata</i>			Lalkuan	135								135	750 (Bambusetum, Haldwani); 25 (Bambusetum, Lalkuan)		910	Medicinal	Native to China
20.	Bambusoideae; <i>Bambusa wamin</i>	 Buddha Bamboo		Lalkuan	240	Shyampur	04						244	650 (Bambusetum, Haldwani); 495 (Bambusetum, Lalkuan)		1389	Ornamental	Native to South China.
21.	Bambusoideae; <i>Bambusa nutans</i>													1050 (Bambusetum, Haldwani); 478 (Bambusetum, Lalkuan)		1528	Ornamental	Northeast India, Bangladesh, Myanmar nad Thailand.

22.	Bambusoideae; <i>Bambusa tulda</i>	 Indian timber bamboo												1100 (Bambusetum, Haldwani); 15 (Bambusetum, Lalkuan)		1115	Edible	Native to the Indian subcontinent, Indo china, Tibet, and Yunnan.
23.	Bambusoideae; <i>Phyllostachys nigra</i>													800 (Bambusetum, Haldwani); 126 (Bambusetum, Lalkuan)		926	Musical instrumenta	Native to Hunan Province of China.
24.	Bambusoideae; <i>Thyrsostachys oliveri</i>	 Oliveri												250 (Bambusetum, Haldwani)		250	Construction and Edible	Native of Myanmar
25.	Bambusoideae; <i>Bambusa polymorpha</i>													380 (Bambusetum, Haldwani)		380	Pulp, Paper and Construction	Native to Bangladesh, Laos, Myanmar, Thailand, Sri Lanka.
26.	Bambusoideae; <i>Bambusa pallida</i>	 Bakhal												560 (Bambusetum, Haldwani)		560	Basketry and Edible	Indian subcontinent
27.	Bambusoideae; <i>Bambusa chungii</i>	 White bamboo												90 (Bambusetum, Haldwani)		90	Construction and Ornamental	Found in Hong Kong, and distribution in Southern China and Vietnam.

28.	Bambusoideae; <i>Dendrocalamus brandisii</i>	 Velvet Leaf Bam													184 (Bambusetum)		184	Building material	Endemic to India (Bamboo Diversity of India: An updateM.L. Sharma and Nirmala C.Department of Botany, Panjab University Chandigarh 160014)
29.	Bambusoideae; <i>Dinochloa andamanica</i>														95 (Bambusetum)		95	Ropes	Endemic to India (Bamboo Diversity of India: An updateM.L. Sharma and Nirmala C.Department of Botany, Panjab University Chandigarh 160014)
30.	Bambusoideae; <i>Bambusa nigra</i>														25 (Bambusetum, Lalkuan)		25	Musical instruments	Native to China
31.	Bambusoideae; <i>Bambusa glaucophylla</i>	 Malay Dwarf													75 (Bambusetum, Lalkuan)		75	Ornamental	Native to Jawa
32.	Bambusoideae; <i>Dendrocalamus stocksii</i>														5 (Bambusetum, Lalkuan)		5	Furniture, Handicraft and Edible	Indian subcontinent

33.	Bambusoideae; <i>Bambusa sasa</i>														25 (Bambusetum, Lalkuan)		25	Medicinal	Native to Japan
34.	Bambusoideae; <i>Bambusa cacharensis</i>														3 (Bambusetum, Lalkuan)		3	Medicinal and Edible	Native ro India
35.	Bambusoideae; <i>Oxytenanthera nigrociliata</i>	 Guada Bamboo													10 (Bambusetum, Lalkuan)		10	Edible and Construct ion	Natuve to Asia
36.	Bambusoideae; <i>Bambusa salarkhanii</i>			Lalkuan	10										10			Basketry	Himalaya to Indo China
37.	Bambusoideae; <i>Schizostachyum dullooa</i>			Lalkuan	9										9			Flute making	Native to Southeast Asia
38.	Bambusoideae; <i>Gigantochloa andamanica</i>		-	Lalkuan	3							3			3		-		

39.	Bambusoideae; <i>Gigantochloa atroviolacea</i>	 Java Black Bamboo	-	Lalkuan	3							3			3		Native to Java, Indonesia		
40.	Bambusoideae; <i>Gigantochloa nigrociliata</i>	 Black Hair Bamboo		Lalkuan	3							3			3				
41.	Bambusoideae; <i>Melocanna baccifera</i>	 Berry Bamboo	-	Lalkuan	3							3			3		It is native to Bangladesh, Myanmar, India, and Thailand.		
42.	Bambusoideae; <i>Ochlandra travancorica</i>	 Reed bamboo	-	Lalkuan	3							3			3		Endemic to the Western Ghats, India.		
43.	Bambusoideae; <i>Bambusa variegata</i>		-	Lalkuan	3							3			3				
44.	Bambusoideae; <i>Gigantochloa albociliata</i>		-	Lalkuan	3							3			3				

45.	Bambusoideae; <i>Bambusa mizorameana</i>			Lalkuan	3							3			3				
46.	Bambusoideae; <i>Schizostachyum brachycladum</i>	 Sacred Bali Bamboo		Lalkuan	3							3			3				

V. Wild Climber Species

Wild Climber Species are being conserved at Research Range, Haldwani and Dehradun.

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery								Total	Experiment Site	Preservation Plot	Grand Total	Use	Native Region
				Nursery Name													
				1		2		3		4							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Fabaceae; <i>Pueraria tuberosa</i>	 Vidari kand										100 (RET plot and Riparian plot); 2 (Lata Pergola, Haldwani) 15 (Public Health Garden)		117	Medicinal	Native to India, Pakistan and Nepal.	
2.	Fabaceae; <i>Spatholobus parviflorus</i>	 Malan latta	Least concern(IUCN)									100 (RET plot); 2 (Lata Pergola, Haldwani)		102	Medicinal	Native to Sri Lanka	
3.	Celastraceae; <i>Celastrus paniculatus</i>	 Maalkangni		Lalkuan	7							50 (RET plot); 9 (Sal Associate Experimental plot, Lalkuan); 1 (Arboretum, Haldwani); 45 (Lantana Plot Kalsi)		105	Medicinal	Native to India	
4	Convolvulaceae; <i>Argyreia nervosa</i>	 Vidara										2 (Lata Pergola, Haldwani) 15 (Public Health Garden)		12	Medicinal	Native to India	
5	Menispermaceae; <i>Tinospora cordifolia</i>	 Giloy	Collection closed for the time being by Uttarakhand Government	Haldwani	400	Lalkuan	5	Tangsa	20	Kalika	5	410	2 (Lata Pergola, Haldwani)		427	Medicinal	Throughout the tropical region of India.

6	Caesalpiniaceae; <i>Bauhinia vahlii</i>	 Maalu										2 (Lata Pergola, Haldwani); 2 (Sal Associate Experimental plot)/ 1(Arboretum Gaja)		5	Medicinal and Fodder	India, Nepal and Bhutan.	
7	Menispermaceae; <i>Stephania glabra</i>	 Ganjaru										2 (Lata Pergola, Haldwani) 5 (Public Health Garden)		7	Medicinal	Native to India	
8	Asclepiadaceae; <i>Tylophora indica</i>	 Antamul		Lalkuan	6	Gaja	72					77	2 (Lata Pergola, Haldwani), 50 (RET plot, Shyampur)		130	Medicinal	Indigenous to India.
9	Asclepiadaceae; <i>Leptadenia reticulata</i>	 Jivanti											2 (Lata Pergola, Haldwani)		2	Medicinal	Distributed throughout Madagascar, Mauritius, Myanmar, and Sri Lanka.
10	Convolvulaceae; <i>Ipomoea turpethum</i>	 Nisoeth											2 (Lata Pergola, Haldwani)		2	Medicinal	Native to Asia
11	Rubiaceae; <i>Paederia foetida</i>	 Gandhprasarni											2 (Lata Pergola, Haldwani) 15 (Public Health Garden)		17	Medicinal	Native to both temperate and tropical Asia, from India to Japan and South East Asia.

12	Dioscoreaceae; <i>Dioscorea belophylla</i>	 Turar										2 (Lata Pergola, Haldwani)		2	Medicinal and Edible	Native to Africa, Asia and northern Australia.
13	Menispermaceae; <i>Cissampelos pareira</i>	 Akanadi/ laghupatha										2 (Lata Pergola, Haldwani) 20 (Gaja medicinal beds)		22	Medicinal	Native to India and Africa.
14	Apocynaceae; <i>Ichnocarpus frutescens</i>	 Dudhlata										2 (Lata Pergola, Haldwani)		2	Medicinal	Native to China, India, Southeast Asia, and northern Australia.
15	Smilacaceae; <i>Smilax aspera</i>	 Chopachini										2 (Lata Pergola, Haldwani)		2	Medicinal	Himalayas, from Pakistan to Bhutan.
16	Fabaceae; <i>Mucuna pruriens</i>	 Kiwach										2 (Lata Pergola, Haldwani) 15 (Public Health Garden)		17	Medicinal	Native to Africa and tropical Asia.
17	Apocynaceae; <i>Hemidesmus indicus</i>	 Anantamul										2 (Lata Pergola, Haldwani) 10 (Public Health Garden)		12	Medicinal	It occurs over the greater part of India, from the upper Gangetic plain eastward to Assam
18	Asclepiadaceae; <i>Holostemma annulare</i>	 Chirvel										2 (Lata Pergola, Haldwani)		2	Medicinal	Native to southern Asia (China, Nepal, Pakistan, Kashmir, India, Sri Lanka, Myanmar, Thailand).

19	Asclepiadaceae; <i>Aristolochia indica</i>	 Hooka bel/ Dug bel										2 (Lata Pergola, Haldwani)		2	Medicinal	Southern India and also Sri Lanka.
20	Capparidaceae; <i>Capparis horrida</i>	 Aradanda										2 (Lata Pergola, Haldwani)		2	Medicinal	Indian subcontinent, Indo China, China and Malaysia.
21	Fabaceae; <i>Abrus precatorius</i>	 Ratti										2 (Lata Pergola, Haldwani)		2	Medicinal	Native to Asia and Australia.
22	Moraceae; <i>Ficus hederacea</i>	 Creeping Ficus										2 (Lata Pergola, Haldwani)		2	Medicinal	Native range is Himalaya to S. China and Indo China
23	Araliaceae; <i>Hedera helix</i>	 Common ivy										2 (Lata Pergola, Haldwani)		2	Medicinal	Native to Europe
24	Asclepiadaceae; <i>Cryptolepis buchananii</i>	 Kala bel										2 (Lata Pergola, Haldwani)		2	Medicinal	Native range is Indian Subcontinent to S. China and Indo China

25	Smilacaceae; <i>Smilax zeylanica</i>	 Kumarika										2 (Lata Pergola, Haldwani)		2	Medicinal	Native to parts of the Indian Subcontinent as well as in Myanmar, Malaysia, Java and Solomon Islands.
26	Araceae; <i>Rhaphidophora sp.</i>											2 (Lata Pergola, Haldwani)		2	Medicinal	
27	Passifloraceae; <i>Passiflora incarnata</i>	 Wild passion vine/ Rakhi bel										2 (Lata Pergola, Haldwani)/ 2 (Wild edible Plants Gaja) 2 (Public Health Garden)		6	Medicinal	Native to the Southeastern United States.
28	Ranunculaceae; <i>Clematis virginiana</i>											2 (Lata Pergola, Haldwani)		2	Medicinal	Native to North America.
29	Fabaceae; <i>Desmodium rotundifolium</i>											2 (Lata Pergola, Haldwani)		2	Medicinal	Native to North America
30	Actinidiaceae; <i>Actinidia deliciosa</i>	 Kiwi										2 (Lata Pergola, Haldwani)		2	Edible	Native to Southern China.
31	Vitaceae; <i>Cissus quadrangularis</i>	 Hadjod										30 (Aromatic Zone Lalkuan) 25 (Public Health Garden)		55	Medicinal	Native to tropical Asia, Arabia and much of Africa.

32	Dioscoreaceae; <i>Dioscorea alata</i>	 Water yam										478 (Patalthod)		478	Edible	Native to India.
33	Araceae; <i>Scindapsus officinalis</i>	 Gajapippali		Kalsi	6							6		6	Medicinal	Native to Southeast Asia and Java.
34	Rosaceae; <i>Rosa setigera</i>	 Jungli gulab											2 (Lata Pergola, Haldwani) 10 (Aromatic species project site, Lalkuan)	12	Medicinal	Native to Central and Eastern North America.
35	Apocynaceae; <i>Telosma cordata</i>	 Cowslip Creeper											2 (Lata Pergola, Haldwani)	2	Aromatic	Native to China and Indo China
36	Vitaceae; <i>Ampelopsis cantoniensis</i>												2 (Lata Pergola, Haldwani)	2	Medicinal	Native to China, Japan, Malaysia, Thailand, and Vietnam
37	Caprifoliaceae; <i>Lonicera periclymenum</i>	 Honeysuckle											2 (Lata Pergola, Haldwani); 10 (Aromatic Project Site Lalkuan)	12	Medicinal	Europe, North Africa and Turkey
38	Asteraceae; <i>Tarlmounia elliptica</i>	 Curtain Crepper											2 (Lata Pergola, Haldwani)	2	Medicinal	Native to India, Burma and Thailand

39	Solanaceae; <i>Lycium barbarum</i>	 Goji berry											2 (Lata Pergola, Haldwani)		2	Medicinal	Native to China
40	Fabaceae; <i>Wisteria frutescens</i>	 American wisteria											2 (Lata Pergola, Haldwani)		2	Medicinal	Native to North America
41	Combretaceae; <i>Combretum indicum</i>	 Madhu malti											2 (Lata Pergola, Haldwani); 10 (Aromatic Project Site Lalkuan); 10 (Public Health Garden)		22	Medicinal	Native to Asia
42	Apocynaceae; <i>Marsdenia floribunda</i>	 Madagascar Jasmine											2 (Lata Pergola, Haldwani)		2	Aromatic	Native to Madagascar
43	Acanthaceae; <i>Thunbergia mysorensis</i>	 Indian clock vine											2 (Lata Pergola, Haldwani)			Ornamental	Native to Southern tropical India
44	Bignoniaceae; <i>Campes radicans</i>	 Trumpet vine											2 (Lata Pergola, Haldwani)			Ornamental	Native in eastern and southern United States
45	Apocynaceae <i>Hoya longifolia</i>	 Wax plant												1(orchidarium at Gaja)	1	Ornamental	India (Asia nations)
46	Manispermaceae <i>Stephania elegans</i>			Patalhod	10							10			10	Medicinal	Native to Eastern and Southern Asia and Australia

		Ghindhadu															
47	Gesneriaceae <i>Aeschynanthus parviflorus</i>	 SikkimBlushwort		Patalthod	10							10			10	Ornamental	Himalayas
48	Smilacaceae <i>Smilex elegans</i>	 Elegant Smilax		Patalthod	10							10			10	Ornamental	Himalayas
49	Haemodaraceae <i>Hedera nepalensis</i>			Patalthod	10							10			10	Ornamental	Himalayas
50	Bignoniaceae; <i>Begonia venusta</i>	 Flamevine											2 (Lata Pergola, Haldwani)		2	Medicinal	Native of Brazil
51	Bignoniaceae; <i>Dolichandra unguis cati</i>	 Cat's claw											2 (Lata Pergola, Haldwani)		2	Medicinal	Native to the tropical dry forest of Central America, South America and the Caribbean
52	Fabaceae; <i>Amphicarpaea bracteata</i>	 American Hog Peanut											2 (Lata Pergola, Haldwani)		2	Edible	Native to North America.
53	Basellaceae; <i>Basella alba</i>	 Bharatiye Palak											2 (Lata Pergola, Haldwani)		2	Medicinal	Native to Africa and Asia

54	Apocynaceae; <i>Strophanthus gratus</i> (Wall. & Hook.)	 Climbing Oleander											10 (Aromatic Projct Site, Lalkuan)		10	Medicinal	Native to tropical Africa
55	Verbenaceae; <i>Petrea volubilis</i> var. <i>albiflora</i> (Stand l.)	 White Queen's Wreath Vine											10 (Aromatic Projct Site, Lalkuan)		10	Ornamental	Native to Tropical America
56	Apocynaceae; <i>Trachelospermum jasminoides</i> (Lindl.) Lem.	 Star jasmine		Lalkuan	5								10 (Aromatic Projct Site, Lalkuan)		15	Medicinal	Native to eastern and southeastern Asia
57	Convolvulaceae; <i>Porana volubilis</i> Burm. Fil.	 Horse Tail Creeper		Lalkuan	5										5	Aromatic	Indo China to Malesia
58	Fabaceae; <i>Clitoria fragrans</i> Small.	 Pigeon wings											10 (Aromatic Projct Site, Lalkuan)		10	Aromatic	Endemic to Central Florida
59	Apocynaceae; <i>Vallaris solanaceae</i> (Roth) Kuntze	 Bread flower											10 (Aromatic Projct Site, Lalkuan)		10	Medicinal	Native to India and Burma
60	Acanthaceae; <i>Thunbergia alata</i>	 Black eyed Susan vine											12 (Aromatic Projct Site, Lalkuan)		12	Medicinal	Native to Eastern Africa

61	Asteraceae; <i>Senecio confusus</i>	 Mexican Flame Vine											10 (Aromatic Projrct Site, Lalkuan)		10	Ornament al	Native to Mexico, Central America and the West Indies
62	Apocynaceae; <i>Chonemorpha fragrans</i>	 Frangipani Vine											6 (Aromatic Projrct Site, Lalkuan)		6	Medicinal	Native to China, India, Indonesia, Malaysia, Myanmar, Sri Lanka and Thailand.
63	Bignoniaceae; <i>Mansoa alliacea</i>	 Garlic Vine											10 (Aromatic Projrct Site, Lalkuan)		10	Medicinal	Native to Northern South America, and has spread to Central America and Brazil.
64	Fabaceae; <i>Abrus precatorius</i>	 Ratti		Lalkuan	5							5	10 (Public Health Garden)		15	Medicinal	Native to Asia and Australia
65	Oleaceae; <i>Jasminum dispersum</i>	 Pink Jasmine											10 (Aromatic Projrct Site, Lalkuan)		10	Medicinal	Native to West China and the Himalaya.
66	Cactaceae; <i>Pereskia aculeata</i>	 Barbados Gooseberry		+									12 (Aromatic Projrct Site, Lalkuan)		12	Medicinal	Native to tropical America.
67	Piperaceae; <i>Piper betle</i>	 Paan											12 (Aromatic Projrct Site, Lalkuan)		12	Medicinal	Originated in Southern and Southea st Asia.

68	Piperaceae; <i>Piper nigrum</i>												10 (Public Health Garden)		10	Medicinal	Native to present day South India,
		Kali mirch															
69	Annonaceae; <i>Artabotrys hexapetalus</i>												10 (Aromatic Projrct Site, Lalkuan)		10	Medicinal	Found in India through to Burma, southern China and Taiwan.
		Hari champa															
70	Malpighiaceae; <i>Hiptage benghalensis</i>												10 (Aromatic Projrct Site, Lalkuan)		10	Medicinal	Native to India, Southeast Asia, Taiwan, and the Philippines.
		Madhavi lata															
71	Oleaceae; <i>Jasminum polyanthum</i>												10 (Aromatic Projrct Site, Lalkuan)		10	Aromatic	Native to China and Myanmar.
		Pink Jasmine															
72	Passifloraceae : <i>Passiflora edulis</i>			Shyam pur	05							05	10 (Public Health Garden)		15	Edible and Medicinal	Native to southern Brazil through Paraguay and northern Argentina.
		Passion fruit(krishna kamal)															
73	Menispermaceae; <i>Stephania rotundifolia</i>							Devva n	03			03			03	Medicinal	Tropical to temperate Himalaya. India, China
		Genjadu															
74	Apocynaceae; <i>Gymnema sylvestre</i>			Lalkuan	2								10 (Public Health Garden)		12	Medicinal	Native to Asia, Africa and Australia.
		Gurmar															

75	Combretaceae: <i>Combretum roxburghii</i> Spreng.		Least Concern (IUCN)			Kalsi	15					15			15	Fooder	
		Kalsi piper															
76	Cucurbitaceae; <i>Trichosanthus tricuspidata</i>					Kalsi	25					25	20 (Gaja medicinal beds); 10 (Public Health Garden)		55	Medicinal	From Pakistan to Bhutan
		Indrayan															
77	Cucurbitaceae; <i>Cyclanthera pedata</i>												5(Gaja medicinal beds)		5	Edible fruit	Native to Endes
		Ram karela															
78	Vitaceae; <i>Vitis vulpina</i>												5 (Gaja medicinal beds)		5	Edible fruit	North America
		Jangli angur															
79	Cucurbitaceae; <i>Momordica dioica</i>												15 (Public Health Garden)		15	Medicina and vegetablel	Native to Southeast Asia
		Kakod															
80	Vitaceae; <i>Vitis vinifera L.</i>												15 (Public Health Garden) 10 (Food Forest)		25	Edible and Medicinal	Native to the Mediterranean region, Central Europe, southwestern Asia to northern Iran.
		Angoor															
81	Convolvulaceae; <i>Cuscuta reflexa</i>												10 (Public Health Garden)		10	Medicinal	Native to the Indian Subcontinent
		Amarbel															
82	Oleaceae; <i>Jasminum trifoliatum</i>												10 (Aromatic Project Site)		10	Perfumer y, Cosmatic	India, Nepal, Sri Lanka, Bhutan and the Andaman Islands
		Mysore Malliage															

83	Oleaceae; <i>Jasminum</i> <i>Grandiflorum</i>	 Jai											10 (Aromatic Project Site)		10	Perfumer y, Cosmatic	Native to South Asia, the Arabian peninsula, East and Northeast Africa and the Yunnan and Sichuan regions of China
84	Ranunculaceae; <i>Clematis</i> <i>ligusticifolia</i>	 Ranjai											10 (Aromatic Project Site)		10	Perfumer y, Cosmatic	Native to North America
85	Fabaceae; <i>Vigna radiata</i>	 Moong bean											50 (Food Forest)		50	Edible	Mainly cultivated in East, Southeast and S outh Asia.
86	Fabaceae; <i>Vigna mungo</i>	 Urad bean											30 (Food Forest)		30	Edible	Native to South Asia

- 1 Species is yet to be identified

VI. Cane species

Cane species are being conserved in Forest Research Range Haldwani:

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt./ Indian Biodiversity Portal)	Nursery						Experiment Site	Preservation Plot	Grand Total	Use	Native Region	
				Nursery Name											Total
				1		2		3							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1	Arecaceae; <i>Calamus tenuis</i>		Least Concern (IUCN); Lower risk (Renuka, 2001).							4 (Canetum, Haldwani)		4	Handicrafts and Edible	Native to India, Assam, Bangladesh, Bhutan, Cambodia, Laos, Myanmar, Thailand, Vietnam, Java and Sumatra	
2	Arecaceae; <i>Calamus viminalis</i>		Lower risk (Renuka, 2001).							4 (Canetum, Haldwani)		4	Timber	Native to India	
3	Arecaceae; <i>Calamus pseudotenuis</i>		Lower risk (Renuka, 2001).							4 (Canetum, Haldwani)		4	Timber and Edible	Native to India & Sri lanka	
4	Arecaceae; <i>Calamus longisetus</i>		Vulnerable (Renuka, 2001).							4 (Canetum, Haldwani)		4	Timber and Edible	Native to India	
5	Arecaceae; <i>Calamus erectus</i>									4 (Canetum, Haldwani)		4	Timber	Native to India	
6	Arecaceae; <i>Calamus inermis</i>		Critically endangered (Renuka, 2001).							4 (Canetum, Haldwani)		4	Timber	Native to India	

7	Arecaceae; <i>Calamus floribundus</i>										10 (Canetum) Haldwani		10	Timber	Native to India
8	Arecaceae; <i>Daemonorops jenkinsiana</i>										10 (Canetum) Haldwani		10	Timber and Edible	Native to India
9	Arecaceae; <i>Calamus rotang</i>										10 (Canetum) Haldwani		10	Timber and Medicinal	Native to India
10	Arecaceae; <i>Calamus shendurunii</i>										5 (Canetum) Haldwani		5	Furniture and handicraft industries	Endemic to Kerala and Tamil Nadu
11	Arecaceae; <i>Calamus travancoricus</i>										5 (Canetum) Haldwani		5	Medicinal	Native to India
12	Arecaceae; <i>Calamus hookerianus</i>										5 (Canetum) Haldwani		5	Timber	Native to India

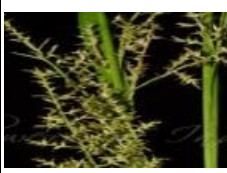
VII. Grass species

Grass species are being conserved at Forest Research Range Kalika.

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery								Total	Experiment Site	Preservation Plot	Grand Total	Use	Native Region
				Nursery Name													
				1		2		3		4							
				Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant						
1.	Poaceae; <i>Cymbopogon winterianus</i> Jowitt ex Bor	 Java Ghas										50 (Dwarson); 50 Bhujiyaghat (Aromatic plants); 8 (Aromatic species project site, Lalkuan)		108	Medicinal	Native to India.	
2.	Poaceae; <i>Cymbopogon martini</i> (Roxb.) W. Watson	 Rosa Ghas										25 (Dwarson); 50 Bhujiyaghat(Aromatic plants)		75	Medicinal	India and Indochina.	
3.	Poaceae; <i>Vetiver zizanoides</i> (L.) Nash	 Khas Ghas 		Patalthod	50						50	60 (Dwarson): 5(Grass Demostration Plot Shyampur); 50 Bhujiyaghat (Aromatic plants); 30 (Aromatic species project site, Lalkuan)		195	Medicinal and Aromatic	Native to India, Pakistan, Bangladesh and Sri Lanka.	
4	Poaceae; <i>Saccharum spontaneum</i> L.	 Kans Ghas										605 (Dwarson); 5 (Grass demonstration plot, Haldwani); 5 (Grass Demostration Plot, Shyampur)		615	Soil Conservation and Ornamental	Native to the Indian Subcontinent.	
5	Poaceae; <i>Festuca arundinacea</i> (Schreb.)	 Dolani Ghas										368 (Dwarson)		368	Soil Conservation	Native to Europe.	

6	Poaceae; <i>Lolium perrene</i> L.	 Rye Ghas											220 (Dwarson)		220	Soil Conservatio n	Europe, Asia and northern Africa.
7	Poaceae; <i>Bromus inermis</i> Leyss	 Brom Ghas											220 (Dwarson)		220	Soil Conservatio n and Fodder	Native to Europe.
8	Poaceae; <i>Pennisetum purpureum</i> Schumach.	 Napiner Ghas											719 (Dwarson)		719	Soil Conservatio n and fodder.	Native to the African grasslands.
9	Poaceae; <i>Megathyrsus maximus</i> (Jacq.) B.K. Simon & S.W.L.Jacobs	 Ginni Ghas		Dwarson	234	Kalsi	150					384	234 (Dwarson)	618		Soil Conservatio n and fodder.	Africa, Palestine and Yemen.
10	Poaceae; <i>Desmostachya bipinnata</i> (L.) Stapf	 Durva Ghas											335 (Dwarson); 5 (Grass Demonstration Plot, Shyampur) 15 (Public Health Garden)		356	Soil Conservatio n	Northern Africa, Tropical Asia, Myanmar, Nepal and Pakistan.
11	Poaceae; <i>Pennisetum clandestinum</i> Hochst. ex Chiov.	 Kikuyi Ghas											300 (Dwarson Nursery)		300	Soil Conservatio n and Fodder.	East Africa.
12	Poaceae; <i>Cynodon dactylon</i> (L.) Pers.	 Doob Ghas											264 (Dwarson)		264	Soil Conservatio, Fodder and Religious purpose	Eastern hemisphere.
13	Poaceae; <i>Dactylis glomerata</i> L.	 Gucchi Ghas											575 (Dwarson)		575	Soil Conservatio n and Fodder.	Native to Europe, Temperate Asia, and northern Africa.

14	Poaceae; <i>Heteropogon contortus</i> (L.) P. Beauv. ex Roem. & Schilt.	 Kumaria ghas											457 (Dwarson)		457	Soil Conservation and Fodder.	Southern Africa, southern Asia, Northern Australia and North America.
15	Poaceae; <i>Chrysopogon fulvus</i> (Spreng.) Chiov.	 Godiya Ghas											330 (Dwarson)		330	Soil Conservation and Fodder.	Tropical Asia and East Africa.
16	Poaceae; <i>Arundinella nepalensis</i> Trin.	 Nalika Ghas											237 (Dwarson)		237	Soil Conservation	Africa, E. Asia India, Nepal, S China.
17	Poaceae; <i>Setaria sphacelata</i> (Schum.)Stapf &C.E. Hubb.ex M.b.Moss	 Sita Ghas											200 (Dwarson)		200	Soil Conservation and Fodder.	Tropical and subtropical Africa.
18	Poaceae; <i>Cymbopogon citrates</i> (DC.)Saapf,	 Lemon Ghas	Rare (as per ENVIS center on floral diversity)	Kalsi	150	Shyampur	50	Kalika	620			820	264 (Dwarson); 100 (RET plot, Shyampur); 41 (Aromatic Grass zone, Haldwani); 19 (Aromatic species project site, Haldwani)		1244	Medicinal and Beverages.	Maritime Southeast Asia.
18A	Poaceae; <i>Cymbopogon citratus</i> var. Krishana	 Krishana grass											20(Aromatic species project site, Lalkuan)		20	Essential Oil	
19	Poaceae; <i>Thysanoleana maxima</i> (Roxb.) Kuntze	 Oass ghas											287 (Dwarson); 4(Grass demonstration plot, Haldwani); 10 (Grass Demonstration Plot, Shyampur		301	Soil Conservation	China, India, Myanmar, Nepal and Sri Lanka.

20	Poaceae; <i>Agrostis stolonifera</i> L.	 Babila ghas	Least Concern (as per IUCN Red list of Threatened species)										280 (DwarsonNursery); 6 (Grass demonstation plot, Haldwani)		286	Soil Conservatio n and Biofilteratio n	Eurasia and Nort Africa.
21	Poaceae; <i>Eragrotis polsia</i> (L.)P. Beauv.	 Love Ghas											735 (Dwarson Nursery)		735	Soil conservation .	Eurasia and Africa.
22	Poaceae; <i>Cortaderia selloana</i> (Schult. & Schult. f.) Asch. & Graebn.	 Pampas Ghas											15 (Dwarson Nursery)		15	Soil Conservatio n and Ornamental.	Southern America and Pampas region.
23	Cyperaceae; <i>Cyperus rotundus</i> L.	 Motha Ghas	Least Concern (as per IUCN Red list of Threatened species)										50 (Dwarson Nursery)		50	Medicinal	Africa, Southern and Central Europe and Southern Asia.
24	Poaceae; <i>Spartina pectinate</i> Bosc ex Link	 Piary ghas											50 (Dwarson Nursery)		50	Soil Conservatio n	North America, including Central and Eastern Canada.
25	Cyperaceae <i>Carex cruciata</i> Wahl.	 Kans Ghas											30 (Dwarson Nursery)		30	Soil Conservatio n	India, China, Nepal, Japan, Tibet and Myanmar.
26	Poaceae; <i>Miscanthus nepalensis</i> (Trinius) Hackel	 Fairy Ghas		Patalthod	100								35 (Dwarson Nursery)		135	Soil Conservatio n and Ornamental	Himalayas
27	Poaceae; <i>Muhlenbergia lindhmeri</i> Hitchc.	 Muhali Ghas											45 (Dwarson Nursery)		45	Soil Conservatio n and Ornamental	North America, northern Mexico and Texas.

28	Poaceae; <i>Setaria pumila</i> (Poir.) Roem. & Schult.	 Pigeon Ghas											60 (Dwarson Nursery)		60	Soil Conservation	Native to Europe, but it is known throughout the world as a common weed.
29	Poaceae; <i>Paspalum dilatatum</i> Poir.	 Dalis Ghas											55 (Dwarson Nursery)		55	Soil Conservation	Native to Brazil and Argentina.
30	Poaceae; <i>Panicum virgatum</i> L.	 Panic Ghas											18 (Dwarson)		18	Soil Conservation	Native to North America.
31	Poaceae; <i>Cymbopogon flexuosus</i> (Nees ex Steud.) W. Watson	 Lemon Krishna Ghas		Gaja	214						214		50 (Dwarson); 50 Bhujiyaghat (Aromatic plants); 66 (Aromatic species project site, Lalkuan); 5 (Public Health Garden)		390	Medicinal, Beverages and Perfumery	India, Sri Lanka, Myanmar and Thailand.
32	Poaceae; <i>Cymbopogon flexuosus</i> var. <i>kaveri</i>	 Kaveri nimbu grass											6(Aromatic species project site, Lalkuan)		6	Cooking	Developed by (CSIR CIMAP, Lucknow).
33	Poaceae; <i>Pennisetum orientale</i> L. C. Rich	 Bimausiya Ghas											60 (Dwarson); 6 (Grass demonstration plot, Haldwani)		66	Soil Conservation	North West Asia and North Africa.
34	Cyperaceae; <i>Cyperus eragrostis</i> Lam.	 Sage Ghas											50 (Dwarson)		50	Soil Conservation	Europe, South Africa, North America and Himalaya.
35	Poaceae; <i>Saccharum arundinaceum</i> Retz	 Kans Ghas											8 (Dwarson)		8	Soil Conservation	India, Myanmar, Sri Lanka and Thailand.

36	Poaceae; <i>Elucine indica</i> (L.) Gaertn	 Piraliya Ghas											45 (Dwarson) 10(Grass demonstation plot, Haldwani)		55	Soil Conservatio n and Edible	Distributed throughout the warmer areas of the world.
37	Poaceae; <i>Paspalum vaginatum</i> Sm.	 Salam ghas											60 (Dwarson)		60	Soil Conservatio n	Native to the Americas.
38	Cyperaceae; <i>Cyperus esculentus</i> L.	 Nut Ghas											40 (Dwarson)		40	Soil Conservatio n	Indian Subcontinent
39	Poaceae; <i>Agrostis idahoensis</i> Nash Syn. <i>A. tenuis</i> Sibth.	 Brant Ghas											30 (Dwarson)		30	Soil Conservatio n	Europe and parts of Western and Central Asia
40	Poaceae; <i>Erianthus giganteum</i> (Walter) P.Beauv	 Plum Ghas											20 (Dwarson)		20	Soil Conservatio n and Ornamental	New York, Kentucky, Florida.
41	Poaceae; <i>Tripsacum dactyloides</i> (L.) L.	 Fakachi Ghas											60 (Dwarso)		60	Soil Conservatio n	Eastern United States to northern South America
42	Poaceae; <i>Sorgham sp.</i>	 Chari Ghas											500 (Dwarson)		500	Fodder and Biofuels	
43	Cyperaceae; <i>Eriophorum comosum</i> (Wall.) Nees.												70 (Dwarson)		70	Soil Conservatio n	India, Nepal, China, Vietnam and Pakistan

44	Poaceae; <i>Spartina cynosuroides</i> (L.) Roth	 Big cordgrass		Kalsi	70							70			70	Forage	East Coast and Gulf Coast of the United States of America
45	Poaceae; <i>Phalaris arundinacea</i> L.	 Reed canary grass	Least Concern (IUCN)										5 (Grass Demonstration Plot, Shyampur)		5	Ornamental and medicinal	Europe, Asia and Africa
46	Poaceae; <i>Saccharum bengalense</i> Retz.	 Sarkanda											5 (Grass Demonstration Plot, Shyampur)		5	Fodder	Northern India, Afghanistan, Pakistan and Iran
47	Cyperaceae; <i>Cyperus scarious</i> R. Br.	 Nagar Motha											5 (Grass Demonstration Plot, Shyampur) 15 (Public Health Garden)		20	Medicinal	Native to India's Madhya Pradesh. One of the most invasive weeds, world wide distribution
48	Poaceae; <i>Coix lacryma jobi</i> L.	 Vajanti											5 (Grass Demonstration Plot, Shyampur)		5	Medicinal	Southeast Asia
49	Poaceae; <i>Eulaliopsis binata</i> (Retz.) C.E.Hubb.	 Bhabar grass											5 (Grass Demonstration Plot, Shyampur)		5	Ornamental and Paper Pulp	China, Nepal, India, Bhutan and Myanmar.
50	Poaceae; <i>Danthonia cachemyriana</i> Jaub. & Spac			Mandal	50							50			50	Soil conservation	India, Nepal China and Pakistan.
51	Poaceae; <i>Dactylis glomerata</i> L.												20 (Grass demonstration plot, Haldwani)		20	Soil Conservation and Fodder	Europe, temperate Asia and Northern Africa.

52	Poaceae; <i>Cymbopogon nardus</i> (L.) Rendle	 Citrolenna Ghas										22 (Aromatic grass zone, Haldwani); 10 (Aromatic Project Site)		32	Aromatic	Tropical Asia
53	Poaceae; <i>Cymbopogon schoenanthus</i> Spreng.	 Rosa grass										50(Aromatic species project site, Lalkuan)		50	Medicinal	Southern Asia and Northern Africa.
54	Poaceae; <i>Apluda mutica</i>	 Bhangura grass													Fodder	Native to Asia
55	Unidentified			Dwarson	75									75		
56	Unidentified			Dwarson	20									20		
57	Unidentified			Dwarson	70									70		
58	Poaceae; <i>Danthonia cachemyriana</i> Jaub. & Spac		–	Mandal	50						50			50	Soil Conservation	India, Nepal China and Pakist
59	Poaceae; <i>Crysopogon gryllus</i>	 Salam Ghass		Patalthod	250						250			250	Fodder and House making	Native to India
60	Poaceae; <i>Thysanolaena maxima</i>	 Ons ghass		Patalthod	13						13			13	For broom making	Native to Asia

61	Poaceae; <i>Eragrostis unionlloides</i>	 Love grass		Patalthod	100							100			100	Fodder	Native to Asia
62	Poaceae; <i>Erinthus rufipilus</i>			Patalthod	100							100			100	Fodder	Native to Asia
63	Poaceae; <i>Typha elephantina</i>												5 (Grass Demostration Plot, Shyampur); 2 Aquatic Demonstraruin Area (Haldwani)		7	Medicinal	Native range is Sahara to China
64	Cyperaceae; <i>Schoenoplectus lateralis</i> Roxb. (Sedge)												20 (Dwarson)		20	Soil Conservatio n	Europe to Central Siberia
65	Poaceae ; <i>Miscanthus sinensis</i> (Andersson)	 Zebra grass											5 (Dwarson)		5	Ornamental	Native to eastern Asia throughout most of China, Japan, Taiwan and Korea
66	Poaceae; <i>Phalaris arundinacea</i> (L.)												10 (Dwarson)		10	Pollution control	Native to North America
67	Aspargaceae; <i>Ophiopogon planiscarpus</i> (Nakai)	 Mondo grass											10 (Dwarson)		10	Ornamental	Native to Japan.
68	Poaceae; <i>Imperata cylindrical</i> L.	 Cogon grass											20 (Dwarson)		20	Medicinal	Native to Asia, cogon grass (<i>Imperata cylindrica</i>) is common in the humid tropics and has spread to the warmer temperate zones worldwide.

69	Poaceae; <i>Pogonatherum crinitum</i> (Thunb)	 Komalromi											20 (Dwarson)		20	Soil Conservation	Native range is Madagascar, Tropical & Subtropical Asia to Marianas
70	Cyperaceae; <i>Fimbristylis dichotoma</i> (L)	 Ghueen											20 (Dwarson)		20	Soil Conservation	It is found in temperate to tropical regions worldwide
71	Cyperaceae; <i>Cyperus iria</i> (L)	 Motha											10 (Dwarson) 15 (Public Health Garden)		25	Medicinal	It is native of tropical Asia and later widespread in subtropical Asia.
72	Poaceae; <i>Dichanthium annulatum</i> (Forssk)	 Marvel grass											20 (Dwarson)		20	Soil Conservation	It is a tropical grass originally from North Africa and India.
73	Cyperaceae; <i>Carex orthinopoda</i> Willd.												15 (Dwarson)		15	Ornamental	Its native range is Europe to Turkey
74	Cyperaceae; <i>Isolepis cernua</i> (Vahl) Roem & Schult	 Iso lapses grass											4 (Dwarson)		4	Ornamental	Native to many regions of the world, including parts of Australasia, Eurasia, Africa, and North and South America
75	Cyperaceae; <i>Cyperus compressus</i> L.												10 (Dwarson)		10	Medicinal	It is native of tropical Asia and later widespread in subtropical Asia.
76.	Poaceae; <i>Echinola colona</i> L.												8 (Dwarson)		8	Soil Conservation	It is Native to Tropical and Subtropical Asia

77	Poaceae; <i>Alloteropsis cimicina</i> C.presl	 Summer grass											20 (Dwarson)		20	Soil Conservation	It is Native to Tropical and Subtropical Asia
78.	Unidentified												20 (Dwarson)		20		
79.	Poaceae; <i>Cymbopogon distans</i> Spreng.												20 (Dwarson)		20	Soil Conservation	It is native to Warm Temperate and subtropical Asia.
80.	Unidentified												10 (Dwarson)		10		
81.	Poaceae; <i>Sporobolus indicus</i> (L)	 Smut grass											20 (Dwarson)		20	Soil Conservation	Native from Columbia.
82.	Poaceae; <i>Eulaliopsis binata</i> (Retz.) C.E Hubb												25 (Dwarson)		25	Soil Conservation	Native range is Afghanistan to China.
83.	Poaceae; <i>Panicum grande</i>	 Panicum											10 (Dwarson)		10	Soil Conservation	Native from tropical Regions
84.	Poaceae; <i>Bromus arvensis</i> L.	 Brome grass											10 (Dwarson)		10	Soil Conservation	Native to Southern and Central Europe.
85.	Poaceae; <i>Eleusine aegyptiaca</i> L.	 Crowfoot grass		Haldwan i	10							10			10	Medicinal	Native to Africa

86.	Poaceae; <i>Aristida cyanantha</i> Steud.	 Lampa grass											10 (Dwarson)		10	Soil Conservatio n	Native Afghanistan to Nepal.
87.	Poaceae; <i>Sorghum halepense</i> (L)	 Jhonsan grass											12 (Dwarson)		12	Soil Conservatio n and Fooder	Native to Mediterranean Region.
88.	Poaceae; <i>Neyraudia arundinacea</i> (L)												10 (Dwarson)		10	Soil Conservatio n	Native to Subtropical Asia.
89.	Poaceae; <i>Chrysopogon gryllus</i> (L)												20 (Dwarson)		20	Soil Conservatio n	Native to Europe and Tropical, Temperate Asia.
90	Poaceae; <i>Triticum aestivum</i>	 Gehu											50 (Dwarson)		100	Edible	
91	Poaceae; <i>Zea mays</i>	 Makka											50 (Dwarson)		50	Edible	Mexico & Central America
92	Poaceae; <i>Dendrocalamu s spp.</i>	 Bans											10 (Dwarson)		10	House frames	Native to Southeast Asia
93	Poaceae; <i>Eluscine indica</i>												50 (Dwarson)		50	Edible	

94	Poaceae; <i>Oryza sariva</i>	 Dhan/ Rice											50 (Dwarson)		50	Edible	
95	Poaceae; <i>Hordeum vulgare</i>	 Jau/ Barley											50 (Dwarson)		50	Edible/ Religious	Middle East
96	Poaceae; <i>Echnochola esculenta</i>	 Madira											50 (Dwarson)		50	Edible	
97	Poaceae; <i>Cymbopgon spp. Var. Kaveri</i>												50 (Dwarson)		50	Medicinal	
98	-----												10 (Dwarson)		10		
99	Poaceae; <i>Muhlenbergia duthieana</i>												10 (Dwarson)		10		
100	Poaceae; <i>Arundinella setosa</i>												10 (Dwarson)		10	Fooder/ soil conservation	Tropical and subtropical Asia to N.Australia.
101	Poaceae; <i>Eullalia mollis</i>												20 (Dwarson)		20	Ornamental.	Himalaya to Tibet

102	Unidentified												10 (Dwarson)		10		
103	Unidentified												10 (Dwarson)		10		
104	Unidentified												10 (Dwarson)		10		
105	Unidentified												20 (Dwarson)		20		
106	Unidentified												10 (Dwarson)		10		
107	Poaceae; Saccharum rufipilum	 Gulabi kans	-	Patalthod	50						50	50			50	Medicinal/ Aromatic	Native to India, Pakistan, Bangladesh and Sri Lanka

- 13 Species are yet to be identified

VIII. Orchid Species

Orchid Species are being conserved at Lumti (Pithoragarh Range), Gaja (Jeolikote Range) and Mandal (Gopeshwar Range).

S.No.	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt./ Indian Biodiversity Portal)	Nursery								Experiment Site	Preservation Plot	Grand Total	Use	Native Region	
				Nursery Name													Total
				1		2		3		4							
				Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant						
1.	Orchidaceae ; <i>Calanthe plantaginea</i> Lind			Mandal	20							20			20	Ornamental	Western and Eastern Himalayas (India), Pakistan, Nepal and China.
2.	Orchidaceae; <i>Bulbophyllum cariniflorum</i> Reichb.f.		Least concern (IUCN Red List)	Mandal	2							2			2	Ornamental	Western Himalayas (India), Pakistan, Nepal, China and Japan
3.	Orchidaceae; <i>Calanthe tricarinata</i> Lindl.	 Syoru	Comes under Appendix II of CITES.	Mandal	10	Patalthod	30	Devvan	03			43	50 (Trishula comp.19 B K.W.L.D)		93	Medicinal	Western Himalayas (India), Pakistan, Nepal and China
4.	Orchidaceae; <i>Coelogyne cristata</i> Lindl	 Gongya	Comes under Appendix II of CITES, Threatened(ENVIS)	Mandal	25							25	200 (Orchid In situ Conservation cum demo plot Pithoragrah); 5 orchidarium, Gaja		255	Medicinal	Western and Eastern Himalayas (India), Nepal, Bhutan and China
5.	Orchidaceae; <i>Coelogyne stricta</i> (D. Don) Schltr.		Comes under Appendix II of CITES	Mandal	20							20	Multiple (Khalla van panchayat); 250(Orchid In situ Conservation cum demo plot Pithoragrah)		270	Ornamental	Western and Eastern Himalayas (India), Nepal and Myanmar.
6.	Orchidaceae ; <i>Cymbidium iridioides</i> D.Don	 Iris Orchid	Comes under Appendix II of CITES	Mandal	20	Tangsa	10					30	Multiple (Khalla van panchayat) 50 (Orchid In sit Conservation cum demo Plot ,Pithoragrah); 4 (Orchidarium, Haldwani)		84	Ornamental	Western Himalayas (India), Bhutan, Nepal, and Eastern Himalayas.

7.	Orchidaceae; <i>Dendrobium amoenum</i> Wall. ex Lindl.		Comes under Appendix II of CITES	Mandal	30	Dwarson	5	Shyampur	05			40	50(Orchid In situ Conservation cum demonstration plot, Pithoragrah); 2 (Orchidium, Shyampur)		92	Ornamental	Western Himalayas (India), Bhutan, Nepal and Bangladesh.
8.	Orchidaceae; <i>Dendrobium fimbriatum</i> Hook. Syn. <i>D. normale</i> Falc.		Indeterminate (ENVIS Endemic and Threatened plant Taxa of India); Comes under Appendix II of CITES	Mandal	30							30	Multiple (Khalla van panchayat) 50(Orchid In situ Conservation cum demonstration plot Pithoragrah)		80	Ornamental	Endemic Flowernig Plants of Uttarakhand (A Checklist) B.P. Uniyal.
9.	Orchidaceae; <i>Eria alba</i> Lindl.		Comes under Appendix II of CITES	Mandal	20							20	100 (Orchid In situ Conservation cum demonstration plot, Pithoragarh)		120	Ornamental	Western Himalayas (India), Nepal and Bhutan.
10.	Orchidaceae; <i>Eria spicata</i> (D. Don) Hand. Mazz.			Mandal	15	Tangsa	4	Dwarson	5			24	Multiple (Khalla van panchayat)		24	Ornamental	Western Himalayas (India), Vietnam, Laos, Nepal and China.
11.	Orchidaceae; <i>Goodyera repens</i> (L.) R. Br.	 Girwara		Mandal	6	Patalthod	30	Devvan	05			41	20 (Gaja) Orchidarium		61	Medicinal	Western and Eastern Himalayas (India), Nepal, Pakistan and China.
12.	Orchidaceae; <i>Habenaria intermedia</i> D.Don	 Riddhi	Comes under Appendix II of CITES ; Collection absolutely Prohibited by Uttarakhand Goverment	Mandal	4	Devvan	10	Sariatatal	10			24	50(Ashtwarga species demo plot, Harkot, Munsyari); 40 (Orchidarium, Gaja)		114	Medicinal	Western Himalayas (India), Nepal and China.
13.	Orchidaceae; <i>Kingidium taenialis</i> (Lindl.) P.F.Hunt			Mandal	1							1			1	Ornamental	Western Himalayas (India), Nepal and Myanmar.

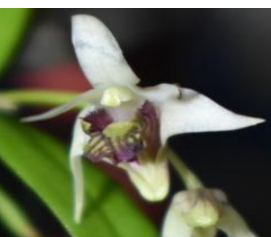
14.	Orchidaceae; <i>Malaxis acuminata</i> D. Don	 Jeevak	Comes under Appendix II of CITES ; Collection absolutely Prohibited by Uttarakhand Government	Mandal	35							35	50(Ashtwarga spcies demo plot, Harkot, Munsyari); 20 (Orchidarium, Gaja)		105	Medicinal	Western and Eastern Himalayas (India), Nepal, China, Thailand and Myanmar.
15.	Orchidaceae; <i>Malaxis muscifera</i> (Lindl.) Kuntze	 Rishbhak	Vulnearable (IUCN) ; Comes under Appendix II of CITES; Collection absolutely Prohibited by Uttarakhand Government	Mandal	2	Dwarson	5	Devva n	03			10	50(Ashtwarga spcies demo plot, Harkot, Munsyari)		55	Medicinal	Western and Eastern Himalayas (India), Nepal and Pakistan.
16.	Orchidaceae; <i>Neottia listeroides</i> Lindl.			Mandal	3							3			3	Ornamenta l	Western and Eastern Himalayas (India).
17.	Orchidaceae; <i>Pholidota articulata</i> Lindl.	 Jeevanti	Comes under Appendix II of CITES	Mandal	40	Tangsa	20					60	100(Orchid In situ Conservation cum demonstration plot, Munsyari); 5(Gaja) Orchidarium; 4 (Orchidarium, Haldwani) 5 (Public Health Garden)		174	Medicinal	Western and Eastern Himalayas (India), China, Myanmar and Malayasia.
18.	Orchidaceae; <i>Habenaria edgeworthii</i> (Hook.f. ex Collett) R.K.Gupta	 Viriddhi	Collection absolutely Prohibited by Uttarakhand Government	Mandal	10	Devvan	10	Sariyat aal	10			30	40 (Orchidarium, Gaja)		70	Medicinal	Western Himalayas (India), Nepal and Pakistan.
19.	Orchidaceae; <i>Satyrium nepalense</i> (Lindl.) Hook.f.	 Salam mishri	Comes under Appendix II of CITES ; Collection absolutely Prohibited by Uttarakhand Government	Mandal	55	Patalhod	5	Devva n	02	Sariyat aal	10	72	50 (Orchidarium, Gaja)		122	Medicinal	Western and Eastern Himalayas (India), China, Myanmar and Nepal.
20.	Orchidaceae; <i>Thunia alba</i> (Lindl.)Rchb. f.		Comes under Appendix II of CITES	Mandal	5							5	50 (Orchid In situ Conservation cum demonstration plot); 2 (Orchidarium, Gaja)		57	Ornamenta l	Western Himalayas (India), Nepal and China.

21.	Orchidaceae; <i>Malaxis purpureum</i> (Lindl)Kuntze			Mandal	15							15			15	Ornamenta 1	Western Himalayas (India).
22.	Orchidaceae; <i>Habenaria stenopetala</i> Lindl.			Mandal	3							3			3	Ornamenta 1	Western Himalayas (India).
23.	Orchidaceae; <i>Platanthera cleavigera</i> Lindl.		Comes under Appendix II of CITES	Mandal	1	Patalthod	5					6			6	Ornamenta 1	Western Himalayas (India).
24.	Orchidaceae; <i>Bulbophyllum umbellatum</i> Lindl.			Mandal	30							30			30	Ornamenta 1	Western Himalayas (India).
25.	Orchidaceae; <i>Oreorchis indica</i> (Lindl.) Hook. f.		Indeterminate (ENVIS Endemic and Threatened plant Taxa of India)	Mandal	3							3			3	Ornamenta 1	Western Himalayas (India), Nepal, China and Taiwan.
26.	Orchidaceae; <i>Luisia trichorhiza</i> (Hook.) Blume		Comes under Appendix II of CITES	Mandal	20							20	50(Orchid In situ Conservation cum demonstration plot)		70	Ornamenta 1	Western Himalayas (India).
27.	Orchidaceae; <i>Vanda cristata</i> Linn.			Mandal	8							8	50 (Orchid In situ Conservation cum demonstration plot); 2 (Orchidarium, Haldwani); 5 (Orchidarium, Gaja)		65	Ornamenta 1	Western Himalayas (India)
28.	Orchidaceae; <i>Habenaria aitchisonii</i> Rchb. f.			Mandal	6							6			6	Ornamenta 1	Western and Eastern Himalayas (India), and China.

29.	Orchidaceae; <i>Habenaria marginata</i> Colebr.			Mandal	4							4			4	Medicinal	Western and Eastern Himalaya (India), China and Yunnan.
		Haldya – Jari															
30.	Orchidaceae; <i>Acampe rigida</i> (Buch. Ham. ex Sm.) P.F.Hunt		Comes under Appendix II of CITES										50 (Orchid In situ Conservation cum demonstration plot)		50	Ornamental and Medicinal.	Indian subcontinent
31.	Orchidaceae; <i>Aerides odorata</i> Lour.		Endangered (IUCN Red List 3.1); Comes under Appendix II of CITES										50 (Orchid In situ Conservation cum demonstration plot); 4 (Orchidarium, Gaja)		54	Ornamental and Aromatic.	Western and Eastern Himalayas (India), Nepal and Bangladesh.
32.	Orchidaceae; <i>Herminium sp</i>		Comes under Appendix II of CITES	Patalthod	5							5			5	Medicinal	Western Himalayas
33.	Orchidaceae; <i>Liparis caespitosa</i> (Lam)Lindl.		Comes under Appendix II of CITES	Mandal	5								10 (Khalla Van Panchayat)		15	Ornamental	Africa, Himalayas and Southeast Asia.
34.	Orchidaceae; <i>Oberonia pachyrachis</i> Reichb.f. ex Hook. f.		Comes under Appendix II of CITES	Mandal	8								25(Orchid In situ Conservation cum demonstration plot, Pithoragarh); 12(Gaja Orchidarium); 2 (Orchidarium, Haldwani);4 (Khalla Van Panchayat)		51	Ornamental	Western Himalayas, Nepal, China Myanmar and Thailand.
35.	Orchidaceae; <i>Pholidota imbricata</i> Hook.		Comes under Appendix II of CITES	Mandal	10								3 Orchidarium (Haldwani); 5 (Khalla Van Panchayat)		18	Ornamental	Tropical and subtropical Asia to the southwest Pacific.

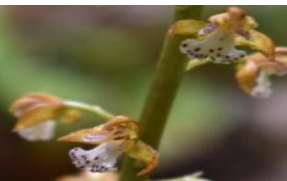
36.	Orchidaceae; <i>Rhynchostylis retusa</i> (L.) Blume	 	Comes under Appendix II of CITES	Mandal	1	Tangsa	2						4 Orchidarium (Haldwani); 1 (Khalla Van Panchayat) 2 (Public Health Garden); 2 (Orchidarium, Gaja)	12	Ornamenta 1	Indian subcontinent.
37.	Orchidaceae; <i>Spiranthus sinensis</i> (Pers.) Ames	 Spiranthus	Comes under Appendix II of CITES	Patalthod	5							5	50(RET demonstration plot, Harkot, Munsyari)	55	Medicinal	Western and Eastern Himalayas (India) Australia.
38.	Orchidaceae; <i>Phaius tankervilleae</i> (Banks) Blume	 Red cane orchid	Threatened Uttarakhand Biodiversity Board	Mandal	1	Tangsa	1					2	2 (RET plot, Shyampur), 10 (Haldwani) Orchidarium, Haldwani)	14	Medicinal	Asia and islands in the Pacific Ocean.
39.	Orchidaceae; <i>Dendrobium auriculatum</i> Ames & Quisumb												2(Gaja Orchidarium)	2	Ornamenta 1	Native to Philippines.
40.	Orchidaceae; <i>Dendrobium sp.</i>												5 (Orchidarium, Haldwani)	5	Ornamenta 1	
41.	Orchidaceae; <i>Paphiopedilum gratrixianum</i>												2(Orchidarium, Haldwani)	2	Ornamenta 1	Laos and Vietnam.
42.	Orchidaceae; <i>Vanda testacea</i> (Lindl.) Rchb.f.			Mandal	1							1	1 (Khalla van panchayat)	2	Medicinal	India , Myanmar
43.	Orchidaceae; <i>Liparis rostrata</i> Reichb.f.			Mandal	10	Devvan	03	Patalthod	5			18		18	Medicinal	India , Nepal and China

44.	Orchidaceae; <i>Calanthe puberula</i> Lindl.			Mandal	4							4			4	Medicinal	India , Pakistan , Nepal and China
45.	Orchidaceae; <i>Aerides rigida</i>												2 (Orchidarium, Haldwani)		2	Aromatic	Native to China, India, Assam, Bangladesh, Nepal, Sri Lanka, Andaman Islands, Cambodia, Laos, Myanmar, Thailand, Vietnam, Malaya, and the Philippines
46.	Orchidaceae; <i>Vanilla planifolia</i>												1 (Orchidarium, Haldwani) 2 (Public Health Garden)		3	Aromatic	Native to Mexico and Central America
47.	Orchidaceae; <i>Cymbidium erythraeum</i> Lindl.			Mandal	10							10			10	Ornamenta 1	India , Nepal
48.	Orchidaceae; <i>Pleione hookeriana</i> (Lindl.) Rollisson			Mandal	5							5			5	Medicinal	India , Nepal and Myanmar
49.	Orchidaceae; <i>Oreorchis micrantha</i> Lindl.			Mandal	3							3			3	Medicinal	India, Nepal and Bhutan
50.	Orchidaceae; <i>Zeuxine flava</i> (Wall. ex Lindl.)Trimen			Mandal	5							5			5	Ornamenta 1	India, Nepal and China

51.	Orchidaceae; <i>Goodyera procera</i> (Ker Gawl.) Hook			Mandal	10							10			10	Ornamenta l	Indo – Malaya to east Asia
52.	Orchidaceae; <i>Paphiopedilum hirsutissimum</i> (Lindl. ex Hook. f.)Stein			Mandal	2							2			2	Ornamenta l	Eastern Himalayas and Bhutan
53.	Orchidaceae; <i>Zygopetalum intermedium</i> Lodd. ex Lindl.			Mandal	2							2	1 (Orchidarium, Haldwani		3	Aromatic	Peru, Bolivia and Brazil
54.	Orchidaceae; <i>Dienia cylindrostachya</i> Lindl			Mandal	4							4	25 (Orchidarium, Gaja)		4	Ornamenta l	India , Nepal, China and Myanmar
55.	Orchidaceae; <i>Dendrobium monticola</i> P.F. Hunt & Su.			Mandal	10							10	10 (Khalla van panchayat)		20	Medicinal	Eastern Himalayas
56.	Orchidaceae; <i>Cypripedium cordigerum</i> D. Don	 Lady slipper orchid	Rare (Indian Biodiversity Portal) Comes under Appendix II of CITES	Mandal	8							8	4 (Mana van panchayat		12	Ornamenta l	Near Endemic Himalayan region
57.	Orchidaceae; <i>Peristylus goodyeroides</i> (D. Don) Lindl.			Mandal	4							4	5(Gaja) Orchidarium		9	Medicinal	India , Sri – Lanka and Myanmar

58.	Orchidaceae; <i>Dactylorhiza hatageriea</i>	 Salampanja	Comes under Appendix II of CITES	Sariatal	5	Devvan	01	Mandal	3			9			9	Medicinal	Near Endemic Himalayas from Pakistan to SE Tibet .
59.	Orchidaceae; <i>Habenaria edgeworthii</i> (Hook.f. ex Collett) R.K.Gupta	 Viriddhi	Collection absolutely Prohibited by Uttarakhand Government	Mandal	10							10	Mana Expriments 60		70	Medicinal	Western Himalaya(India),Nepal and Pakistan
60.	Orchidaceae; <i>Habenaria pectinata</i>	 Comb Habenaria		Patalthod	20							20	5 (Gaja) Orchidarium		25	Medicinal	Native range is Pakistan to China
61.	Orchidaceae; <i>Brachycorythis obcordata</i>	 Velvet orchid		Patalthod	20							20			20	Ornamenta l	Native range is Central India, Himalaya to Myanmar
62.	Orchidaceae; <i>Luisia tristis</i>	 Velvet orchid											2(Gaja) Orchidarium		2	Ornamenta l	Native to India.
63.	Orchidiaceae; <i>Habenaria ensifolia</i> Lindl.	 Sword Leaf Habenaria		Mandal	5							5			5	Orname ntal	Himalayas
64.	Orchidiaceae; <i>Peristylus duthiei</i> (Hook.f.) Deva & Naithani.			Mandal	4							4			4	Ornamenta l	Northwest Himalaya

65.	Orchidiaceae; <i>Herminium monorchis</i> (L.) R. Br.			Mandal	8						8			8	Ornamenta 1	Europe , Asia, France to Japan
66.	Orchidiaceae; <i>Pecteilis gigantean</i> Rafin	 Butterfly orchid	Threatened(State Biodiversity Board)	Mandal	2						2	3(Gaja) Orchidarium		5	Aromatic	Broad endemic to India
67.	Orchidaceae; <i>Cymbidium macrorhizon</i>		Comes under Appendix II of CITES	Patalthod	20						20			20	Ornamenta 1	Western Himalaya(India), Nepal and China
68.	Orchidaceae; <i>Diplomeris hirsuta</i>	 Snow Orchid	Comes under Appendix II of CITES Threatened (State Biodiversity Board); Vulnerable (Indian Biodiversity Portal)									2(Gaja) Orchidarium			Ornamenta 1	Endemic to Uttarakhand
69.	Orchidiaceae; <i>Pleione praecox</i> (Sm.) D. Don			Mandal	5						5			5	Ornamenta 1	West central Himalaya to China
70.	Orchidiaceae; <i>Bulbophyllum affine</i> Wall. ex Lindl.			Mandal	4						4	3 (Khalla van panchayat		7	Medicinal	West Central Himalaya to Nansei shoto
71.	Orchidiaceae; <i>Oberonia pyrifera</i> Lindl.			Mandal	2						2	3 (Khalla van panchayat		5	Ornamenta 1	Tropical Africa, southern Asia including India, China.

72.	Orchidiaceae; <i>Nervilia mackinnonii</i> Schltr.		Comes under Appendix II of CITES	Mandal	2							2			2	Ornamenta 1	Himalaya to China
73.	Orchidiaceae; <i>Platanthera stenantha</i> (J.D.Hooker) Soo			Mandal	2							2			2	Medicinal	Nepal to China
74.	Orchidiaceae; <i>Oreorachis petans</i> Lindl.		Comes under Appendix II of CITES	Mandal	3							3			3	Ornamenta 1	Eastern Asia
75.	Orchidiaceae; <i>Acampe papillosa</i> Lindl.		Comes under Appendix II of CITES	Mandal	1							1	1 (Khalla van panchayat 50(Orchid In situ Conservation cum demonstration plot)		52	Medicinal	Native to Eastern Himalayas.
76.	Orchidiaceae; <i>Bulbophyllum careyanum</i> (Hook) Spreng.		Comes under Appendix II of CITES	Mandal	5							5	10 (Khalla van panchayat100(Orchid In situ Conservation cum demonstration plot)		115	Ornamenta 1	Himalayas.
77.	Orchidiaceae; <i>Coelogyne ovalis</i> Lindl.		Comes under Appendix II of CITES	Mandal	3							4	4 (Khalla van panchayat200 (Orchid In situ Conservation cum demonstration plot)		207	Ornamenta 1	East Asia
78.	Orchidiaceae; <i>Eria lasiopetala</i> Ormerod		Comes under Appendix II of CITES	Mandal	5							5	5 (Khalla van panchayat 100 (Orchid In situ Conservation cum demonstration plot Pithoragarh)		110	Ornamenta 1	Bangladesh east to Hong kong and Southeast Asia.
79.	Orchidiaceae; <i>Flickingeria fugax</i> Seidenf.		Comes under Appendix II of CITES	Mandal	5							5	6 (Khalla van panchayat 50(Orchid In situ Conservation cum demonstration plot, Pithoragarh		61	Medicinal	Indian subcontinent.

80.	Orchidiaceae; <i>Liparis viridiflora</i> (Blume) Lindl.		Comes under Appendix II of CITES	Mandal	6							6	10 (Khalla van panchayat		16	Ornamenta l	Indian subcontinent to S. China.
81.	Orchidiaceae; <i>Oberonia ensiformis</i> (Smith) Lindl.		Comes under Appendix II of CITES	Mandal	1							1	2 (Khalla van panchayat); 2 (Orchidarium, Gaja)		5	Ornamenta l	Eastern Himalayas, Nepal .
82.	Orchidiaceae; <i>Aeridis multiflora</i> Roxb.		Comes under Appendix II of CITES	Mandal	5	Dwarson	5					10	10Khalla VP 50(Orchid In situ Conservation cum demonstration plot); 4 (Orchidarium, Gaja)		74	Orname ntal	Southeast Asia.
83.	Orchidiaceae; <i>Gastrochilus calceolaris</i> (Buch. Ham. ex Sm.) D. Don		Crirically endangered (IUCN)	Mandal	5							5	2 (Khalla Van Panchayat)		7	Orname ntal	Nepal, Bhutan, and China
84.	Orchidiaceae; <i>Cypredium himalicum</i> Rolfe.	 Himalayan Venus	Endangered (IUCN); Rare (ENVIS Endemic and Threatened plant Taxa of India) ; Rare (Indian Biodiversity Portal)	Mandal	4							4	12 Mana Van Panchayat		16	Orname ntal	Indian Himalayan region
85.	Orchidiaceae; <i>Dendrobium Sonia</i>												3 Orchidarium (Haldwami)		3	Ornamenta l	Native to Java, Sumatra, Thailand and Vietnam.
86.	Orchidiaceae; <i>Phalaenopsis amphotrite</i>												3 Orchidarium (Haldwami)		3	Ornamenta l	Native to Philippines

87.	Orchidiaceae; <i>Phalaenopsis</i> hybrid												3 Orchidarium (Haldwami)		3	Ornamental	
88.	Orchidiaceae; <i>Cypripedium</i> <i>elegans</i> Reichb.		IUCN red list Endangered Comes under Appendix II of CITES	Mandal	2							2			2	Ornamental	Near Endemic
89.	Orchidiaceae; <i>Calanthe</i> <i>alpine</i> Hook.f.ex Lindl		Rare Comes under Appendix II of CITES	Mandal	3							3			3	Ornamental	Himalayan region
90.	Orchidiaceae; <i>Gastrodia</i> <i>falconeri</i> D.L. Jones & M.A. Clem.		Rare Comes under Appendix II of CITES	Mandal	2							2			2	Medicinal	Indian Subcontinent
91.	Orchidiaceae; <i>Arachnis</i> <i>maggie Oei</i> “Yellow Ribbon”												3 Orchidarium (Haldwami)			Ornamental	
92.	Orchidiaceae; <i>Spathoglottis</i> <i>plicata</i>												3 Orchidarium (Haldwami)			Ornamental	
93.	Orchidiaceae; <i>Spathoglottis</i> <i>plicata</i> (Red)												3 Orchidarium (Haldwami)			Ornamental	

94.	Orchidiaceae; <i>Spathoglottis plicata</i> (Yellow)												3 Orchidarium (Haldwami)			Ornamental	
95.	Orchidiaceae; <i>Vanda miss Joaquim</i>												5 Orchidarium (Haldwami)			Ornamental	
96.	Orchidiaceae; <i>Vanda poepoe</i> 'Diane												5 Orchidarium (Haldwami)				
97.	Orchidiaceae; <i>Arundina graminifolia</i>												1(Gaja) Orchidarium; 5 Orchidarium (Haldwami)		6	Ornamental	Nepal, Bhutan, India, Myanmar, Thailand, Cambodia, Vietnam, Philippines, Guangdon, Hainan,
98.	Orchidaceae; <i>Herminium lanceum</i>												26(Gaja) Orchidarium		26		Europe, Asia to Japan and the Malay Archipelago
99.	Orchidaceae; <i>Eria globulifera</i>												5(Gaja) Orchidarium		5		Eastern Himalaya, Myanmar, Thai land, Cambodia, Laos and Vietnam.
100.	Orchidaceae; <i>Nervilia gammieana</i>												3(Gaja) Orchidarium		3		Pakistan to Himalaya.

101.	Orchidiaceae; <i>Gastrochilus acutifolius</i> (Lindl.) Kuntze		Comes under Appendix II of CITES	Mandal	2							2			2	Ornamental	Indian Subcontinent
102.	Orchidiaceae; <i>Calanthe mannii</i> Hook.f.		Rare Comes under Appendix II of CITES	Mandal	2							2			2	Ornamental	Indian Subcontinent
103.	Orchidiaceae; Cattleya Hybrid			Mandal	2							2			2	Ornamental	Sikkim
104.	Orchidiaceae; <i>Calanthe masuca</i> (D.Don) Lindl.		Comes under Appendix II of CITES	Mandal	5							5			5	Ornamental	North East
105.	Orchidiaceae; <i>Dendrobium densiflorum</i> Lindl.		Comes under Appendix II of CITES	Mandal	5							5			5	Ornamental	North East
106.	Orchidiaceae; <i>Dendrobium thyrsiflorum</i> Rchb.f. ex Andre		Comes under Appendix II of CITES	Mandal	6							6			6	Ornamental	North East

107.	Orchidiaceae; <i>Cymbidium devonianum</i> Paxton		Comes under Appendix II of CITES	Mandal	4							4			4	Ornamental	North East
108.	Orchidiaceae; <i>Oncidium</i> Hybrid Yellow			Mandal	8							8			8	Ornamental	North East
109.	Orchidiaceae; <i>Cattleya bowringiana</i> O. Brien		Comes under Appendix II of CITES	Mandal	2							2			2	Ornamental	Exotic
110.	Orchidaceae; <i>Vanda tessellata</i>												5 (Public Health Garden); 5 (Orchidarium, Haldwani)		15	Medicinal	Indian subcontinent to Indochina

- 2 species are yet to be identified

- IX. Fern species:

Fern species are being conserved mainly in Forest research ranges, Kalika, Gaja and Gopeshwar.

S. No	Famly; Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakh and Govt. / Indian Biodiversity Portal)	Nursery										Experiment Site	Preservati on Plot	Gran d Total	Use	Native Region	
				Nursery Name															Total
				1		2		3		4		5							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Cytheaceae; <i>Cyathea spinolosa</i> Wall. ex Hook.	 Flying spider monkey tree fern	Threatened species (as per ENVIS centre on Floral Diversity Hosted by Botanical Survey of India/ Threatened (State Biodiversity Board)	Mandal	10	Tangsa	15							25	4 (Kaligarh block – 17)		29	Ornamental	Pan endemic
2	Blechnaceae; <i>Woodwardia unigemmata</i> (Makino) Nakai			Mandal	1									1	2 (Kaligarh block – 17)		3	Soil and Moisture Conservation	Nativeto Western North America.
3	Pteridaceae; <i>Pteris cretica</i> Linn.	 Ribbon Fern		Mandal	10									10	10 (Kaligarh block – 17); 8 (Jurassic Park, Haldwani)		18	Medicinal and Manure	Native to Europe, Asia and Africa.
4	Dennstaedtiaceae; <i>Pteridium aquilinum</i> (L.) Kuhn.	 Eagle fern	Least Concern (IUCN)	Mandal	8									8	5 (Fern demonstrati on plot, Shyampur); 5 (Kaligarh block – 17)		18	Soil and Moisture Conservation	Native to India.
5	Pteridaceae; <i>Pteris wallichiana</i> Aghard.			Mandal	15									15			15	Soil and Moisture Conservation	Native to Himalayas.
6	Dryopteridoidea e; <i>Dryopteris wallichiana</i> (Spreng. L.) Hayland	 Basket fern		Mandal	6									6			6	Soil and Moisture Conservation	Native to Himalayas.

7	Osmundaceae; <i>Osmunda japonica</i> Thunmb.	 Royal Fern	Least Concern(IUCN)	Mandal	2								2			2	Soil and Moisture Conservation	Endemic to central and southern India.
8	Osmundaceae; <i>Osmunda claytoniana</i> (L.) Metz. & Rouhan	 Avrudh fern		Mandal	2								2			2	Soil and Moisture Conservation	Native to Eastern Asia and eastern North America, in the Eastern United States and Eastern Canada
9	Pteridaceae; <i>Pteris vittata</i> Linn.	 Ladder brake fern	Least Concern (IUCN) Least concern (as per Indian Biodiversity Portal)	Mandal	2	Tangsa	2	Shyampur	05				7	5 (Kaligarh block – 17); 5 (Fern demonstration plot); 5 Gaja (Fernery); 4 (Jurassic Park, Haldwani)	(50)Pangot	78	Ornamental	Indigenous to Asia, southern Europe, tropical Africa and Australia.
10	Dryopterideaceae; <i>Polystichum squarrosum</i> (D.Don) Fe.			Mandal	15								15	25 (Kaligarh block – 17); 4 Gaja (Fernery); 2 (Jurassic Park, Haldwani)	(50)Pangot	96	Medicinal and Ornamental	
11	Athyriaceae; <i>Diplazium esculentum</i> (Retz.) Sw.	 Lingura	Least Concern (IUCN) Least concern (as per Indian biodiversity portal)	Mandal	6								6	100 (Kaligarh block – 17); 4 Gaja(Fernery)	(50)Pangot	160	Edible and Medicinal	Native to Eastern and southeastern Asia.
12	Cryptogramma ceae; <i>Onychium contiguum</i> Wall. ex Hope			Mandal	6								6	25 (Kaligarh block – 17) 5 Gaja (Fernery)		36	Fodder and Manure	Native range is Pakistan to China and Indo China.
13	Thelypteridaceae; <i>Pseudocyclosorus spp.</i>			Mandal	8								8			8	Soil and Moisture Conservation	

14	Lycopodiaceae; <i>Huperzia pulcherrima</i> (Wall.ex Hook. & Grev.) T. Sen & U. Sen			Mandal	1									1			1	Soil and Moisture Conservation	Native to India and China.
15	Vittariaceae; <i>Vittaria flexuosa</i> Fee			Mandal	1									1			1	Soil and Moisture Conservation	
16	Lindsaeaceae; <i>Lindsaea spp.</i>			Mandal	8									8			8	Soil and Moisture Conservation	
17	Aspleniaceae; <i>Asplenium dalhousiae</i> Hook.	 Vishkanya													25 (Kaligarh block – 17); 10 Gaja (Fernery)	(25) Pangot	60	Medicinal	Native to northen Mexico and disjunction to the Himalaya
18	Adiantaceae; <i>Adiantum venustum</i> D.Don	 Himalayan Maidenhair Fern		Shyampur	05									05	10 (Kaligarh block – 17); 15 Gaja (Fernery); 5 (Jurassic Park, Haldwani); 5 (Public Health Garden)	(25) Pangot	65	Medicinal	Native to China and the Himalayas
19	Hemionitidaceae; <i>Anogramma leptophylla</i> (Linn.) Link.	 Annual fern													10 (Kaligarh block – 17)		10	Medicinal	Native to India, South America, Europe ,Russia , Iran and Mediterranean region
20	Sinopteridaceae ; <i>Chelianthus dubia</i> Hope	 Rock fern													20 (Kaligarh block – 17); 2Gaja(Fernery)		22	Ornamental	Native to India (East Himalayas), Nepal, Sri Lanka, China and Taiwan

21	Thelypteridaceae; <i>Christella arida</i> (D.Don) Holtt.														5 (Kaligarh block – 17)		5	Ornamental	Native to India (N nd W Himalayas), Nepal, Sri Lanka, China and Taiwan
22	Hemionitidaceae; <i>Coniogramme indica</i> Fee														25 (Kaligarh block – 17)		25	Ornamental	Native to India
23	Gleicheniaceae; <i>Dicranopteris linearis</i> Holttum														20 (Kaligarh block – 17)		20	Medicinal	Native to Hawaii
24	Dryopterideaceae; <i>Dryopteris edwardsii</i> Fraser – Jenk.	 Wood fern													25 (Kaligarh block – 17)		25	Ornamental	Native range is Pakistan to China (Yunnan), Taiwan.
25	Dryopterideaceae; <i>Dryopteris gamblei</i> (Hope)C.Chr.	 Wood fern													100 (Kaligarh block – 17)		100	Ornamental	
26	Dryopterideaceae; <i>Dryopteris nigropaleacea</i> (Fraser – Jenk.)Fraser – Jenk.	 Wood fern													100 (Kaligarh block – 17); 2Gaja(Fernery)	(50)Pangot	152	Ornamental	Endemic to parts of Afghanistan, Pakistan, Western Nepal, and Himachal Pradesh
27	Dryopterideaceae; <i>Dryopteris reductopinnata</i> Basu & Panigarhi	 Basket fern													2 (Kaligarh block – 17)		2	Ornamental	

28	Athyriaceae; <i>Gymnocarpium fedtschenkoanum</i> Pojark.	 Western oak fern													100 (Kaligarh block – 17)		100	Ornamental	Native range is Afghanistan to Central Asia and W. Nepal
29	Polypodiaceae; <i>Lepisorus excavatus</i> (Willd.) Ching.														10 (Kaligarh block – 17)		10	Ornamental	South Africa to central Africa
30	Polypodiaceae; <i>Microsorium membranaceum</i> (D. Don) Ching.	 Shield fern													8 (Kaligarh block – 17); 2Gaja(Fernery)	(10)Pangot	20	Medicinal	Native range is Tropical & Subtropical Asia
31	Thelypteridaceae; <i>Phegopteris connectilis</i> (Michx.) Watt.	 Long beech fern													100 (Kaligarh block – 17)		100	Ornamental	Native to Europe, Asia and North America.
32	Dryopterideaceae; <i>Polystichum obliquum</i> (D.Don) Moore														25 (Kaligarh block – 17); 3Gaja(Fernery)	(10)Pangot	38	Ornamental	Native to western North America
33	Dryopterideaceae; <i>Polystichum yunnanense</i> Christ														100 (Kaligarh block – 17)		100	Ornamental	Native range is Yemen, Afghanistan to China.
34	Polypodiaceae; <i>Pyrrosia costata</i> (Presl.ex Bedd.) Tagawa & Iwats														10 (Kaligarh block – 17)		10	Ornamental	
35	Polypodiaceae; <i>Phymatopteris ebenipes</i> (Hook.)Pic. Ser														10 (Kaligarh block – 17)		10	Ornamental	Native to India, Bhutan, China and Tibet.

36	Pteridaceae; <i>Pteris aspericaulis</i> Wall. ex Ag.	 Three coloured brake fern													100 (Kaligarh block – 17); 2Gaja(Fern ery)	(50)Pangot	152	Medicinal and Manure	Native to the Himalayas.
37	Tectariaceae; <i>Tectaria coadunata</i> (J. Smith) C. Chr.														10 (Kaligarh block – 17); 2Gaja(Fern ery) 2Gaja(Fern ery)		14	Medicinal	Native to Africa
38	Adiantaceae; <i>Adiantum philippense</i> Linn.	 Walking maidenhair fern													25 (Kaligarh block – 17); 5 (Fern demonstrati on plot)		30	Medicinal	Native to Asia and Africa
39	Adiantaceae; <i>Adiantum edgeworthii</i> Hook	 Mayurshikha													5 (Kaligarh block – 17); 15Gaja(Fer nery)	(50)Pangot	70	Medicinal	Native to Himalaya and China.
40	Dryopterideaceae; <i>Dryopteris lepidopoda</i> Hayata	 Sunset fern													5 (Kaligarh block – 17)		5	Ornamental	Native to India, Taiwan, and China.
41	Polypodiaceae; <i>Arthromeris himalayensis</i> Ching ex Mehra &Bir														2 (Kaligarh block – 17)		2	Medicinal	
42	Polypodiaceae; <i>Polypodiastrum argutum</i> (Wall. ex HooK.)ching														8 (Kaligarh block – 17)		8	Ornamental	Native range is Himalaya to S. China and Indo China

43	Aspleniaceae; <i>Asplenium nidus</i> Linn.	 Bird Nest fern													2(Kaligarh block – 17)		1	Ornamental	Native to tropical areas from Polynesia and Hawaii west to Southeast Asia, Australia, and Madagascar
44	Polypodiaceae; <i>Microsorium punctatum</i> (L.) Copel.	 Elkhorn fern/ Fish tail fern													10 (Kaligarh block – 17)		10	Medicinal	Native to Asia, Africa, Australia
45	Pteridaceae; <i>Pteris ensiformis</i> Burm.f.	 Silver lace fern													12 (Kaligarh block – 17)		12	Ornamental	Asia and the Pacific.
46	Nephrolepidace ae; <i>Nephrolepis sp.</i>	 Curly fern													10 (Kaligarh block – 17); 5 (Jurassic Park, Haldwani)		15	Ornamental	
47	Polypodiaceae; <i>Platycerium sp.</i>	 Staghorn fern													1 (Kaligarh block – 17)		1	Ornamental	
48	Gleicheniaceae; <i>Gleichenia gigantean</i> <i>Wall. ex Hook.</i>														5 (Kaligarh block – 17)		5	Ornamental	North East, India
49	Asparagaceae; <i>Asparagus setaceus</i> (Kunth) Jessop	 Common asparagus fern													4 (Fern demonstrati on plot, Shyampur); 5 (Kaligarh block – 17)		9	Ornamental	Native to Southern Africa & Asia
50	Ophioglossaceae ; <i>Helmeinthostach ys zeylanica</i>			Shyampur	20								20	5 (Fern demonstrati on plot, Shyampur) 8 (Public		33	Ornamental	Native to Southeastern Asia and Australia	

	(L.)Hook	Kamraj													Health Garden)				
51	Dryopterideaceae ; <i>Dryopteris filix mas</i> (L.) Schott	 Male fern		Shyampur	05									05	5 (Fern demonstration plot, Shyampur); 2 Gaja (Fernery); 2 Gaja (Fernery)	(25) Pangot	39	Ornamental	Native to Europe, Asia, and North America
52	Dryopteridaceae; <i>Polystichum longipaleatum</i> Christ														4 Gaja (Fernery)	(50)Pangot	54	Ornamental	Native to Uttarakhnad and Eastern India
53	Pteridaceae; <i>Coniogramme intermedia</i> Shishi														5 Gaja (Fernery)	(50)Pangot	55	Medicinal and edible	Native to India
54	Pteridaceae; <i>Pteris excelsa</i> Gaudich.														3 Gaja (Fernery)	(50)Pangot	53	Ornamental	Native to Kashmir , East India and South India
55	Adiantaceae; <i>Adiantum capillus var. veneris</i> Linn.		Least concern (IUCN)												15 Gaja (Fernery)	(50)Pangot	65	Medicinal	Native to United States
56	Adiantaceae; <i>Adiantum incisum</i> Forssk.	 Hansraj													15Gaja (Fernery) 10 (Public Health Garden)	(50)Pangot	75	Medicinal	Native to India, South America and Mexico
57	Polypodiaceae; <i>Phymatopteris quasidivericata</i> (Hayata)Pic. ser														2Gaja (Fernery)	(12)Pangot	14	Ornamental	Native to India, China and Tibet

58	Athyriaceae; <i>Athyrium tenuifrons</i>														5Gaja (Fernery)	(50)Pangot	55	Ornamental	Native to India, China, Nepal, Myanmar and Africa
59	Equisetaceae; <i>Equisetum sp.</i>	 Horsetail													6(Jurassic Park, Haldwani)		6	Medicinal	
60	Polypodiaceae; <i>Pyrrosia sp.</i>														2 (Jurassic Park, Haldwani)		2	Ornamental	
61	Nephrolepidaceae; <i>Nephrolepis biserrata</i> (Sw.) Schott	 Giant sword fern													2 (Kaligarh block – 17)		2	Medicinal	
62	Nephrolepidaceae; <i>Nephrolepis tuberosa</i>	 fishbone fern													2 (Kaligarh block – 17)		2	Ornamental	Native to Northern Australia and Asia.
63	Athyriaceae; <i>Athyrium pectinatum</i> (Wall.ex Hope) Pres	 Lady fern													100 (Kaligarh block – 17)		100	Medicinal	Native to N. Indian Subcontinent to SE. Tibet
64	Nephrolepidaceae; <i>Nephrolepis exaltata</i> (L.) Scott	 Boston fern		Shyampur	05									05	2 (Kaligarh block – 17); 5 (Fern demonstration plot, Shyampur)		12	Ornamental	Native to tropical regions throughout the world.
65	Nephrolepidaceae; <i>Nephrolepis exaltata 'Aurea'</i> Cultivar	 Golden fern													2 (Kaligarh block – 17)		2	Ornamental	

66	Aspleniaceae; <i>Asplenium victori</i>	 Victorian bird nest fern													1 (Kaligarh block – 17)		1	Ornamental	Native to the temperate regions of Eastern Asia
67	Davalliaceae; <i>Davallia trichomoides</i> Blume	 Black rabbit foot fern													2 (Kaligarh block – 17)		2	Ornamental	Native to Eastern Asia, Japan.
68	Selaginellaceae; <i>Selaginella kraussiana</i> (Kunze) a. Braun	 Frosty fern													10 (Kaligarh block – 17)		10	Ornamental	Native to Canary Islands, and parts of south and east Africa.
69	Dryopteridaceae ; <i>Polytichum</i> sp.														3 (Kaligarh block – 17)		3	Ornamental	
70	Unidentified														4 (Kaligarh block – 17)		4		
71	Unidentified														10 (Kaligarh block – 17)		10		
72	Unidentified														10 (Kaligarh block – 17)		10		
73	Unidentified														5 (Kaligarh block – 17)		5		
74	Unidentified														6 (Kaligarh block – 17)		6		
75	Oleandraceae; <i>Oleandra wallichii</i> (Hook.) Pres														4 (Kaligarh block – 17)		4	Medicinal	–

76	Polypodiaceae; <i>Phlebodium aureum</i> (L.) J. Sm.														2 (Kaligarh block – 17)		2	Ornamental	–
77	Polypodiaceae; <i>Polypodium vulgare</i> L.														10 (Kaligarh block – 17)		10	Ornamental	–
78	Athyriaceae; <i>Deparia petersenii</i> (Kunze)M. Kato														5 (Kaligarh block – 17)		5	Ornamental	–
79	Polypodiaceae ; <i>Drynaria mollis</i> Bedd.			Mandal	2									2			2		Native to India , Nepal, Bhutan, China and Tibet
80	Dryopteridaceae; <i>Cyrtomium caryotideum</i> (Wall.) Presl.			Mandal	1									1			1		Native to India , Nepal, Pakistan, Bhutan, China and Tibet
81	Aspleniaceae ; <i>Asplenium tenuicaule</i> Hayata			Tangsa	5									5			5		Native to India , Nepal, Bhutan, China and Tibet
82	Aspleniaceae ; <i>Asplenium ensiforme</i> Wall. ex Hook. & Grev.			Mandal	3									3			3	Dye	Native to India , Africa, China and Japan
83	Nephrolepidaceae; <i>Nephrolepis auriculata</i> (L.) Trimen			Mandal	2									2			2	Medicinal	Native to India , Nepal, Bhutan, China and Myanmar
84	Marsileaceae; <i>Marsilea quadrifolia</i> L.			Mandal	10									10			10	Medicinal	Native to India , Nepal and China

85	Davalliaceae; <i>Davallia spp.</i>														10 (Kaligarh block – 17)		10	Ornamental	
86	Athyriaceae; <i>Athyrium filix femina</i> (L.) Roth	 Lady Fern													10 (Kaligarh block – 17)		10	Ornamental	Native to the continental US and Alaska
87	Pteridaceae; <i>Pteris longifolia</i> L.	 Longleaf brake													10 (Kaligarh block – 17)		10	Ornamental	Native ro Central America
88	Polypodiaceae; <i>Polypodium virginianum</i> L.	 Rock rcap fern													5 (Kaligarh block – 17)		5	Ornamental	Native to the Eastern United States and Canada.
89	Unidentified														5 (Kaligarh block – 17)		5		
90	Dryopteridacea e; <i>Dryopteris cycadina</i> (Franch. & Sav.) C. Chr.	 Wood fern													5 (Kaligarh block – 17)		5	Ornamental	Native to northern India, China, Taiwan and Japan
91	Aspleniaceae ; <i>Asplenium spp.</i>														1 (Kaligarh block – 17)		1	Ornamental	
92	Unidentified														5 (Kaligarh block – 17)		5		
93	Dryopteridacea e; <i>Polystichum aculeatum</i> (L.) Roth	 Hard shield fern													5 (Kaligarh block – 17)		5	Ornamental	Native to Europe

94	Marsileaceae; <i>Marsilea minuta</i>	 Dwarf waterclover													15 (Kaligarh block – 17)		15	Medicinal	Native to Southeast Asia
95	Dryopteridaceae; <i>Polystichum nepalense</i> (Spreng.) C.Chr.														2 Gaja (Fernery)		2	Ornamental	Native to Central Himalayas
96	Dryopteridaceae; <i>Polystichum stimulans</i> (Kunse ex Mett.)														2 Gaja (Fernery)		2	Ornamental	Found from Himalayas to China
97	Blechnaceae; <i>Woodwardia unigemmata</i> Sm.														2 (Kaligarh block – 17)		2	Medicinal	Native to Eastern Asia from the Himalayas to China
98	Ophioglossaceae ; <i>Ophioglossum reticulatum</i>														15 (Kaligarh block – 17)			Medicinal/ Edible.	Native range is Tropics & Subtropics.
99	Polypodiaceae ; <i>Lepisorus tenuipis</i>														15 (Kaligarh block – 17)			Ornamental	
100	Equisetaceae; <i>Equisetum morriensis</i>														20 (Kaligarh block – 17)			Medicinal	Native through out the arctic and temperate regions of the Northern Hemisphere.
101	Equisetaceae; <i>Equisetum diffusum</i>														10 (Kaligarh block – 17)			Medicinal	Native species to the Himalayan Mountains.

102	Pteridaceae; <i>Adiantum capillus - veneris</i>														5 (Kaligarh block – 17)			Medicinal	Native to the southern half of the United States from California to the Atlantic coast, through Mexico and Central America, to South America
103	Pteridaceae; <i>Onychium japonicum</i>														15 (Kaligarh block – 17)			Ornamental	Native to asia
104	Selaginellaceae; <i>Selaginella invocular</i>														2 (Kaligarh block – 17)			Ornamental	
105	Polypodiopsida; <i>Botrychium ternatum</i>														1(Kaligarh block – 17)			Medicinal	Native range is Himalaya to S. Sakhalin and Temp. E. Asia
106	Selaginellaceae; <i>Selaginella concolus</i>														25 (Kaligarh block – 17)			Ornamental	
107	Dryopteridaceae; <i>Dryopteris spp.</i>														20(Kaligarh block – 17)			Ornamental	
108	Aspleniaceae; <i>Asplenium lanceolata</i>														1(Kaligarh block – 17)			Ornamental	

109	Polypodiaceae; <i>Drynaria</i> <i>propanoperis</i>														3 (Kaligarh block – 17)			Medicinal	Native to tropical Africa, South Asia
110	Lindsaeaceae; <i>Spinomeris</i> <i>chinensis</i>														2 (Kaligarh block – 17)			Ornamental	Native to Madagascar, China, the Himalyas, India, Sri Lanka
111	Lygodiaceae; <i>Lygopodium</i> <i>japonicum</i>														1 (Kaligarh block – 17)			Ornamental	Native to southern and eastern China, Japan, Korea, the Indian sub- continent
112	Polypodiaceae; <i>Hypolepis</i> <i>punctata</i>														5 (Kaligarh block – 17)			Ornamental	Native to China and East Asia.
113	Thelypteridacea e; <i>Pronephrium</i> <i>penguin</i>														1 (Kaligarh block – 17)			Ornamental	
114	Pteridaceae; <i>Cheilanthes</i> <i>albomarginata</i>														15 (Kaligarh block – 17)			Ornamental	Native range is Indian Subc ontinent to S. China
115	Araceae; <i>Anthurium</i> <i>rugulosum</i>														50 (Kaligarh block – 17)			Fodder	

116	Selaginellaceae; <i>Selaginella</i> <i>cultivar</i>														2 (Kaligarh block – 17)			Ornamental	
117	Salviniaceae; <i>Salvinia</i> <i>auriculata</i>														8 (Kaligarh block – 17)			Ornamental	Native to South and Central America
118	Pteridaceae; <i>Coniogramme</i> <i>spp</i>														1 (Kaligarh block – 17)			Ornamental	
119	Osmundaceae; <i>Osmunda regalis</i>														1 (Kaligarh block – 17)			Medicinal	Native range is Macaronesia , Europe to Medit. and Iran.
120	Osmundaceae; <i>Osmunda</i> <i>Claytoniana</i>														2 (Kaligarh block – 17)			Medicinal	Native to Eastern Asia, Eastern United States, and Eastern Canada.
121	Pteridaceae; <i>Adiantum</i> <i>incisum</i>														20 (Kaligarh block – 17)			Medicinal	It is accepted, and its native range is Africa, Arabian Peninsula Indi an Subcontine nt to China
122	Thelypteridacea e; <i>Glaphyropterido psis erubescens</i>														1 (Kaligarh block – 17)			Medicinal	Native range is Himalaya to Temp. E. Asia and Philippines.

123	Athyriaceae; <i>Athyrium schimperi</i>														1 (Kaligarh block – 17)			Fodder	Native range is Tropical & S. Africa, Madagascar
124	Dryopteridaceae <i>Cystopteris fragile</i>														1 (Kaligarh block – 17)		1	Ornamental	
125	Polypodiaceae; <i>Polystichum longipaleatum</i>														2 (Kaligarh block – 17); 4 (Fernery, Gaja)	50 (Pangot)	56	Ornamental	Native range is Himalaya to S. China
126	Athyriaceae; <i>Athyrium tenuifrons</i>														2 (Kaligarh block – 17)		2	Ornamental	
127	Polypodiaceae; <i>Lepisorus mehrae</i>														8 (Kaligarh block – 17)		8	Ornamental	
128	Salviniaceae <i>Azolla pinnata</i>														15 (Kaligarh block – 17)			Ornamental	Africa, Asia (Brunei Darussalam, China, India, Japan, Korea, and the Philippines) and parts of Australia.
129	Nephrolepidaceae; <i>Nephrolepis duffii</i>														5 (Kaligarh block – 17)			Ornamental	Native to Australia

130	Selaginellaceae <i>Selaginella wallichii</i>														8 (Kaligarh block – 17)			Ornamental	Native to China and several countries in Southeast Asia.
131	Selaginellaceae; <i>Sellaginella vogelii</i>														5 (Kaligarh block – 17)			Ornamental	Native to tropical Africa
132	Selaginellaceae; <i>Sellaginella erythropus</i>														5 (Kaligarh block – 17)			Ornamental	Native range is Costa Rica, S. Tropical America.
133	Selaginellaceae; <i>Sellaginella braunii</i>														10 (Kaligarh block – 17)			Ornamental	Native to China.
134	Selaginellaceae; <i>Selaginella wildenovii</i>														5 (Kaligarh block – 17)			Ornamental	Native from Asia: Burma, Malaysia, Indonesia e Philippines
135	Marattiaceae <i>Angiopteris helferiana</i>														5 (Kaligarh block – 17)			Ornamental	Native range is Indian Subc ontinent to Temp. E. Asia and W. Malesia.
136	Dryopteridacea e; <i>Bolbitis heterocilta</i>														2 (Kaligarh block – 17)			Ornamental	

137	Tectariaceae; <i>Tectaria wightii</i>														1 (Kaligarh block – 17)			Ornamental	Native range is Tropical & Subtropical
138	Tectariaceae; <i>Tectaria incisa</i>														2 (Kaligarh block – 17)			Ornamental	Native from Columbia.
139	Thelypteridaceae; <i>Pronephrium nudatum.</i>														5 (Kaligarh block – 17)			Ornamental	Native range is Indian Subcontinent to China (Yunnan, Guizhou) and Indo-China.
140	Pteridaceae; <i>Pteris subquinata</i>														2 (Kaligarh block – 17)			Ornamental	
141	Tectariaceae; <i>Tectaria polymorpha</i>														2 (Kaligarh block – 17)			Ornamental	Native range is Tropical & Subtropical
142	Pteridaceae; <i>Pteris biaurita</i>														2 (Kaligarh block – 17)			Ornamental	Africa, the Americas, and Asia.
143	Lindsaeaceae; <i>Odenotosaia chinensis</i>														2 (Kaligarh block – 17)			Ornamental	

144	Davalliaceae; <i>Araiostegia beddomei</i>														2 (Kaligarh block – 17)			Ornamental	
145	Thelypteridaceae; <i>Macrothelypteris ornata</i>														2 (Kaligarh block – 17)			Ornamental	Native to tropical and subtropical Africa and Asia
146	Polypodiaceae; <i>Loxogramme involuta</i>														6 (Kaligarh block – 17)			ornamental	Native range is Himalaya to Japan and Indo-China, Central & S. Malesia.
147	Selaginellaceae; <i>Selaginella bryopteris</i>														20 (Kaligarh block – 17)			Medicinal	Native to India.
148	Pteridaceae; <i>Hemionitis arifolia</i>	 Heart fern													1 (Kaligarh block – 17)			Ornamental	Srilanka , India, Indochina, Malaysia.
149	Polypodiaceae; <i>Microsorium musifolium</i>	 Crocodyllus fern													1 (Kaligarh block – 17)			Ornamental	S. Myanmar to New Guinea.
150	Aspleniaceae; <i>Asplenium spp.</i>														5 (Kaligarh block – 17)				Native to northen Mexico and disjunction to the Himalaya

151	Psinopteridaceae ; <i>Cheilanthes dubia (C.Hope)</i>														2Gaja(Fernery)		2	Medicinal	Native to Himalayas
152	Polypodiaceae; <i>Pyrrosia flocculosa Don . (Ching)</i>														2 (Kaligarh block – 17)			Ornamental	
153	Polypodiaceae; <i>Goniophlebium argutum Wall.ex Hook</i>														2 (Kaligarh block – 17)			Ornamental	Himalaya to S. china
154	Selaginaceae; <i>Sellaginella oxyloba</i>														5 (Kaligarh block – 17)			Ornamental	
155	Polypodiaceae; <i>Lepisorus scolopendrium</i>														5 (Kaligarh block – 17)			Ornamental	Himalaya to S. china
156	Pyrrosia erythtocarpa (Mett. Ex Kze) Ching														2 (Kaligarh block – 17)			Ornamental	
157	Selaginaceae; <i>Selaginella hastata</i>														5 (Kaligarh block – 17)			Ornamental	
158	Polypodiaceae; <i>Lepisorus thunbergianus Kaulf</i>	 Weeping Fern													2 (Kaligarh block – 17)			Ornamental	China , Bhutan , N. E India

159	Pteridaceae; <i>Pteris terminalis</i>														2 (Kaligarh block – 17)			Ornamental	
160	Polypodiaceae; <i>Loxogramme porcata</i>														2 (Kaligarh block – 17)			Ornamental	
161	Polypodiaceae; <i>Arthromeris lehmanii</i> Mett. <i>Ching</i>														2 (Kaligarh block – 17)			Ornamental	Himalaya to Taiwan
162	Polypodiaceae; <i>Pyrrosia mollis</i>														6 (Kaligarh block – 17)			Ornamental	Native rangmeroon to Uge is Caanda and S. Tropical Africa.
163	Marattiaceae; <i>Angiopteris evecta</i> Hoffm.														6 (Kaligarh block – 17)			medicinal	New Guinea, Australia, Melanesia, Micronesia.
164	Cyatheaceae; <i>Alsophila khasyana</i>														6 (Kaligarh block – 17)			Ornamental.	India to Myanmar
165	Dryopteridaceae; <i>Polystichum</i> spp.														6 (Kaligarh block – 17)			Ornamrntal	
166	Cyatheaceae; <i>Cyathea gigantea</i>														6 (Kaligarh block – 17)			Ornamental	Northeastern to Southern India.

167	Pteridaceae; <i>Adiantum assamicum</i>														6 (Kaligarh block – 17)			Ornamental	
168	Pteridaceae; <i>Pteris spp.</i>														6 (Kaligarh block – 17)			Ornamental	Native to Europe, Asia and Africa.
169	Dryopteridace ae; <i>Dryopteris caroli-hopei</i>														5 Gaja(Ferner y)		5		Found in Bhutan, China, Malay Penninsula, Myanmar, Nepal, Srilanka, Taiwan and Tibet.
170	Dryopteridace ae; <i>Dryopteris chryosocoma</i>														5 Gaja(Ferner y)		5	Medicinal	Found in Bhutan, China, Myanmar, Nepal , Pakistan, Philippines, Taiwan and Tibet.
171	Athyriaceae; <i>Diplazium muricatum</i>														5 Gaja(Ferner y)		5		Sri Lanka, India, Burma, in Java.
172	Equisetaceae ; <i>Equisetum ramosissimum</i>														5 Gaja(Ferner y)		5	Medicinal	Afghanistan, Bangladesh, Bhutan, India, Indonesia, Japan, Kashmir, Korea, Laos, Malaysia, Mongolia, Myanmar, Nepal, New Guinea, Pakistan, Philippines,

																			Russia, Singapore, Sri Lanka, Thailand, Vietnam; Africa, Central and South West Asia, Europe.
173	Thelypteridaceae; <i>Ampelopteris prolifera</i>														5 Gaja(Fernery)		5	Medicinal	Africa, through mainland Asia to New Guinea, Australia and New Caledonia
174	Pteridaceae; <i>Pteris dactylina</i>														5 Gaja(Fernery)		5	Ornamental	Sikkim, Meghalaya, Assam, Arunachal Pradesh, Darjeeling, Uttarakhand, China, Formosa, Japan, Myanmar and Nepal.
175	Thelypteridaceae; <i>Psuedopheogopteris pyrrhorachis</i>														5 Gaja (Fernery)		5	Ornamental	India, east to the Pacific islands, to the west reaching to West Africa
176	Polypodiaceae; <i>Arthromeris wallichiana</i>														5 Gaja (Fernery)		5	Ornamental	Bhutan, North India, North Myanmar, Nepal, and North Vietnam.
177	Polypodiaceae; <i>Drynaria propingua</i>														5 Gaja (Fernery)		5	Ornamental	Himalaya. Including Central China and Indo-China, Jawa, Bhutan,

																			North India, Myanmar, Nepal, Thailand and Vietnam.
178	Thelypteridaceae; <i>Christella papilio</i>														5 Gaja (Fernery)		5	Ornamental	Kashmir to Meghalaya, Bangladesh, Mauritius, Nepal, Singapore, Srilanka, Thailand and Taiwan.
179	Athyriaceae ; <i>Athyrium strigillosum</i>														5 Gaja (Fernery)		5	Ornamental	Bhutan, North India, Japan, Kashmir, Myanmar and Nepal

- 20 species are yet to be identified

X. Alpine Flower/ Brahm Kamal Species:

Alpine Flower/ Brahm Kamal Species are being conserved at Mana (Research Range, Gopeshwar).

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery								Experiment Site	Preservation Plot	Grand Total	Use	Native Region	
				Nursery Name													Total
				1		2		3		4							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Asteraceae ; <i>Saussurea obvallata</i> (DC.) Edgew.	 Brahmakamal	Endangered Saussurea species in Indian Himalayan,Region (as per Research paper-page no. 264)									330 (Mana van panchayat); 10(RET demonstration site, Harkot Munsyari)	—	340	Medicinal	Himalayas to China.	
2.	Asteraceae ; <i>Saussurea simpsoniana</i> (Field. &Gard.) Lipsch.	 Phen Kamal	Endangered Saussurea species in Indian Himalayan,Region (as per Research paper-page no. 264)									58 (Mana van panchayat)	—	58	Medicinal	Indian Himalayan region	
3.	Asteraceae ; <i>Saussurea gossypiphora</i> D. Don	 Kasturi Kamal	Critically endangered Saussurea species in Indian Himalayan,Region (as per Research paper-page no. 264)									12 (Mana van panchayat)	—	12	Medicinal	Indian Himalayan region	
4	Asteraceae ; <i>Cremanthodium arnicoides</i> (DC.ex Royle) Good	 Jarhil										90 (Mana van panchayat)	—	90	Ornamental	Indian Himalayan region	
5	Boraginaceae ; <i>Arnebia benthami</i> (Wall. ex G. Don) Johnston	 Baal chhadi	Endangered (International Journal of Applied, Biology, and Pharmaceutical, Technology). (as per Research paper-page no. 264)	Devvan	24	Patalhod	15					18 (Mana van panchayat)	—	57	Medicinal	Indian Himalayan region	

6	Ranunculaceae; <i>Anemone tetrasepala</i> Royle	 Anemone										90 (Mana van panchayat)	—	90	Orname ntal	Indian Himalayan region
7	Papavaraceae; <i>Meconopsis aculeata</i> Royle	 Himalyan Blue Poppy	Critically Endangered International Journal of Applied, Biology, and Pharmaceutical, Technology.	Pataltho d	5						5	10 (Mana van panchayat)	—	15	Medicina l	Near Endemic Indian Himalayan region
8	Onagraceae; <i>Epilobium latifolium</i> Linn.	 River beauty										4 (Mana van panchayat)	—	4	Orname ntal	Indian Himalayan region
9	Fabaceae; <i>Thermopsis barbata</i> Benth.	 Black Pea										1 (Mana van panchayat)	—	1	Orname ntal	Himalaya to W.&S. Central China
10	Dipsacaceae; <i>Morina longifolia</i> Wall. ex de Candolle	 Biskanera		Devvan	09						09	18 (Mana van panchayat)	—	27	Medicina l	Indian Himalayan region
11	Asteraceae ; <i>Saussurea graminifolia</i> Wall. ex D. C.	 Neelkamal										250 (Mana van panchayat)		250	Fodder	Indian Himalayan region
12	Ranunculaceae; <i>Trollius acaulis</i> Lindl.											8 (Mana van panchayat)		8	Orname ntal	Indian Himalayan region

13	Ranunculaceae; <i>Aquilegia nivalis</i> (Baker) Falc. ex B. D. Jacks.		Rare (IUCN red list 1997)									5 (Mana van panchayat		5	Orname ntal	Indian Himalayan region
14	Ranunculaceae: <i>Anemone obtusifolia</i>	 Kukkdu						Devvan	02			02		02	Medicina l	Alpine Himalayas

XI. Wild Flower

Wild Flowers are being conserved at Research Range Gaja, Jeolikote.

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/ Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery								Total	Experiment Site	Preservation Plot	Grand Total	Use	Native Region
				Nursery Name													
				1		2		3		4							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Polygonaceae; <i>Persicaria orientalis</i>	 Machoti										4 (Gaja) Wild flowers		4	Medicinal	China, Japan and southward to Australia	
2.	Hypericaceae; <i>Hypericum oblongifolium</i>	 Basanti/pyoli										2 (Gaja) Wild flowers		2	Medicinal	Native to western Himalayas	
3.	Asteraceae; <i>Anaphalis margaritaceae</i>	 Cottonweed										2 (Gaja) Wild flowers		2	Medicinal	Native to Himalayas	
4.	Asteraceae; <i>Erigeron bellidiodes</i>											2(Gaja) Wild flowers		2	Ornamental	Native to Indian subcontinent	
5.	Polygonaceae; <i>Persicaria capitata</i>											3 (Gaja) Wild flowers		3	Medicinal	Native to Indian subcontinent	

6.	Violaceae; <i>Voila verecunda</i>												2(Gaja)		2	Edible and medicinal	Native to Himalayas
7.	Amaryllidaceae; <i>Zephyranthes carinata</i>	 Fairy Lily											10 (Gaja) Wild flowers		10	Ornamental	Native to Mexico
8.	Araceae; <i>Arisaema propinquum</i>												2(Gaja) Wild flowers		2	Medicinal	Native to the Himalayas
9.	Primulaceae; <i>Primula denticulata</i>			Devvan	14							14	1 (Gaja) Wild flowers		15	Ornamental	Native to India
10.	Convolvulaceae; <i>Ipomea purpurea</i>												1 (Gaja) Wild flowers		1	Ornamental	Native to India
11.	Solanaceae; <i>Burgmansia suaveolans</i>	 Dhatura	Extinct in the wild										2 (Gaja) Wild flowers 10 (Public Health Garden)		12	Medicinal	Native to Southeastern Brazil
12.	Rubiaceae; <i>Spermadictyon suaveolens</i>	 Van champa											2(Gaja) Wild flowers 20 Bhujiyagh at (Aromatic plants)		22	Ornamental	Native to Western Ghats and Himalayas.

13.	Asteraceae; <i>Cosmos sulphurous</i>	 Cosmos											4(Gaja) Wild flowers		4	Ornamental	Native to Mexico and northern South America
14.	Asteraceae ; <i>Solidago canadensis</i>	 Common goldenrod											4(Gaja) Wild flowers		4	Medicinal	Native to northeastern and north central North America
15.	Buddlejaceae; <i>Buddleja davidii</i>	 Butterfly Bush		Patalh od	100								2(Gaja) Wild flowers		102	Butterfly host	Karnataka: Mysore Tamil Nadu: Dindigul
16.	Malvaceae ; <i>Malvaviscus arboreus</i>												2(Gaja) Wild flowers		2	Ornamental	Native to Northeast India
17.	Acanthaceae; <i>Eranthemum pulchellum</i>												2(Gaja) Wild flowers		2	Ornamental	Native ranges are India, Himalayas and Western China.
18.	Asteraceae; <i>Dahlia sorensenii</i>												2(Gaja) Wild flowers		2	Edible and medicinal	Native to Mexico and Central America
19.	Oleaceae; <i>Jasminum mesnyi</i>												2 (Gaja) Wild flowers/ 2 (Lata pergola Haldwani)		4	Ornamental	Native to Vietnam and southern China
20.	Linaceae; <i>Reinwardtia indica</i>			Kalika	500								502 (Gaja) Wild flowers		502	Ornamental	Native to India

21.	Thymelaeaceae; <i>Wikstroemia canescence</i>											2 (Gaja) Wild flowers		2	Ornamental	Native range is Indian Himalayas
22.	Orbanchaceae; <i>Pedicularis bifida</i>	 Kukarjhar		Patalth od	50						50			50	Medicinal	India, Nepal, China
23.	Campanulaceae; <i>Cyananthus lobatus</i>	 Trailing Bellflower		Patalth od	50						50			50	Ornamental	Himalayas from Himachal Pradesh to SW china
24.	Asteraceae; <i>Myriactis wallichii</i>	 Wallich's Myriactis		Patalth od	50						50			50	Medicinal	China, Indian subcontinent, Southeast Asia
25.	Asteraceae; <i>Erigeron annuus</i> (L.) Pers.	 Daisy fleabane										10 (Gaja) Wild flowers		10	Ornamental	Native to America and naturalised in hill stations of North India.
26.	Lamiaceae; <i>Pogostemon benghalensis</i> (Burm.f.) Kuntze	 Lupa										2(Gaja) Wild flowers		2	Ornamental	Native to India
27.	Polygonaceae; <i>Fagopyrum esculentum</i> Moench	 Uggal										2(Gaja) Wild flowers		2	Vegetable	Native to Asia
28.	Gesneriaceae; <i>Chirita bifolia</i> D.Don	 Two leaved chirita										10(Gaja) Wild flowers		10	Ornamental	Native range are Himalayas

29.	Liliaceae; <i>Theropogon pallidus</i> (Wall. ex Kunth)												2(Gaja) Wild flowers		2	Ornamental	Native range are Himalayas
30.	Ranunculaceae; <i>Thalictrum virgatum</i> Hook.f. & Thomson	 Virgate meadow rue											2(Gaja) Wild flowers		2	Ornamental	Native to Himalayas
31.	Rosaceae; <i>Rosa brunonii</i> Lindl.	 Himalayan musk rose											2(Gaja) Wild flowers		2	Rose water	Native to central and western Himalayas.
32.	Ranunculaceae; <i>Anemone vitifolia</i> Buch. Ham.ex DC.	 Agali											2(Gaja) Wild flowers		2	Medicinal	From Afghanistan to South west China to Myanmar.
33.	Asteraceae; <i>Ainsliaea aptera</i> DC.	 Koru		Devvan	12							12			12	Ornamental	India, Nepal, and Bhutan
34.	Nyctaginaceae; <i>Mirabilis jalapa</i>	 4 o' clock		Kalika	5										5	Medicinal	Native to Mexico
35.	Melastomataceae; <i>Melastoma malabathricum</i>	 Malabar		Kalika	10										10	Medicinal	Native to tropical Asia and Polynesia, and Australia
36.	Gesneriaceae; <i>Chirita pumila</i>												20(Gaja) Wild flowers		20	Ornamental	Extends from Himachal to Vietnam

37.	Scrophulariaceae; <i>Buddleia asiatica</i>	 Butterfly Bush											1 (Gaja) Wild flowers; 10 (Aromatic Project Site, Lalkuan)		11	Ornamental	Native to India, Malayasia, China, Burma and Pakistan.
38.	Gesneriaceae; <i>Rhynchoglossum obliquum</i>												20 (Gaja) Wild flowers		20	Ornamental	Uttarakhand to North East India and Burma.
39.	Verbenaceae; <i>Psuedocaryopteris bicolor</i> (Roxb. Ex Hardw.)	 Blue mist shrub		Gaja	1								1 (Gaja) Wild flowers		1	-	Native to Himalayas
40.	Lamiaceae; <i>Salvia lanata</i> Roxb.	 Woolly sage		Gaja	30									1 (Gaja) Wild flowers	31		Native to Himalayas

XII. Palm Species:

Palm Species are being conserved at Palmetum at Research Range, Haldwani.

S. No.	Family; Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttara khand Govt. / Indian Biodiversity Portal)	Nursery								Total	Experiment Site	Preservati on Plot	Grand Total	Use	Native Region
				Nursery name													
				1		2		3		4							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery name	No. Of plant						
1.	Areaceae; <i>Chamaedorea metallica</i> O.F. Cook ex H.E. Moore	 Metal Palm										1 (Palmetum)		1	Ornamental	Native to Southeastern Mexico	
2.	Asparagaceae; <i>Beaucarnea recurvata</i> Lem.	 Ponytail palm	Critically Endangered (IUCN)									4 (Palmetum)		4	Ornamental	Native to the states of Tamaulipas, Veracruz and San Luis Potosí in eastern Mexico	
3	Areaceae; <i>Livistona chinensis</i> (Jacq.) R. Br.	 Chinese Fan Palm										4 (Palmetum)		4	Ornamental	Native to Southern Japan, Taiwan	
4	Areaceae; <i>Thrinax radiata</i> Lodd. ex Schult. & Schult.f.	 Thatch Palm	Least Concern (IUCN)									4 (Palmetum)		4	Ornamental	Native to many Caribbean islands, Central America, and far Southern Florida.	
5	Areaceae; <i>Hyophorbe lagenicaulis</i> (L.H. Baily) H.E. Moore	 Bottle palm	Critically endangered (IUCN)									42 (Palmetum)		42	Ornamental	Native to Round Island, Mauritius.	

6	Areaceae; <i>Ravenea rivularis</i> Jum. & H. Perrier	 Majestic Palm	Vulnerable (IUCN)										4 (Palmetum)		4	Ornamental	Native to South central Madagascar
7	Areaceae; <i>Thrinax parviflora</i> (Burret) Borhidi & Muniz	 Broom Palm											3 (Palmetum)		3	Ornamental	Endemic to the Blue Mountains of Jamaica
8	Areaceae; <i>Wodyetia bifurcata</i> A.K. Irvine	 Foxtail Palm	Conservation Dependent (IUCN)										3 (Palmetum)		3	Ornamental	Endemic to a remote area in Queensland, Australia
9	Areaceae; <i>Caryota rumphiana</i> Mart.	 Fish tail fern											4 (Palmetum)		4	Ornamental	Native to Philippines, Sulawesi, Maluku, New Guinea, Solomon Islands, Bismarck Archipelago.
10	Areaceae; <i>Chamaedorea</i> <i>costaricana</i> Oerst.	 Bamboo Palm											4 (Palmetum)		4	Ornamental	Native to Costa Rica
11	Areaceae; <i>Cocos nucifera</i> L.	 Coconut											2 (Palmetum)		2	Ornamental	Native to tropical islands in the western Pacific.
12	Areaceae; <i>Dypsis leptocheiros</i>	 Red neck palm	Critically endangered (IUCN)										4 (Palmetum)		4	Ornamental	Native to Madagascar

13	Areaceae; <i>Dypsis lutescens</i> (H. Wendl.) Beentje & J. Dransf.	 Golden cane palm	Near Threatened (IUCN)										4 (Palmetum)		4	Ornamental	Native to East Madagascar
14	Areaceae; <i>Hydriastele microspadix</i>	 Hydraki Palm											2 (Palmetum)		2	Ornamental	Endemic to the Moluccan Islands of Maluku, and Ceram in Eastern Indonesia.
15	Areaceae; <i>Hyophorbe verschaffeltii</i> H. A.Wendl.	 Spindle Palm	Critically Endangered (IUCN)										4 (Palmetum)		4	Ornamental	Native to Mascarene Islands
16	Areaceae; <i>Phoenix acaulis</i> Roxb.	 Dwarf Date Palm											4 (Palmetum)		4	Ornamental	Native to Northern India, Bhutan and Nepal
17	Areaceae; <i>Rhapis excelsa</i> (Thunb.) A. Henry	 Lady Palm											4 (Palmetum)		4	Ornamental	Native to Southern China and Taiwan
18	Areaceae; <i>Washingtonia robusta</i> H. Wendl.	 Mexican fan Palm	Near Threatened (IUCN)										4 (Palmetum)		4	Ornamental	Native to Western Sonora, and Baja California Sur in Northwestern Mexico.
19	Areaceae; <i>Serenoa repens</i> (Bart.) J.K. Small	 Saw Palm											4 (Palmetum)		4	Ornamental	Native to the Southeastern United States of America

20	Arecaceae; <i>Sabal minor</i> (Jacq.) Pers.												4 (Palmetum)		4	Ornamental	Native to the southern United States from North Carolina to Texas and northeast Mexico.
21	Arecaceae; <i>Phoenix canariensis</i> Chabaud		Least concern (IUCN)										4 (Palmetum)		4	Ornamental	Native to the Canary Islands
22	Arecaceae; <i>Caryota urens</i> L.		Least concern (IUCN)										4 (Palmetum)		4	Ornamental	Native to the Indian Subcontinent
23	Arecaceae; <i>Phoenix dactylifera</i> L.												4 (Palmetum); 1 (Buddha Park) 5 (Public Health Garden)		10	Ornamental and Edible	Native to Northern Africa and southwestern Asia.
24	Arecaceae; <i>Elaeis guineensis</i> Jacq.		Least Concern (IUCN)										1 (Palmetum)		1	Ornamental	Native to west and southwest Africa
25	Arecaceae; <i>Chamaedorea elegans</i> Mart.												9 (Palmetum)		9	Ornamental	Native to eastern Mexico, Guatemala, and Belize (country located on the north eastern coast of Central America)

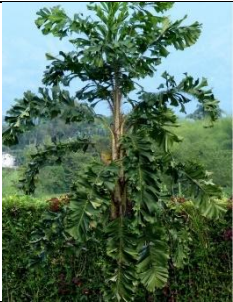
26	Areaceae; <i>Pritchardia remota</i> Becc.	 Pritchardia Palm	Endangered (IUCN)										4 (Palmetum)		4	Ornamental	Endemic Hawaiian species
27	Areaceae; <i>Chamaerops humilis</i> L.	 European Fan palm	Least concern (IUCN)										2 (Palmetum)		2	Ornamental	Native to continental Europe
28	Areaceae; <i>Veitchia winin</i> H.F. Moore	 Winin Palm											1 (Palmetum)		1	Ornamental	Native to the Vanuatu Islands.
29	Areaceae; <i>Livistona decora</i> (W.Bull) Dowe	 Weeping Cabbage Palm											2 (Palmetum)		2	Ornamental	
30	Areaceae; <i>Acoelorrhaphe wrightii</i> H. Wendl. ex Becc.	 Everglades palm											6 (Palmetum)		6	Ornamental	Native to Florida, the Caribbean and Central America.
31	Areaceae; <i>Adonidia merrillii</i> Becc.	 Christmas palm	Near threatened (IUCN)										4 (Palmetum)		4	Ornamental	Native to the Philippines.
32	Areaceae; <i>Aiphanes aculeata</i> Willd.	 Ruffle palm											4 (Palmetum)		4	Ornamental	Native to northern South America and Trinidad and Tobago.

33	Arecaceae; <i>Aiphanes minima</i> (Gaertn.) Burret												1 (Palmetum)		1	Ornamental	Native to the insular Caribbean from Hispaniola to Grenada.
34	Arecaceae; <i>Arenga hookeriana</i> (Becc.) Whitmore	 Hooker Fishtail Palm											1 (Palmetum)		1	Ornamental	Native to the humid forests of the Malaysian peninsula and the southern Thailand.
35	Arecaceae; <i>Arenga microcarpa</i>	 Toddy palm											1 (Palmetum)		1	Ornamental	Endemic to Maluku, New Guinea, open lowland areas near streams in Irian Jaya, and the Northern Territory of Australia.
36	Arecaceae; <i>Arenga obtusifolia</i>	 Sumatra sugar palm											3 (Palmetum)		3	Ornamental	Native to Java, Peninsular Malaysia, Sumatra and Thailand.
37	Arecaceae; <i>Cryosophila warscewiczii</i> (H. Wendl.) Bartlett	 Silver Star Palm											3 (Palmetum)		7	Ornamental	Endemic to Central America.
38	Arecaceae; <i>Chamaedorea cataractarum</i> Mart.	 Cat palm											3 (Palmetum)		3	Ornamental	Native to Southern Mexico and Central America.
39	Arecaceae; <i>Chamaedorea ernesti augusti</i> H. Wendl.												3 (Palmetum)		3	Ornamental	Native range is S. Mexico to Honduras.

40	Arecaceae; <i>Chamaedorea seifrizzi</i>	 Bamboo Palm											4 (Palmetum)		4	Ornamental	Native to Mexico and Central America.
41	Arecaceae; <i>Licuala grandis</i> (hort. ex W. Bull) H. Wendl.	 Ruffled Fan Palm											1 (Palmetum)		1	Ornamental	Native to Vanuatu, an island nation in the Pacific.
42	Arecaceae; <i>Licuala spinosa</i> Roxb.	 Mangrove fan palm											3 (Palmetum)		3	Ornamental	Native to the moist areas of southeast Asia.
43	Arecaceae; <i>Livistona jenkinsiana</i> Kurz	 Major Jenkins' fan palm											3 (Palmetum)		3	Ornamental	Native from Bhutan to Thailand.
44	Arecaceae; <i>Livistona rotundifolia</i> (Lam.) Bluem	 Table Palm											4 (Palmetum)		4	Ornamental	Native to the forests of Asia and Australia.
45	Arecaceae; <i>Phoenix rupicola</i> T. anders.	 Cliff Date Palm	Near threatened (IUCN)										4 (Palmetum)		4	Ornamental	Native to the mountainous forests of India and Bhutan.
46	Arecaceae; <i>Latania verschaffeltii</i> Lemaire	 yellow latan palm	Endangered (IUCN)										3 (Palmetum)		3	Ornamental	Native to Mauritius.
47	Arecaceae; <i>Phoenix pusilla</i> Roxb.	 Flour palm											4 (Palmetum)		4	Ornamental	Endemic to southern India and Sri Lanka.

48	Areaceae; <i>Sabal riverside</i>													3 (Palmetum)		3	Ornamental	Native to Mexico
49	Areaceae; <i>Sabal mauritiiformis</i> (H.Karst.) Gr. & H. Wendl.	 Savannah palm												3 (Palmetum)		3	Ornamental	Native to Central America.
50	Areaceae; <i>Ptychosperma macarthurii</i> H. Wendl. ex Hook.f.	 Macarthur palm												3 (Palmetum)		3	Ornamental	Native to southern New Guinea and northern Australia.
51	Areaceae; <i>Ptychosperma lineare</i>	 Cluster Palm												3 (Palmetum)		3	Ornamental	Native from Ethiopia to South Africa and up to western Madagascar.
52	Areaceae; <i>Pritchardia pacifica</i> Seem. & H. Wendl.	 Fiji fan palm												3 (Palmetum)		3	Ornamental	Native to Fiji in the southwest Pacific Ocean.
53	Areaceae; <i>Caryota mitis</i> Lour.	 Clustering fishtail palm	Least concern (IUCN)											3 (Palmetum)		5	Ornamental	Native to Southeast Asia from India to Java to Southern China.
54	Areaceae; <i>Archontophoenix alexandrae</i> (F. Muell.)H.Wendl. &Drude	 King Palm												2 (Palmetum)		2	Ornamental	Native to Queensland and New South Wales, Australia, and naturalised in Hawaii and parts of Florida.
55	Areaceae; <i>Archontophoenix cunninghamiana</i> (F. Muell.)H.Wendl. &Drude	 Bungalow palm												3 (Palmetum)		3	Ornamental	Endemic to Australia.

56	Areaceae; <i>Trachycarpus takil</i> Becc.	 Kumaon fan palm	Rare (ENVIS Endemic and Threatened taxa); Threatened (As per Uttarakhand Biodiversity Board); Rare (Indian Biodiversity Portal)	Patalthod	50	Mandal	4						1 (Palmetum)		1	Ornamental and Handicrafts	Endemic
57	Areaceae; <i>Borassus flabellifer</i> L.	 Palmyra palm				Haldwani	4						3 (State trees of India)		3	Ornamental and Handicrafts	Native to tropical regions of Africa, Asia and New Guinea
58	Areaceae; <i>Sabal rosei</i>	 Savannah Palmetto											1 (Palmetum)		1	Ornamental	Native to Mexico Northwest, Mexico Southwest.
59	Areaceae; <i>Latina rubra</i>	 Latan palm											1 (Palmetum)		1	Ornamental	Native to Ireland
60	Areaceae; <i>Chamaedorea arenbergiana</i>												4 (Palmetum)		4	Ornamental	Native to Southern Mexico
61	Areaceae; <i>Hydriastele pinangoides</i>												4 (Palmetum)		4	Ornamental	Native to New Guinea
62	Areaceae; <i>Washingtonia filifera</i>	 Desert fan palm											2 (Palmetum)		2	Ornamental	Native to Southwestern United States and Baja California

63	Areaceae; <i>Aiphanes horrida</i>												2 (Palmetum)		2	Ornamental	Native to northern South America
64	Areaceae; <i>Areca triandra</i>												4 (Palmetum)		4	Ornamental	Native to India, Bangladesh, Cambodia, Laos, Burma and Thailand
65	Areaceae; <i>Arenga wightii</i>												2 (Palmetum)		2	Ornamental	Endemic to India
66	Areaceae; <i>Bentinckia nicobarica</i>												1 (Palmetum)		1	Ornamental	Endemic to Nicobar
67	Areaceae; <i>Dypsis pembana</i>												1 (Palmetum)		1	Ornamental	Endemic to Tanzania
68	Areaceae; <i>Korthalsia laciniosa</i>												3 (Palmetum)		3	Ornamental	It occurs in Java, Sumatra, the Philippines, Malay Peninsula, Vietnam, Cambodia and in Indochina, and the Nicobar and Andaman Islands.
69	Areaceae; <i>Licuala peltata</i>												3 (Palmetum)		3	Ornamental	It is found in South Asia and Southeast Asia.

70	Areceaceae; <i>Licuala peltata</i> var. 'sumawongii'												3 (Palmetum)		3	Ornamental	It is native to Malaysia and, and southern Thailand.
71	Areceaceae; <i>Licuala rumphii</i>												1 (Palmetum)		1	Ornamental	
72	Areceaceae; <i>Rhapis humilis</i>												1 (Palmetum)		1	Ornamental	It is is native to China.
73	Areceaceae; <i>Roystonea borinquena</i>	 Puerto Rico royal palm											1 (Palmetum)		1	Ornamental	It is native to Hispaniola, Puerto Rico and the Virgin Islands.
74	Areceaceae; <i>Pinanga coronata</i>		Near Threatened (IUCN)										1 (Palmetum)		1	Ornamental	Sumatra, Java, to Lesser Sund Islands.
75	Areceaceae; <i>Dypsis decaryi</i>	 Triangle palm	Vulnerable (IUCN)										2 (Palmetum)		1	Ornamental	
76	Areceaceae; <i>Ptychosperma macarthurii</i>												3 (Palmetum)		3	Ornamental	Its native range is northern Cape York Peninsula in Queensland and New Guinea.

77	Areaceae; <i>Ptychosperma waitianum</i>												2 (Palmetum)		2	Ornamental	It is found in Bav District. Papua New Guinea.
78	Areaceae; <i>Sabal etonia</i>												2 (Palmetum)		2	Ornamental	It is native only to peninsular Florida in the United States
79	Areaceae; <i>Nypa fruticans</i>												4 (Palmetum)		4	Ornamental	It is native to the coastlines and estuarine habitats of the Indian and Pacific Oceans.
80	Areaceae; <i>Copernicia alba</i>	 Caranday Palm											1 (Palmetum)		1	Ornamental	South American species of palm tree
81	Areaceae; <i>Bismarckia nobilis</i>												2 (Palmetum)		2	Ornamental	Endemic to western and northern Madagascar
82	Areaceae; <i>Phoenix sylvestris</i>	 Silver date palm											2 (Palmetum)		2	Ornamental	Native to southern Pakistan, most of India, Sri Lanka, Nepal, Bhutan, Myanmar and Bangladesh
83	Aracaceae: <i>Trachycarpus fortunei</i>												2 (Palmetum)		2	Ornamental	

84	Aracaceae: <i>Carpentaria acuminata</i>	 Carpentaria palm											2 (Palmetum)		2	Ornamental	Native to tropical coastal regions in the north of Northern Territory, Australia.
85	Aracaceae: <i>Arenga engleri</i>	 Formosa palm, Taiwan sugar palm											2 (Palmetum)		2	Ornamental	Native to Taiwan as well as Japan's Ryukyu Islands.
86	Aracaceae: <i>Normanbya normanbyi</i>	 Black palm	Vulnerable (IUCN)										2 (Palmetum)		2		It is endemic to Queensland and Australia
87	Aracaceae: <i>Licuala paludosa</i>												2 (Palmetum)		2		

XIII. Cycads:

Cycad Species are being conserved at Palmetum Conservatory Area at Research Range, Haldwani.

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery								Total	Experiment Site	Preservation Plot	Grand Total	Use	Native Region
				Nursery Name													
				1		2		3		4							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1	Zamiaceae; <i>Zamia furfuracea</i> L.F.	 Cardboard Palm	Endangered (IUCN)										4 (Palmetum)		4	Ornamental	Native to Mexico
2	Zamiaceae; <i>Zamia pumila</i> L.	 Coontie palm	Near Threatened (IUCN)										4 (Palmetum)		4	Ornamental	West Indies
3	Cycadaceae; <i>Cycas revoluta</i> Thunb.	 Sago Palm	Least Concern (IUCN)										4 (Palmetum)		4	Ornamental	Native to Southern Japan including the Ryukyu Islands
4	Cycadaceae; <i>Cycas circinalis</i> L.	 Queen Sago Palm	Endangered (IUCN)										4 (Palmetum)		4	Ornamental	Native to Eastern and Southeastern Asia
5	Zamiaceae; <i>Dioon sp.</i>												1 (Palmetum)		1	Ornamental	

6	Zamiaceae; <i>Zamia fischeri</i> Miq.		Endangered (IUCN)											2 (Palmetum)		2	Ornamental	Endemic to Mexico
7	Zamiaceae; <i>Zamioculcas zamiifolia</i>													3 (Palmetum)		3	Ornamental	Native to Africa
8	Cycadaceae; <i>Cycas zeylanica</i>													3 (Palmetum)		3	Ornamental	Endemic to the Andaman and Nicobar Islands
9	Cycadaceae; <i>Cycas rumphii</i>													3 (Palmetum)		3	Ornamental	Native to Indonesia
10	Zamiaceae; <i>Zamia loddigesii</i>													5 (Palmetum)		5	Ornamental	Endemic to Mexico
11	Zamiaceae; <i>Zamia standleyi</i>													1 (Palmetum)		1	Ornamental	Endemic to Honduras
12	Zamiaceae; <i>Dioon edule</i>													2 (Palmetum)		2	Ornamental	Native to Mexico
13.	Cycadaceae; <i>Cycas andamanica</i>													2 (Palmetum)		2	Ornamental	
14	Zamiaceae; <i>Zamia integrifolia</i>		Near Threatened (IUCN)											2 (Palmetum)		2	Ornamental	Native to the southeastern United States the Bahamas, Cuba, and the Cayman Islands.

15	Zamiaceae; <i>Zamia sp.</i>												2 (Palmetum)		2	Ornamental	
16	Zamiaceae; <i>Cycas annaikalensis</i>		Critically Endangered (IUCN)										2 (Palmetum)		2	Ornamental	Native to the state of Kerala in India.
17	Cycadaceae; <i>Cycas beddomei</i>		Endangered (IUCN)										6 (Palmetum)		6	Ornamental	Native to India
18	Cycadaceae; <i>Cycas seshachalamensis</i>												4 (Palmetum)		4	Ornamental	Native to India

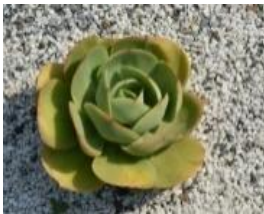
- 2 species is yet to be identified

XIV. Cactus/ Succulent Species:

Cactus/ Succulent species are being conserved in Research Range, Haldwani.

S. No	Family; Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt./ Indian Biodiversity Portal)	Nursery						Total	Experiment Site	Preservation Plot	Grand Total	Use	Native Region
				Nursery Name											
				1		2		3							
				Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant						
1.	Crassulaceae; <i>Aeonium arboreum</i>	 Irish rose									2 (Cactus and succulents garden)		2	Ornamental	Native to Atlantic Islands.
2.	Crassulaceae; <i>Aeonium decorum variegated</i>	 Tree Aeonium									2 (Cactus and succulents garden)		2	Ornamental	Native to Canary Islands.
3.	Crassulaceae; <i>Aeonium haworthi</i> 'Kiwi'	 Kiwi Verde									2 (Cactus and succulents garden)		2	Ornamental	Native to Canary Islands.
4.	Crassulaceae; <i>Aeonium castello paivaevargata</i>	 Suncup									2 (Cactus and succulents garden); 2 (Succulent trial)		2	Ornamental	Native of Canary islands.
5.	Crassulaceae; <i>Sedum morganianum</i>	 Donkey's tail									2 (Cactus and succulents garden)		2	Ornamental	Native to Southern Mexico and Honduras.

6.	Crassulaceae; <i>Sedum pachyphyllum</i>										5 (Cactus and succulents garden); 2 (Succulent Trail)		7	Ornamental	Native to Mexico.
		Blue Jelly Beans													
7.	Crassulaceae; <i>Sedum treleasei</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.
		Stonecrop													
8.	Crassulaceae; <i>Sedum rubrotinctum</i>										1 (Cactus and succulents garden); 2 (Succulent trail)		3	Ornamental	Native to Mexico.
		Christmas Cheer													
9.	Crassulaceae; <i>Sedum rubrotinctum</i> <i>'Aurora'</i>										4 (Cactus and succulents garden); 9 (Succulent trail)		13	Ornamental	Native to Mexico.
		Jelly bean plant													
10.	Crassulaceae; <i>Bryophyllum daigremontianum</i>										20 (Cactus and succulents garden)		20	Ornamental	Native to Madagascar
		Mother of thousand plants													
11.	Crassulaceae; <i>Bryophyllum delagoense</i>										9 (Cactus and succulents garden)		9	Ornamental	Native to Madagascar
		Devils back bone													
12.	Crassulaceae; <i>Kalanchoe millotii</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Arid parts of Madagascar
		Millot Kalanchoe													

13.	Crassulaceae; <i>Kalanchoe thyrsiflora</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to South Africa and Switzerland.
		Paddle plant													
14.	Crassulaceae; <i>Kalanchoe luciae</i>										1 (Cactus and succulents garden); 2 (Succulent trail)		3	Ornamental	
		Flap jack													
15.	Crassulaceae; <i>Kalanchoe fedtschenkoi</i> 'Kiwi'										3 (Cactus and succulents garden)		3	Ornamental	Native to Madagascar
		Lavender Scallops													
16.	Crassulaceae; <i>Echeveria runyonii</i>										2 (Cactus and succulents garden); 2 (Succulent trail) 2 (Cactus and succulents garden)		6	Ornamental	Native to Tamaulipas in Mexico.
		Topsy turvy													
17.	Crassulaceae; <i>Echeveria lilacina</i>										2 (Cactus and succulents garden); 2 (Succulent trial)		4	Ornamental	Native to Nuevo Leon Mexico.
		Ghost Echeveria													
18.	Crassulaceae; <i>Echeveria mandala</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to Semi desert areas of Central America.
		Ruby Lips													
19.	Crassulaceae; <i>Echeveria</i> 'Blue Bird'										2 (Cactus and succulents garden); 2 (Succulent trail)		4	Ornamental	Native to Mexico.
		Blue Bird													

20.	Crassulaceae; <i>Echeveria purple pearl</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to Mexico & USA.
		Purple Pearl													
21.	Crassulaceae; <i>Echeveria derenbergii</i>										1 (Cactus and succulents garden); 1 (Succulent trail)		2	Ornamental	Endemic to Mexico.
		Painted Lady													
22.	Crassulaceae; <i>Crassula capitella</i>										4 (Cactus and succulents garden); 2 (Succulent trail)		6	Ornamental	Native to South Africa.
		Campfire crassula													
23.	Crassulaceae; <i>Crassula ovata</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Kwazulu Natalin South Africa.
		Skinny fingers													
24.	Crassulaceae; <i>Crassula ‘Tom thumb’</i>										2 (Cactus and succulents garden); 2 (Succulent trail)		4	Ornamental	Native to South Africa
		Tom Thumb													
25.	Crassulaceae; <i>Crassula muscosa</i>										4 (Cactus and succulents garden); 2 (Succulent trail)		6	Ornamental	Native to South Africa and Namibia
		Watch chain													

26.	Crassulaceae; <i>Crassula ovata</i>	 Baby jade									1 (Cactus and succulents garden)		1	Ornamental	Native to the KwaZulu Natal and Eastern Cape provinces of South Africa, and Mozambique
27.	Didiereaceae; <i>Portulacaria afra</i>	 Jade plant									2 (Cactus and succulents garden)		2	Ornamental	Native to South Africa.
28.	Crassulaceae; <i>Cotyledon tomentosa</i>	 Bear paw									2 (Cactus and succulents garden)		2	Ornamental	Native to Africa.
29.	Euphorbiaceae; <i>Euphorbia tirucalli</i>	 Pencil Cactus	Under Appendix II (ENVIS)								1 (Cactus and succulents garden)		1	Ornamental	Native to Southern Africa
30.	Euphorbiaceae; <i>Euphorbia milii</i>	 Crown of thorns	Under Appendix II (ENVIS)								4 (Cactus and succulents garden)		4	Ornamental	Native to Madagascar.
31.	Euphorbiaceae; <i>Euphorbia trigona</i> 'rubra'	 African Milk Tree	Under Appendix II (ENVIS)								2 (Cactus and succulents garden)		2	Ornamental	Native to Africa.

32.	Euphorbiaceae; <i>Euphorbia royleana</i>	 Sullu spurge	Under Appendix II (ENVIS)								5 (Cactus and succulents garden)		5	Ornamental	Near Endemic.
33.	Asphodelaceae; <i>Gasteria bicolor</i>										5 (Cactus and succulents garden)		5	Ornamental	Native to South Africa.
34.	Asparagaceae; <i>Sansevieria trifasciata</i>	 Snake Plant									2 (Cactus and succulents garden)		2	Ornamental	Native to Tropical West Africa.
35.	Apocynaceae; <i>Adenium obesum</i>	 Desert rose									10 (Cactus and succulents garden)		10	Ornamental	Native to Sahel region.
36.	Agavaceae; <i>Agave angustifolia</i>	 Caribbean agave									4 (Cactus and succulents garden); 4 (Succulent trial)		8	Ornamental	Native to Mexico.
37.	Agavaceae; <i>Agave filifera</i>	 Thread Leaf Agave									2 (Cactus and succulents garden)		2	Ornamental	Native to Central Mexico.
38.	Agavaceae; <i>Agave geminiflora</i>	 Twin Flower Agave									2 (Cactus and succulents garden)		2	Ornamental	Endemic to Nayarit.

39.	Agavaceae; <i>Agave potatorum</i>										1 (Cactus and succulents garden); 2 (Succulent trial)		3	Ornamental	Native to Deseat area of Mexico.
		Butterfly agave													
40.	Agavaceae; <i>Agave desmettiana</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to Mexico.
		Smooth Agave													
41.	Aloaceae; <i>Haworthia cooperi</i> var. <i>picturata</i>										4 (Cactus and succulents garden); 2 (Succulent trial)		6	Ornamental	Native to South Africa.
		Cushion aloe													
42.	Aloaceae; <i>Haworthia fasciata</i>										3 (Cactus and succulents garden); 2 (Succulent trial) 5 (Cactus and succulents garden); 2 (Succulent trial)		12	Ornamental	Native to South Africa.
		Zebra Plant													
43.	Aloaceae; <i>Aloe 'pink blush'</i> .										2 (Cactus and succulents garden)		2	Ornamental	Native to South Africa
		Pink blush													
44.	Aloaceae; <i>Aloe spp.</i>										2 (Cactus and succulents garden) 4 (Cactus and succulents garden)		6	Ornamental	

45.	Aloaceae; <i>Aloe rauhii</i>										2 (Cactus and succulents garden) 5 (Cactus and succulents garden)		7	Ornamental	Native to Madagascar.
		Snowflake aloe													
46.	Aloaceae; <i>Aloe spp.</i>										1 (Cactus and succulents garden)		1	Ornamental	
47.	Aloaceae; <i>Dyckia bevifolia</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to central South America
		Sawblade													
48.	Aloaceae; <i>Aloe spp.</i>										2 (Cactus and succulents garden)		2	Ornamental	
49.	Aloaceae; <i>Aloe spp.</i>										2 (Cactus and succulents garden)		2	Ornamental	
50.	Aizoaceae; <i>Faucaria tigrina</i>										1(Cactus and succulents garden)		1	Ornamental	Endemic South Africa.
		Tigers's Jaw													
51.	Crassulaceae; <i>Echeveria agavoides</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.
		Lipstick plant													

52.	Crassulaceae; <i>Echeveria sp.</i>										2 (Cactus and succulents garden)		2	Ornamental	
53.	Crassulaceae; <i>Echeveria pulvinata</i>	 Chinelle plant									2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.
54.	Crassulaceae; <i>Echeveria elegans</i>	 Mexican snowball									2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.
55.	Crassulaceae; <i>Echeveria imbricata</i>	 Blue Rose									2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico
56.	Crassulaceae; <i>Pachyphytum viride</i>										2 (Cactus and succulents garden); 9 (Succulent trail)		11	Ornamental	Native to Mexico
57.	Crassulaceae; <i>Pachyphytum bracteosum</i>	 Silver Bracts									2 (Cactus and succulents garden); 2 (Succulent trail)		4	Ornamental	Native to Mexico
58.	Crassulaceae; <i>Pachyphytum hookeri</i>	 Hooker's pachyphytum									2 (Cactus and succulents garden); 2 (Succulent trial)		4	Ornamental	Native to Mexico.

59.	Asteraceae; <i>Senecio serpens</i>										2 (Cactus and succulents garden);2 (Succulent trail)		4	Ornamental	Endemic to South Africa.
		Blue Chalk stick													
60.	Asteraceae; <i>Senecio rowleyanus</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to South west &Africa.
		String of pearls													
61.	Crassulaceae; <i>Sempervivum tectorum</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Europe.
		Common houseleek													
62.	Crassulaceae; <i>Sempervivum arachnoideum</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Alps in Europe.
		Cob web													
63.	Apocynaceae; <i>Pachypodium lamerei</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to Madagascar.
		Madagascar Palm													
64.	Crassulaceae; <i>Angelina sedum</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to rocky, mountainous slopes in Europe and Asia.
		Stone crop													

65.	Crassulaceae; <i>Graptoveria 'Fred Ives'</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to California
66.	Aizoaceae; <i>Delosperma echinatum</i>	 Pickle plant									2 (Cactus and succulents garden)		2	Ornamental	Native to South Africa
67.	Agavaceae; <i>Yucca desmetiana</i>	 Yucca plant									2 (Cactus and succulents garden)		2	Ornamental	Native to Northern Mexico.
68.	Asphodelaceae; <i>Haworthia pentagona</i>	 Carrion plant									4 (Cactus and succulents garden)		4	Ornamental	Endemic to Southern Africa
69.	Crassulaceae; <i>Sedeveria rolly</i>										2 (Succulent trial)		2	Ornamental	Native to Australia
70	Cactaceae; <i>Acanthocereus tetragonus</i>	 Triangle cactus									5 (Cactus and succulents garden)		2	Ornamental	Native to Florida.
71	Cactaceae; <i>Acanthocereus tetragonus variegata</i>	 Fairy castle									2 (Cactus and succulents garden)		2	Ornamental	Native to Brazil

72	Cactaceae; <i>Selenicereus anthonyanus</i>	 Fishbone cactus									2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.
73	Cactaceae; <i>Astrophytum myriostigma quadricostatum</i>	 Bishop's hat									2 (Cactus and succulents garden)		2	Ornamental	Native to the highlands of northeastern and central Mexico.
74	Cactaceae; <i>Astrophytum myriostigma</i>	 Bishop's cap									2 (Cactus and succulents garden)		1	Ornamental	Native to Texas and central Mexico
75	Cactaceae; <i>Astrophytum asterias</i>	 Sand dollar									2 (Succulent trail)		2	Ornamental	Native to Texas.
76	Cactaceae; <i>Astrophytum asterias 'Super kabuto'</i>	 Sea Urchin									2 (Succulent trail)		2	Ornamental	Native to small parts of Texas in the United States and Mexico
77	Cactaceae; <i>Echinocereus pentalophus</i>	 Ladyfinger Cactus									1 (Cactus and succulents garden)		1	Ornamental	Native to North America.
78	Cactaceae; <i>Echinocactus grusonii</i>	 Golden barrel cactus	Endangered (IUCN)								6 (Cactus and succulents garden) 2 (Cactus and succulents garden)		8	Ornamental	Endemic to Mexico.

79	Cactaceae; <i>Mammillaria vetula</i>										2 (Cactus and succulents garden)		1	Ornamental	Endemic to Mexican states.
		Thimble Cactus													
80	Cactaceae; <i>Mammillaria elegans</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.
		Elephant Nipple cactus													
81	Cactaceae; <i>Mammillaria longimamma</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to Mexico.
		Pine apple Cactus													
82	Cactaceae; <i>Mammillaria prolifera</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.
		Texas Nipple Cactus													
83	Cactaceae; <i>Mammillaria elongata</i>										3 (Cactus and succulents garden) 2 (Cactus and succulents garden)		5	Ornamental	Native to Mexico.
		Lady Finger cactus													
84	Cactaceae; <i>Mammillaria grahamii</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.
		Arizon's Fishhook Cactus													
85	Cactaceae; <i>Mammillaria compressa</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to Mexico.
		Compressed Nipple Cactus													

86	Cactaceae; <i>Mammillaria confusa</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to Mexico.
		Wolly Nipple Cactus													
87	Cactaceae; <i>Mammillaria gracilis</i>										5 (Cactus and succulents garden)		5	Ornamental	Native to Mexico.
		Pincushion cactus													
88	Cactaceae; <i>Coryphantha sp.</i>										2 (Cactus and succulents garden)		2	Ornamental	
89	Cactaceae; <i>Coryphantha elephantidens</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to Mexico
		Elephant's tooth													
90	Cactaceae; <i>Cereus sp. forma monstruosa cristata</i>										1 (Cactus and succulents garden)		1	Ornamental	
91	Cactaceae; <i>Cereus albicaulis</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Brazil.
		Sweetpotato cactus													
92	Cactaceae; <i>Cereus peruvianus monstrose</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Rio de Janeiro in Brazil.
		Apple cactus													

93	Cactaceae; <i>Cereus sp.</i>										6 (Cactus and succulents garden)	6	Ornamental	
94	Cactaceae; <i>Austrocylindr opuntia subulata f. monstrosa</i>	 Eve's Needle									1 (Cactus and succulents garden)	1	Ornamental	Native to Australia and Europe.
95	Cactaceae; <i>Austrocylindr opuntia spp.</i>										1 (Cactus and succulents garden)	1	Ornamental	Native to South America.
96	Cactaceae; <i>Espostoa lanata</i>	 Peruvian Old man cactus									1 (Cactus and succulents garden)	1	Ornamental	Native to Northern Peru, Western Slope of Andes mountains.
97	Cactaceae; <i>Cephalocereus senilis</i>	 Old Man Cactus									4 (Cactus and succulents garden)	4	Ornamental	Native to Esatern Mexico.
98	Cactaceae; <i>Pilosocereus glauscens</i>	 Blue torch cactus									4 (Cactus and succulents garden)	4	Ornamental	Native to Brazil.

99	Cactaceae; <i>Notocactus leninghausii</i>	 Golden Ball cactus									1 (Cactus and succulents garden)		1	Ornamental	Native to Brazil.
100	Cactaceae; <i>Notocactus herteri</i>	 Notocactus									1 (Cactus and succulents garden) 1 (Cactus and succulents garden)		2	Ornamental	Endemic to Brazil.
101	Cactaceae; <i>Pereskia spathulata</i>	 Alfilerillo									2 (Cactus and succulents garden)		2	Ornamental	Native to Australia
102	Cactaceae; <i>Opuntia microdasys</i> <i>var. rufida</i>	 Red Bunny Ears cactus									2 (Cactus and succulents garden)		2	Ornamental	Endemic to Central & Northern Mexico.
103	Cactaceae; <i>Opuntia microdasys</i> <i>var. pallida</i>	 Bunny ear yellow cactus									8 (Cactus and succulents garden)		8	Ornamental	Native to Central & Northern Mexico.
104	Cactaceae; <i>Opuntia microdasys</i> <i>var. albispina</i>	 Bunny Ear white cactus									2 (Cactus and succulents garden)		2	Ornamental	Native to Mexico.

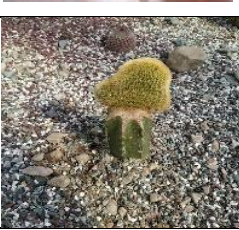
105	Cactaceae; <i>Opuntia monacantha f. monstrosa</i>										80 (Succulent trail)		80	Ornamental	Native to South America.
		Joseph's coat													
106	Cactaceae; <i>Opuntia auberi</i>										5 (Cactus and succulents garden)		5	Ornamental	Native to Central America in Cuba, Antilles Island.
		Prickly pear													
107	Cactaceae; <i>Opuntia indica</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Mexico.
		Barbary Fig													
108	Cactaceae; <i>Ferocactus horridus</i>										1 (Cactus and succulents garden)		1	Ornamental	Native to California and Mexico.
		Barrel Cactus													
109	Cactaceae; <i>Ferocactus hamatacanthus</i>										4 (Cactus and succulents garden) 2 (Cactus and succulents garden)		6	Ornamental	Mexico
		Turk's head													
110	Cactaceae; <i>Ferocactus latispinus</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Mexico.
		Devil's tongue													
111	Cactaceae; <i>Ferocactus macrodiscus</i>										2 (Cactus and succulents garden) 2 (Cactus and succulents garden)		4	Ornamental	Native to Mexico.

112	Asphodelaceae; <i>Haworthia retusa</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa.
113	Asphodelaceae. <i>Haworthia truncata</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Western South Africa.
114	Asparagaceae; <i>Agave victoria reginae</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Chihuahuan Desert of Meexico.
115	Asphodelaceae; <i>Haworthiacooperi</i> var. <i>cooperi</i>										2 (Cactus and succulent garden)		2	Ornamental	Endemic to South Africa.
116	Cactaceae, <i>Mammillaria plumosa</i>										2 (Cactus and succulent garden) 2 (Cactus and succulent garden)		4	Ornamental	Native to Northeastern Mexico.
117	Cactaceae; <i>Tephrocactusarticulatus</i> var. <i>papyracanthus</i>										2 (Cactus and succulent garden)		2	Ornamental	Distribution in Argentina.
118	Asphodelaceae. <i>Haworthia viscose</i> var. <i>torquoise</i>										2 (Cactus and succulent garden)		2	Ornamental	Endemic to Southern Africa.
119	Cactaceae; <i>Mammalariae longata</i> crest										2 (Cactus and succulent garden)		2	Ornamental	Native to Columbia, Canada.

120	Asparagaceae; <i>Agave tradewinds</i>										2 (Cactus and succulent garden)			Ornamental	Native to the hot and arid regions of the Americas.
		Trade wind Agave													
121	Crassulaceae <i>Orostachys boehmeri</i>										2 (Cactus and succulent garden)			Ornamental	Native to Japan.
		Dunecap													
122	Agavaceae; <i>Furcraeafoetida</i> 'mediopicta										2 (Cactus and succulent garden)			Ornamental	Native to America.
		Mauritius Hemp													
123	Apocynaceae; <i>Huernia schneideriana</i>										2 (Cactus and succulent garden)			Ornamental	Native to Southwest Tanzania
		Red Dragon Flower													
124	Crassulaceae; <i>Kalanchoe humilis</i>										2 (Cactus and succulent garden)			Ornamental	Native to Mozambique.
		Copper Spoons													
125	Crassulaceae; <i>Kalanchoe orgyalis</i>										2 (Cactus and succulent garden)			Ornamental	Native to Mozambique.
		Copper Spoons													
126	Crassulaceae; <i>Crassula tetragona</i>										2 (Cactus and succulent garden)			Ornamental	Native to Southern Africa.
		Miniature Pine Tree													

127	Cactaceae; <i>Cereus tetragonus</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Florida
		Triangle cactus													
128	Cactaceae; <i>Echinopsishuascha</i> var. <i>grandiflora</i>										2 (Cactus and succulents garden)		2	Ornamental	Native to Argentina
		Red Torch Cactus													
129	Euphorbiaceae ; <i>Euphorbia enopla</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
		Pincushion Euphorbia													
130	Cactaceae; <i>Opuntia tuna</i>										1 (Cactus and succulent garden)		1	Ornamental	Native range is Jamaica
131	Cactaceae; <i>Echinopsis</i> 'Red paramount'										2 (Cactus and succulent garden)		2	Ornamental	Native to South America
		Red Paramount													
132	Asteraceae; <i>Senecio jacobsenii</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Kenya and Tanzania.
		Trailing Jade Plan													
133	Asparagaceae; <i>Sansevieria trifasciata</i> moonshine										2 (Cactus and succulent garden)		2	Ornamental	Native to Euope; India & Africa.
		Snake Plant													

134	Crassulaceae; <i>Crassula sarmentosa</i>	 Jade Plant									2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa.
135	Crassulaceae; <i>Crassula sp.</i>										2 (Cactus and succulent garden)		2	Ornamental	
136	Cactaceae; <i>Mammillaria muehlenpfordtii</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Mexico
137	Asteraceae; <i>Senecio barbertonicus</i>	 Succulent bush									2 (Cactus and succulent garden)		2	Ornamental	Native to Southern Africa
138	Cactaceae; <i>Mammillaria petterssonii</i>										2 (Cactus and succulent garden) 2 (Cactus and succulent garden)		4	Ornamental	Native to Mexico
139	Crassulaceae; <i>Sedum lineare</i>	 Stonecrop									1 (Cactus and succulent garden) 2 (Cactus and succulent garden)		3	Ornamental	Native to East Asia
140	Cactaceae; <i>Echinofossulo crispatus</i>										1 (Cactus and succulent garden)		1	Ornamental	Native to Mexico
141	Cactaceae; <i>Coryphantha compacta</i>	 Pincushion Cactus									1 (Cactus and succulent garden)		1	Ornamental	Native to Mexico

142	Cactaceae; Unidentified										4 (Cactus and succulents garden)		4	Ornamental	
143	Cactaceae; Unidentified										2 (Cactus and succulent garden)		2	Ornamental	
144	Cactaceae; Unidentified										4 (Cactus and succulent garden)		4	Ornamental	
145	Cactaceae; Unidentified										2 (Cactus and succulent garden)		2	Ornamental	
146	Cactaceae; Unidentified										2 (Cactus and succulent garden)		2	Ornamental	
147	Cactaceae; Unidentified										2 (Cactus and succulent garden)		2	Ornamental	
148	Unidentified										2 (Cactus and succulent garden)		2	Ornamental	
149	Cactaceae; Unidentified										1 (Cactus and succulent garden)		1	Ornamental	

150	Cactaceae; Unidentified										1 (Cactus and succulent garden)		1	Ornamental	
151	Crassulaceae ; <i>Echeveria runyonii</i> cv. <i>Topsy Turvy</i> f. <i>cristata</i>	 Mexican hens									2 (Cactus and succulent garden)		2	Ornamental	Native to Mexico
152	Aizoaceae; <i>Cheiridopsis denticulata</i>	 Carpet weed									2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
153	Aizoaceae; <i>Titanopsis calcarea</i>	 Jewel plant									2 (Cactus and succulent garden)		2	Ornamental	Indigenous to the arid regions of South Africa and Namibia
154	Crassulaceae; <i>Crassula 'Buddha's Temple'</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
155	Crassulaceae ; <i>Echeveria pulvinata</i> 'Frosty'	 White Chenille Plant									2 (Cactus and succulent garden)		2	Ornamental	Native to Mexico
156	Euphorbiaceae; <i>Euphorbia francoisii</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Madagascar

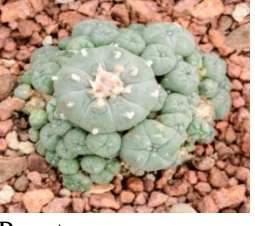
157	Asphodelaceae; <i>Haworthia limifolia</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to southern Africa
		Fairies washboard													
158	Aizoaceae; <i>Cheiridopsis brownii</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
159	Aizoaceae; <i>Trichodiadema densum</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
		Miniature desert rose													
160	Crassulaceae ; <i>Crassula falcata</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
		Airplane plant													
161	Apocynaceae; <i>Orbea carnososa</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Zimbabwe
162	Asphodelaceae; <i>Aloe haworthioides</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Madagascar
		Haworthia leaved Aloe													
163	Aizoaceae; <i>Lithops comptonii</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
		Living Stones													

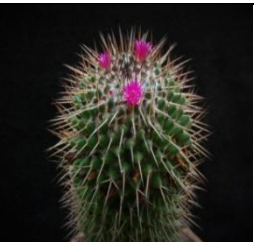
164	Aizoaceae; <i>Lithops lesliei</i>	 Living Stones									2 (Cactus and succulent garden) 6 (Cactus and succulent garden)		8	Ornamental	Native to South Africa
165	Aizoaceae; <i>Lithops hookeri</i>	 Living Stones									2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
166	Aizoaceae; <i>Pleiospilos nelii</i>	 Splitrock									2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
167	Aizoaceae; <i>Lithops aucampiae</i>	 Living Stones									2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
168	Apocynaceae; <i>Orbea dummeri</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to East Africa
169	Asphodelaceae; <i>Haworthia papillosa</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to South Africa
170	Asparagaceae; <i>Calibanus hookeri</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Mexico

171	Cactaceae; <i>Pseudorhipsalis ramulosa</i>	 Red Rhipsalis									2 (Cactus and succulent garden)		2	Ornamental	Native to Mexico
172	Cactaceae; <i>Rebutia heliosa grafted</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Mexico
173	Cactaceae; <i>Sulcorebutia rauschii grafted</i>										2 (Cactus and succulent garden)		2	Ornamental	Native to Bolivia
174	Cactaceae; <i>Pachypodium lamerei f. cristata</i>	 Crested Madagascar Palm									2 (Cactus and succulent garden)		2	Ornamental	Native to Madagascar
175	Euphorbiaceae; <i>Euphorbia flanaganii f. cristata</i>	 Green coral									2 (Cactus and succulent garden)		2	Ornamental	Native to Mexico
176	Asparagaceae; <i>Sansevieria cylindrica</i>	 Spear Sansevieria									2 (Cactus and succulent garden)		2	Ornamental	Native to Africa
177	Cactaceae; <i>Colocephalocereus purpureus</i>	 Purple Coleocephalocereus									4 (Cactus and succulents garden)		4	Ornamental	Native to Brazil

178	Cactaceae; <i>Epiphyllum oxypetalum</i>	 Queen of the night									4 (Cactus and succulents garden)		4	Ornamental	Native to Mexico
179	Cactaceae; <i>Gymnocalycium anisitsii</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Brazil
180	Cactaceae; <i>Gymnocalycium bicolor</i>	 Chin cactus									4 (Cactus and succulents garden)		4	Ornamental	Native to Argentina
181	Cactaceae; <i>Gymnocalycium bruchii</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Argentina
182	Cactaceae; <i>Gymnocalycium baldianum</i>	 Cordoba Naked Chalice Cactus									4 (Cactus and succulents garden) 2 (Cactus and succulent garden)		6	Ornamental	Native to Argentina
183	Cactaceae; <i>Gymnocalycium denudatum</i>	 Spider Cactus									4 (Cactus and succulents garden) 2 (Cactus and succulent garden)		6	Ornamental	Native to Brazil
184	Cactaceae; <i>Gymnocalycium gibbosum 'nobile'.</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Argentina

185	Cactaceae; <i>Gymnocalycium horridispinum</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to South Africa
186	Cactaceae; <i>Gymnocalycium horstii</i> <i>var.bueneckerii</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to South Africa
187	Cactaceae; <i>Gymnocalycium kemerae</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to South America
188	Cactaceae; <i>Gymnocalycium hypiacanthum</i>	 Moon cacti									4 (Cactus and succulents garden)		4	Ornamental	Native to South Africa
189	Cactaceae; <i>Gymnocalycium mihanovichii</i> 'Hiboton'	 Hibotan cactus									4 (Cactus and succulents garden)		4	Ornamental	Native to South America
190	Cactaceae; <i>Gymnocalycium mihanovichii friedrichii</i> (Orange, Pink, variegated)										4 (Cactus and succulents garden)		4	Ornamental	Native to South America
191	Cactaceae; <i>Gymnocalycium mihanovichii frierichii cristate</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to South America

192	Cactaceae; <i>Gymnocalycium mihanovichii</i> 'multicolor'										4 (Cactus and succulents garden)		4	Ornamental	
193	Cactaceae; <i>Gymnocalycium saglionis</i>										4 (Cactus and succulents garden) 3 (Cactus and succulents garden)		7	Ornamental	Native to South America
194	Cactaceae; <i>Hylocereus undatus</i>	 Vine like cactus									4 (Cactus and succulents garden)		4	Ornamental	Native to South America
195	Cactaceae; <i>Hylocereus lemairei</i>	 Pitayas									4 (Cactus and succulents garden)		4	Ornamental	Native to South America
196	Cactaceae; <i>Lophophora williamsii</i>	 Peyote									4 (Cactus and succulents garden)		4	Ornamental	Distrubated in southwest United States, northern Mexico, and Peru
197	Cactaceae; <i>Lophophora williamsii</i> <i>monstrous orange</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to northern Mexico
198	Cactaceae; <i>Mammillaria humboldtii</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Central Mexico

199	Cactaceae; <i>Mammillaria polythele</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Mexico
200	Cactaceae; <i>Mammillaria prolifera</i>	 Texas nipple cactus									4 (Cactus and succulents garden)		4	Ornamental	Native to Central America
201	Cactaceae; <i>Mammillaria pseuperbella</i>	 Pretty nipple cactus									4 (Cactus and succulents garden)		4	Ornamental	Native to Mexico
202	Cactaceae; <i>Mammillaria senilis</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Mexico
203	Cactaceae; <i>Mammillaria sphaerica</i>	 Pale mammillaria									4 (Cactus and succulents garden)		4	Ornamental	Native to south eastern Texas
204	Cactaceae; <i>Mammillaria spinosissima</i>	 Spiny pincushion cactus									4 (Cactus and succulents garden)		4	Ornamental	Native to Colombia and Venezuela

205	Cactaceae; <i>Matucana madisoniorum</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to Peru
206	Cactaceae; <i>Matucana aurantiaca</i>	 Orange matucana									4 (Cactus and succulents garden)		4	Ornamental	Native to Peru
207	Cactaceae; <i>Melocactus azureus</i>	 Melon cactus									4 (Cactus and succulents garden)		4	Ornamental	Native to Brazil
208	Cactaceae; <i>Melocactus behiense</i>	 Melocactus									4 (Cactus and succulents garden)		4	Ornamental	Native to Brazil
209	Cactaceae; <i>Melocactus ernestii</i>	 Melocactus									4 (Cactus and succulents garden)		4	Ornamental	Native to East Brazil
210	Cactaceae; <i>Myrtillocactus geometrizans</i>	 Blue Myrtle Cactus									4 (Cactus and succulents garden)		4	Ornamental	Native to Mexico
211	Crassulaceae; <i>Rhodiola trifida</i>			Patalthod	50					50			50	Ornamental	Native to Asia

212	Crassulaceae; <i>Rhodiola imbricate</i>			Patalthod	50					50			50	Ornamental	Native to Asia
213	Crassulaceae; <i>Rhodiola sinuata</i>	 Trifid Sedum		Patalthod	50					50			50	Ornamental	Native to Asia
214	Cactaceae; <i>Pereskiopsis aculeata</i>										4 (Cactus and succulents garden)		4	Ornamental	
215	Cactaceae; <i>Mammillaria vetula</i> <i>subsp. gracilis</i>										4 (Cactus and succulents garden)		4	Ornamental	
216	Crassulaceae; <i>Kalanchoe tomentosa</i>										4 (Cactus and succulents garden)		4	Ornamental	
217	Crassulaceae; <i>Kalanchoe gastonis-bonnieri</i>										4 (Cactus and succulents garden)		4	Ornamental	
218	Crassulaceae; <i>Sempervivum red tips</i>										4 (Cactus and succulents garden)		4	Ornamental	

219	Crassulaceae; <i>Pachyphytum Oviferum</i> Moonstone										4 (Cactus and succulents garden)		4	Ornamental	
220	Crassulaceae; <i>Echeveria pulidonis</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to central Mexico
221	Crassulaceae; <i>Echeveria</i> ‘Vampire Red Ball’										4 (Cactus and succulents garden)		4	Ornamental	
222	Crassulaceae; <i>Echeveria purpusorum</i>										4 (Cactus and succulents garden)		4	Ornamental	Endemic to Puebla and Oaxaca, Mexico.
223	Crassulaceae; <i>Echeveria</i> black prince										4 (Cactus and succulents garden)		4	Ornamental	
224	Crassulaceae; <i>Echeveria</i> 'Pinky'										4 (Cactus and succulents garden)		4	Ornamental	
225	Crassulaceae; <i>Echeveria</i> dark ice										4 (Cactus and succulents garden)		4	Ornamental	
226	Crassulaceae; <i>Echeveria</i> lola										4 (Cactus and succulents garden)		4	Ornamental	

227	Crassulaceae; <i>Senecio rowleyanus</i> <i>variegata</i>										4 (Cactus and succulents garden)		4	Ornamental	
228	Crassulaceae; <i>Crassula capitella</i> <i>Variegata</i>										4 (Cactus and succulents garden)		4	Ornamental	
229	Aizoaceae; <i>Lithops viridis</i>										4 (Cactus and succulents garden)		4	Ornamental	
230	Aizoaceae ; <i>Faucaria tuberculosa</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to southern Cape Provinces of South Africa.
231	Cactaceae; <i>Notocactus scopa</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to upland southern Brazil and Uruguay.
232	Cactaceae; <i>Notocactus mammulosa</i>										4 (Cactus and succulents garden)		4	Ornamental	
233	Cactaceae; <i>Notocactus schumannianus</i>										4 (Cactus and succulents garden)		4	Ornamental	
234	Cactaceae; <i>Notocactus chrysacanthion</i>										4 (Cactus and succulents garden)		4	Ornamental	

235	Cactaceae; <i>Mammillaria bombycina</i>										4 (Cactus and succulents garden)		4	Ornamental	
236	Cactaceae; <i>Mammillaria schiedeana</i>										4 (Cactus and succulents garden)		4	Ornamental	
237	Cactaceae; <i>Rebutia deminuta</i>										4 (Cactus and succulents garden)		4	Ornamental	
238	Cactaceae; <i>Mammillaria hahniana</i>										4 (Cactus and succulents garden)		4	Ornamental	
239	Cactaceae; <i>Mammillaria Hahniana</i> - Multi Headed										4 (Cactus and succulents garden)		4	Ornamental	
240	Cactaceae; <i>Mammillaria zeilmanniana</i>										4 (Cactus and succulents garden)		4	Ornamental	
241	Anacampserotaceae; <i>Anacampseros Rufescens</i>										4 (Cactus and succulents garden)		4	Ornamental	
242	Anacampserotaceae; <i>Anacampseros Rufescens variegata</i>										4 (Cactus and succulents garden)		4	Ornamental	

243	Cactaceae; <i>Hildewintera aureispina</i>										4 (Cactus and succulents garden)		4	Ornamental	
244	Cactaceae; <i>Mammillaria parkinsonii</i>										4 (Cactus and succulents garden)		4	Ornamental	
245	Cactaceae; <i>Mammillaria carmenae</i>										4 (Cactus and succulents garden)		4	Ornamental	
246	Cactaceae; <i>Notocactus magnificus</i>	 Balloon cactus									4 (Cactus and succulents garden)		4	Ornamental	
247	Cactaceae; <i>Mammillaria Toluca</i>										4 (Cactus and succulents garden)		4	Ornamental	
248	Euphorbiaceae; <i>Euphorbia grandicornis</i>	 Cow's Horn									4 (Cactus and succulents garden)		4	Ornamental	
249	Bromeliaceae; <i>Cryptanthus zonatus</i>	 Zebra Plant									4 (Cactus and succulents garden)		4	Ornamental	

250	Bromeliaceae; <i>Cryptanthus zonatus</i> 'Zebrinus'										4 (Cactus and succulents garden)		4	Ornamental	
		Zebra Plant													
251	Asphodelaceae; <i>Gasteria sp.</i>										4 (Cactus and succulents garden)		4	Ornamental	
252	Cactaceae; <i>Leuchtenbergia principis</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to north-central Mexico
253	Euphorbiaceae; <i>Euphorbia lactea</i> 'White Ghost'										4 (Cactus and succulents garden)		4	Ornamental	
254	Apocynaceae; <i>Stapelia sp.</i>										4 (Cactus and succulents garden)		4	Ornamental	
255	Crassulaceae; <i>Echeveria setosa</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to semi-desert areas of Mexico.
		Mexican fire cracker													
256	Aloaceae; <i>Aloe albiflora</i>										5 (Cactus and succulents garden)		5	Ornamental	Indigenous to Madagascar
257	Cactaceae; <i>Ariocarpus retusus</i>										2 (Cactus and succulents garden)		2	Ornamental	Found mainly in Mexico

258	Asparagaceae; <i>Albuca concordiana</i>										3 (Cactus and succulents garden)		3	Ornamental	Native to southern Namibia, Cape, Karoo and the south-eastern cape in South Africa.
259	Asparagaceae; <i>Drimiopsis Kirkii</i>										3 (Cactus and succulents garden)		3	Ornamental	
260	Asparagaceae; <i>Ledebouria socialis</i>	 Leopard lily									2 (Cactus and succulents garden)		2	Ornamental	Native to the Eastern Cape Province of South Africa.
261	Apocynaceae; <i>Huernia pillansii crest</i>										4 (Cactus and succulents garden)		4	Ornamental	Native to the Cape Provinces of South Africa.
262	Asclepiadaceae; <i>Stapelianthus decaryi</i>										4 (Cactus and succulents garden)		4	Ornamental	
263	Asphodelaceae; <i>Gasteraloe 'Green Ice'</i>										2 (Cactus and succulents garden)		2	Ornamental	
264	Euphorbiaceae; <i>Euphorbia tithymaloides</i>	 Redbird flower									5 (Public Health Garden)		5	Medicinal and Ornamental	Native to tropical and subtropical North America and Central America.

19 species are yet to be identified.

XV. Aquatic Plant Species;
Aquatic Plant Species are being conserved at Research Range, Haldwani:

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt./ Indian Biodiversity Portal)	Nursery						Total	Experiment Site	Preservation Plot	Grand Total	Use	Native Region
				Nursery Name											
				1		2		3							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1.	Nymphaeaceae; <i>Nymphaea alba</i> L.	 Water lily	Least Concern (IUCN)								25 (Aquatic Demonstaration area) 15 (Aquatic area)		40	Ornamental	Native to North Africa.
2.	Nymphaeaceae; <i>Nymphaea peach glow</i>	 Water lily									30 (Aquatic Demonstaration area) 10 (Aquatic area)		40	Ornamental	
3.	Nymphaeaceae; <i>Nymphaea 'Antares'</i>	 Night blooming water lily									1(Aquatic Demonstaration area)		1	Ornamental	
4	Nymphaeaceae; <i>Nymphaea caerulea</i> Savigny	 Water lily									10 (Aquatic Demonstaration area)		10	Ornamental	Nile river and other parts of East Africa.
5	Nymphaeaceae; <i>Nymphaea nouchali</i> Burm.f.	 Water lily									10 (Aquatic Demonstaration area)		10	Ornamental	Native to Southeast Asia.

6	Nymphaeaceae; <i>Nymphaea</i> <i>'Aphrodite'</i>										10 (Aquatic Demonstaration area)		10	Ornamental	
		Tropical water lily													
7	Araceae; <i>Pistia stratiotes</i> L.		Least concern (IUCN)								30(Aquatic Demonstaration area)		30	Ornamental	First discovered from the Nile near Lake Victoria in Africa.
		water cabbage/ water lettuce													
8	Salviniaceae; <i>Salvinia natans</i> (L.) All.		Least concern (IUCN)								10(Aquatic Demonstaration area)		10	Ornamental	Native to Algeria, Egypt, Libya, Morocco, and Tunisia
		Floating fern													
9	Onagraceae; <i>Ludwigia sedioides</i> (Humb. & Bonpl.) H. Hara										1 (Aquatic Demonstaration area)		1	Ornamental	Native to Brazil and Venezuela.
		Water mosaic													
10	Alismataceae; <i>Hydrocleys nymphoides</i> (Hum.& Bon. ex Willd.) Buchenau										1(Aquatic Demonstaration area)		1	Ornamental	Native to Central and South America
		Water poppy													
11	Menyanthaceae; <i>Nymphoides geminata</i> (R. Br.) Kuntze										1(Aquatic Demonstaration area)		1	Ornamental	Native to eastern Australia.
		Yellow Snowflake													
12	Menyanthaceae; <i>Nymphoides cristata</i>										1(Aquatic Demonstaration area)		1	Ornamental	Native to tropical Asia.
		Floating heart													

13	Nymphaeaceae; <i>Nuphar lutea</i> Smith										1 (Aquatic Demonstaration area)		1	Ornamental and Medicinal	Native to temperate regions of Europe, NW Africa, and western Asia.
		Yellow water lily													
14	Araceae; <i>Colocasia esculenta</i> (L.) Schott		Least concern (IUCN)								1(Aquatic Demonstaration area)		1	Edible	
		Taro													
15	Cyperaceae; <i>Cyperus haspan</i> L.										1 (Aquatic Demonstaration area)		1	Ornamental	Native range is Tropics &Subtropical regions of southern Asia, Madagascar and Africa.
		Dwarf Papyrus													
16	Araliaceae; <i>Hydrocotyle vulgaris</i> L.		Least concern (IUCN)								1 (Aquatic Demonstaration area)		1	Ornamental	Native to N. Africa and Europe.
		Copper coin													
17	Cannaceae; <i>Canna glauca</i> L.										3 (Aquatic Demonstration area)		3	Ornamental	Native to the wetlands of tropical America.
		Water canna													
18	Heliconiaceae; <i>Heliconia rostrata</i> ruiz & Pavon										1(Aquatic Demonstration area)		1	Ornamental	Native to the tropical Americas.
19	Apiaceae; <i>Hydrocotyle verticillata</i> Thunb.										1(Aquatic Demonstration area)		2	Ornamental	Native range is Tropical & Subtropical America.

20	Nelumbonaceae; <i>Nelumbo nucifera</i> Gaertn.		Data deficient (IUCN)								2(Aquatic Demonstration area)		4	Ornamental and Medicinal	Native to Central and northern India.
21	Apiaceae; <i>Centellia asiatica</i> (L.)Urban	 Mandukparni	Least concern (IUCN)	Tangsa	50					50	100 (RET plot, Shyampur); 15000 (Medicinal conservatory, Haldwani) 20 (Public Health Garden)		15170	Medicinal	Wetlands in Asia.
22	Alismataceae; <i>Echinodorous bleherae</i> Rataj	 Amazon sword									2(Aquatic Demonstration area)		2	Ornamental	Nativeto Cuba, Central America, and South America as far south as Brazil and Bolivia
23	Lemnaceae; <i>Lemna minor</i> L.	 Duckweed	Least concern (IUCN)								200(Aquatic Demonstration area)		200	Bioremedati on a and Livestock feed	Native throughout most of Africa, Asia , Europe and N orth America
24	Pontederiaceae; <i>Eichhornia crassipes</i>										8(Aquatic Demonstration area)		8	Ornamental	Native to the Amazon basin
25	Iridaceae; <i>Iris pseudacorus</i> L.		Least concern (IUCN)								6(Aquatic Demonstration area)		6	Ornamental	Native to Europe, western Asia and northwest Africa
26	Pontederiaceae; <i>Monochoria elata</i>										1(Aquatic Demonstration area)		1	Ornamental	

27	Pontederiaceae; <i>Monochoria vaginalis</i>													Ornamental	Native to temperate and tropical Asia.
28	Linderniaceae; <i>Hemianthus callitrichoides</i> Griseb.	 Dwarf baby tears									5(Aquatic Demonstration area)		5	Ornamental	Native to the islands of The Bahamas, Cuba, Hispaniola, Jamaica, and Puerto Rico.
29	Linderniaceae; <i>Micranthemum tweediei</i>	 Montecarlo pearlweed									5(Aquatic Demonstration area)		5	Ornamental	
30	Nymphaeaceae; <i>Nymphaea</i> ‘Southern Charm’	 Purple joy									5(Aquatic Demonstration area)		5	Ornamental	
31	Nymphaeaceae; <i>Nymphaea candida</i> J. Presl	 White Water Lily									5(Aquatic Demonstration area)		5	Ornamental	Native to quiet freshwater habitats in Eurasia
32	Nymphaeaceae; <i>Nymphaea</i> ‘Almost Black’	 Black Princess Water lily									5(Aquatic Demonstration area)		5	Ornamental	
33	Nymphaeaceae; <i>Nymphaea</i> "Jakkaphong"	 Jakkaphong									5(Aquatic Demonstration area)		5	Ornamental	

34	Nelumbonaceae; <i>Nelumbo lutea</i> Willd.	 Yellow Lotus									5(Aquatic Demonstration area)		5	Ornamental	Native to North America.
35	Nelumbonaceae; <i>Nelumbo 'Snow White '</i>	 Snow white Lotus									5(Aquatic Demonstration area)		5	Ornamental	
36	Nelumbonaceae; <i>Nelumbo 'Drop Blood '</i>	 Drop Blood Lotus									5(Aquatic Demonstration area)		5	Ornamental	
37	Nymphaeaceae; <i>Nymphaea 'Siam Jasmine</i>	 'Siam Jasmine Waterlily									5(Aquatic Demonstration area)		5	Ornamental	
38	Nelumbonaceae; <i>Nelumbo ' Bing Lei Furen'</i>	 Bing Lei Furen Lotus									5(Aquatic Demonstration area)		5	Ornamental	=
39	Nelumbonaceae; <i>Nelumbo nucifera 'Boli Gongzhu'</i>	 'Boli Gongzhu'									5(Aquatic Demonstration area)		5	Ornamental	
40	Nelumbonaceae; <i>Nelumbo New Star Bowl</i>	 New Star Bowl									5(Aquatic Demonstration area)		5	Ornamental	

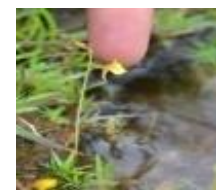
41	Nelumbonaceae; <i>Nelumbo 'Micro Spark'</i>										5(Aquatic Demonstration area)		5	Ornamental	
		Micro Lotus													
42	Nelumbonaceae; <i>Nelumbo spp.</i>										5(Aquatic Demonstration area)		5	Ornamental	
		256 Pettaled Lotus													
43	Nymphaeaceae; <i>Euryale ferox</i>										2 (Aquatic Demonstration area)		2	Ornamental and Edible	Native to eastern Asia and southern Asia
		Makhana													
44	Ranunculaceae; <i>Ranunculus sceleratus</i>										1 (Aquatic Demonstration area)		1	Medicinal	Native to North America and Eurasia
		Jal Dhaniya													
45	Trapaceae; <i>Trapa natans</i>										50 (Aquatic Demonstration area)		50	Medicinal and Edible	Native to Europe, Asia and Africa
		Water Chestnut													
46	Nelumbonaceae; <i>Nelumbo spp.</i>										1 (Aquatic Demonstration area)		1	Ornamentta l	-
		Sahastra Kamal													
47	Butomaceae; <i>Butomus umbellatus</i>										1 (Aquatic Demonstration area)		1	Ornamental	Native to Europe and Asia
		Flowering Rush													

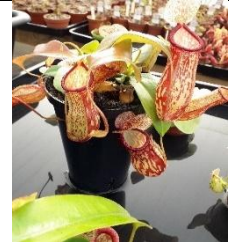
48	Alismataceae; <i>Sagittaria japonica alba</i>	 Arrowhead Plena									1 (Aquatic Demonstration area)		1	Ornamental	Native to wetlands most of Europe from Ireland and Portugal to Finland and Bulgaria
49	Nymphaeaceae; <i>Victoria amazonica</i>	 Victoria Lily									10(Aquatic Demonstration area) 10 (Aquatic area)		10	Ornamental	Native to the Guyana and tropical South America
50	Nelumbonaceae; <i>Nelumbo nucifera 'Zhizun Qianban'</i>	 1000 Petal lotus									2 (Aromatic Garden, Lalkuan)		2	Ornamental	First discovered in southern China in 2009.

- 2 species is yet to be identified.

XVI. Insectivorous Species:

Insectivorous Species are being conserved at Mandal, Research Range Gopeshwar and Haldwani.

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt./ Indian Biodiversity Portal)	Nursery								Total	Experiment Site	Preservation Plot	Grand Total	Use	Native Region
				Nursery Name													
				1		2		3		4							
				Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant						
1.	Droseraceae; <i>Drosera peltata</i> Sm. ex Willd.	 Mukhjali	Least Concern IUCN Red List	Mandal	30	Patalthod	50					30			80	Medicinal	India, China, Japan, Nepal and Philippines.
2	Lentibulariaceae; <i>Utricularia brachiata</i> Oliv.		Small population / Rare Status of insectivorous plants in northeast India Volume 43 June 2014 , K. K. Rawat and K. Giri	Mandal	50							50			50		Endemic to northeast India.
3	Lentibulariaceae; <i>Utricularia striatula</i> Sm.		Least Concern IUCN Red List	Mandal	100							100			100		Endemic to northeast India.
4	Lentibulariaceae; <i>Utricularia scandens</i> Benj			Mandal	100							100			100		Africa, China, India, Nepal, Thailand and Malaysia.
5.	Lentibulariaceae; <i>Utricularia kumaonsis</i> Oliver.			Mandal	10							10			10		Endemic to Himalaya

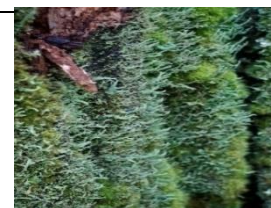
6.	Nepenthaceae; <i>Nepenthes ventrata</i>			Haldwani	2	Dehradun	25					27			27		
7.	Nepenthaceae; <i>Nepenthes mirabilis</i>			Haldwani	2	Dehradun	15					17			17		Native to Hong Kong
8.	Nepenthaceae; <i>Nepenthes smilesii</i>			Haldwani	2							2			2		Native to northeastern Thailand, southern Laos, Cambodia, and Vietnam.
9	Nepenthaceae; <i>Nepenthes gaya</i>			Dehradun	20							20	2 (Insectivorous demonstration Area)		22		
10	Nepenthaceae; <i>Nepenthes mirabilis</i> <i>x viking</i>			Dehradun	17							17	2 (Insectivorous demonstration Area)		19		
11	Droseraceae; <i>Drosera adelae</i>			Dehradun	22							22	2 (Insectivorous demonstration Area)		24		
12	Droseraceae; <i>Drosera spatulata</i>			Dehradun	24							24	2 (Insectivorous demonstration Area)		26		
13	Droseraceae; <i>Drosera binata</i> <i>extrima</i>			Dehradun	22							22	2 (Insectivorous demonstration Area)		24		
14	Droseraceae; <i>Drosera beleziana</i>			Dehradun	20							20	2 (Insectivorous demonstration Area)		22		

15	Droseraceae; <i>Drosera filliformis</i>			Dehradun	8							8	2 (Insectivorous demonstration Area)		10		
16	Droseraceae; <i>Drosera tokaiensis</i>			Dehradun	8							8	2 (Insectivorous demonstration Area)		10		
17	Droseraceae; <i>Drosera capillaries</i>			Dehradun	27							27	2 (Insectivorous demonstration Area)		29		
18	Sarraceniaceae; <i>Sarracenia leucophylla x psittacina</i>												2 (Insectivorous demonstration Area)		2		
19	Sarraceniaceae; <i>Sarracenia catesbaei</i>			Dehradun	17							17	2 (Insectivorous demonstration Area)		19		
20	Nepenthaceae; <i>Nepenthes x smilesii</i>			Dehradun	17							17	2 (Insectivorous demonstration Area)		19		
21	Droseraceae; <i>Drosera madagascarensis</i>												2 (Insectivorous demonstration Area)		2		
22	Nepenthaceae; <i>Nepenthes hookeriana</i>			Dehradun	17							17	2 (Insectivorous demonstration Area)		19		
23	Droseraceae; <i>Drosera burmannii</i>			Dehradun	24							24	2 (Insectivorous demonstration Area)		26		

24	Sarraceniaceae; <i>Sarracenia psittacina</i>												2 (Insectivorous demonstration Area)		2		
25	Droseraceae; <i>Dionaea muscipula</i>			Dehradun	8							8	2 (Insectivorous demonstration Area)		10		
26	Sarraceniaceae; <i>Sarracenia x wrigleyana</i> <i>Sarracenia 'Scarlet Belle'</i>			Dehradun	18							18			18		
27	Droseraceae; <i>Drosera paradoxa</i>			Dehradun	20							20			20		
28	Sarraceniaceae; <i>Sarracenia x wrigleyana</i>												2 (Insectivorous demonstration Area)		2		

XVII. Lichen Species:

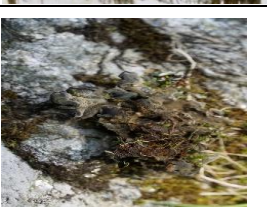
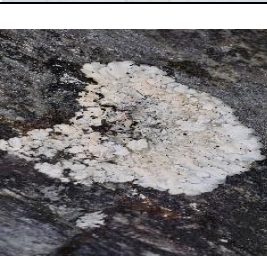
Lichen Species are being conserved at Munsyari, Research Range, Pithoragarh.

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttarakhand Govt. / Indian Biodiversity Portal)	Nursery								Experiment Site	Preservation Plot	Grand Total	Use	Native Region	
				Nursery Name													Total
				1		2		3		4							
				Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery Name	No. Of Plant						
1	Megasporaceae; <i>Aspicilia caesiocinerea</i> (L.) Korber											Patalthod				Indian subcontinent	
2	Parmeliaceae; <i>Bulbothrix sensibilis</i> (J. Steiner & Zahlbr.) Hale											Pataltho				Indian and Sri Lanka	
3	Teloschistaceae; <i>Caloplaca himalayana</i> .											Patalthod				India, Bhutan , China and Japan	
4	Parmeliaceae; <i>Cetrelia cetranooides</i> (Del. ex Duby) W. Culb. & C. Culb											Patalthod				India , Nepal and China	
5	Chrysothricaceae <i>Chrysothrix chlorina</i>											Patalthod				India , Nepal and China	
6	Cladoniaceae; <i>Cladonia chlorophaea</i>											Patalthod				India, Bhutan , China and Japan	

7	Cladoniaceae; <i>Cladonia coniocraea</i> (Florke) Spreng.													Patalthod			Antimicrobial	India, Nepal
8	Cladoniaceae; <i>Cladonia corniculata</i> Ahti & Kashiw.													Patalthod			Antimicrobial	India, S. Africa and Australia
9	Cladoniaceae; <i>Cladonia squamulosa</i> Hoffm.													Patalthod			Antimicrobial	India, Nepal and Sri Lanka
10	Coccocarpiaceae; <i>Coccocarpia erythroxyli</i>													Patalthod				India, Bhutan , China and Japan
11	Verrucariaceae; <i>Dermatocarpon miniatum</i> (L.) Mann													Patalthod				India and Nepal
12	Parmeliaceae; <i>Everniastrum cirrhatum</i> (Fr.) Hale													Patalthod			Food purpose	India, Nepal, Sri Lanka, S. China and Japan
13	Parmeliaceae; <i>Everniastrum nepalensis</i> (Fr.) Hale													Patalthod			Food purpose	India , Nepal, Bhutan, China and Taiwan
14	Parmeliaceae; <i>Flavoparmelia capirata</i> (L.) Hale													Patalthod				India, Nepal, Sri Lanka, China and Japan
15	Parmeliaceae; <i>Flavopunctilea flaventior</i> (Stirton) Hale													Patalthod				India, Nepal, China and Japan
16	Graphidaceae; <i>Graphis scripta</i> (L.) Ach.													5Patalthod				India and Nepal

17	Physiaceae; <i>Heterodermia leucomelos</i> (L.) Poelt												Patalthod				India, Nepal, Sri Lanka, East and South East Asia and Africa
18	Physiaceae; <i>Heterodermia dactyliza</i>												Patalthod				India, Bhutan , China and Japan
19	Physiaceae; <i>Heterodermia diademata</i>												Patalthod				India, Bhutan , China and Japan
20	Physiaceae; <i>Heterodermia comosa</i>												Patalthod				India, Bhutan , China and Japan
21	Physiaceae; <i>Heterodermia speciosa</i>												Patalthod				India, Bhutan , China and Japan
22	Physiaceae; <i>Heterodermia pseudospeciosa</i>												Patalthod				India, Bhutan , China and Japan
23	Parmeliaceae; <i>Hypotrachyna exsecta</i>												Patalthod				India, Bhutan , China and Japan
24	Teloschistaceae; <i>Ioplaca pindarensis</i> (Rasanen) Poelt & Hinter.												Patalthod				Himalayas
25	Lecanoraceae; <i>Lecanora achroa</i>												Patalthod				India, Bhutan , China and Japan
26	Lecanoraceae; <i>Lecanora concilians</i>												Patalthod				India, Bhutan , China and Japan

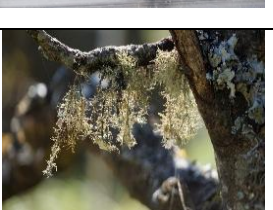
27	Lecanoraceae; <i>Lecanora fimbriatula</i>													Patalthod				India, Bhutan , China and Japan
28	Lecanoraceae; <i>Lecanora flavidofusca</i>													Patalthod				India, Bhutan , China and Japan
29	Lecanoraceae; <i>Lecidella elaeochroma</i>													Patalthod				India, Bhutan , China and Japan
30	Lecanoraceae; <i>Lecanora helva</i>													Patalthod				India, Bhutan , China and Japan
31	Lecanoraceae; <i>Lecanora japonica</i>													Patalthod				India, Bhutan , China and Japan
32	Lecanoraceae; <i>Lecanora sulphurescens</i>													Patalthod				India, Bhutan , China and Japan
33	Collemataceae; <i>Leptogium brunitae</i>													Patalthod				India, Bhutan , China and Japan
34	Collemataceae; <i>Leptogium denticulatum</i>													Patalthod				India, Bhutan , China and Japan
35	Collemataceae; <i>Leptogium pedicellatum</i>													Patalthod				India, Bhutan , China andJapan
36	Collemataceae; <i>Leptogium saturninum</i>													Patalthod				India, Bhutan , China and Japan

37	Collemataceae; <i>Leptogium trichophorum</i>													Patalthod				India, Bhutan , China and Japan
38	Lobariaceae; <i>Lobaria kurokawae</i>													Patalthod				India, Bhutan , China and Japan
39	Lobariaceae; <i>Lobaria pindarensis</i>													Patalthod				India, Bhutan , China and Japan
40	Lobariaceae; <i>Lobaria retigera</i>													Patalthod				India, Bhutan , China and Japan
41	Parmeliaceae; <i>Myelochroa entotheiochroa</i>													Patalthod				India, Bhutan , China and Japan
42	Nephromataceae; <i>Nephroma helveticum</i>													Patalthod				India, Bhutan , China and Japan
43	Parmeliaceae; <i>Nephromopsis pallescens</i>													Patalthod				India, Bhutan , China and Japan
44	Ochrolechiaceae; <i>Ochrolechia rocella</i>													Patalthod				India, Bhutan , China and Japan
45	Parmeliaceae; <i>Parmelinella wallichian</i>													Patalthod				India, Bhutan , China and Japan

46	Parmeliaceae; <i>Parmotrema austrosinensis</i>													Patalthod				India, Bhutan , China and Japan
47	Parmeliaceae; <i>Parmotrema hababianum</i>													Patalthod				India, Bhutan , China and Japan
48	Parmeliaceae; <i>Parmotrema mesotropu</i>													Patalthod				India, Bhutan , China and Japan
49	Parmeliaceae; <i>Parmotrema nilgherrense</i>													Patalthod				India, Bhutan , China and Japan
50	Parmeliaceae; <i>Parmotrema reticulatum</i>													Patalthod				India, Bhutan , China and Japan
51	Parmeliaceae; <i>Parmotrema tinctor</i>													Patalthod				India, Bhutan , China and Japan
52	Peltigeraceae; <i>Peltigera pindarensis</i> D.D Awasti & M. Joshi													Patalthod				India and Nepal
53	Peltigeraceae; <i>Peltigera dolichorrhiz</i>													Patalthod				India, Bhutan , China and Japan

54	Peltigeraceae; <i>Peltigera polydactylon</i>												Patalthod				India, Bhutan , China and Japan
55	Peltigeraceae; <i>Peltigera rufescens</i>												Patalthod				India, Bhutan , China and Japan
56	Pertusariaceae; <i>Pertusaria leucosora</i>												Patalthod				Himalaya and South India
57	Pertusariaceae; <i>Pertusaria coronata</i>												Patalthod				India, Bhutan , China and Japan
58	Pertusariaceae; <i>Pertusaria quassaie</i>												Patalthod				India, Bhutan , China and Japan
59	Physciaceae; <i>Phaeophysia hispidula</i> (Ach.) Moberg												Patalthod				India , Nepal and tropical and subtropical region of the world
60	Lecideaceae; <i>Porpidia albocoerulescens</i>												Patalthod				India, Bhutan , China and Japan
61	Lecideaceae; <i>Porpidia macrocarpa</i>												Patalthod				India, Bhutan , China and Japan

62	Parmeliaceae; <i>Myelochroa arulenta</i>													Patalthod				India, Bhutan , China and Japan
63	Pyrenulaceae; <i>Pyrenula introducta</i>													Patalthod				India, Bhutan , China and Japan
64	Ramalinaceae; <i>Ramalina sinensis</i> Jatta													Patalthod			Food purpose / Perfume industry	China, S. E. Asia and Europe, India and Nepal
65	Ramalinaceae; <i>Ramalina conduplicans</i> Vain													Patalthod			Food purpose / Perfume industry	East Asia, India and Nepa
66	Ramalinaceae; <i>Ramalina hossei</i>													Patalthod				India, Bhutan , China and Japan
67	Rhizocarpaceae; <i>Rhizocarpon geographicum</i>													Patalthod				India, Bhutan , China and Japan
68	Stereocaulaceae; <i>Stereocaulon foliolosum</i>													Patalthod				India, Bhutan , China and Japan

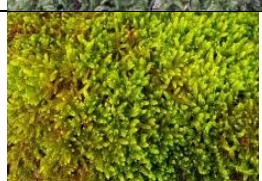
69	Stereocaulaceae; <i>Stereocaulon paradoxum</i>												Patalthod				India, Bhutan , China and Japan
70	Stereocaulaceae; <i>Stereocaulon pomiferum</i>												Patalthod				India, Bhutan , China and Japan
71	Stereocaulaceae; <i>Stereocaulon myriocarpum</i> Th. Fr.												Patalthod				India , Nepal, Bhutan, China and Taiwan
72	Loabariaceae; <i>Sticta</i> sp.												Patalthod				India, Bhutan , China and Japan
73	Parmeliaceae; <i>Sulcaria sulcata</i>												Patalthod				India, Bhutan , China and Japan
74	Umbilicariaceae; <i>Umbilicaria indica</i>												Patalthod				India, Bhutan , China and Japan
75	Umbilicariaceae; <i>Umbilicaria yunnana</i>												Patalthod				India, Bhutan , China and Japan
76	Parmeliaceae; <i>Usnea eumitrioides</i>												Patalthod				India, Bhutan , China and Japan
77	Parmeliaceae; <i>Usnea longissima</i> Ach.												Patalthod			Medicin al	India, Nepal , China and Japan

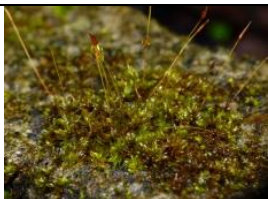
78	Parmeliaceae; <i>Usnea orientalis</i> Mot.													Patalthod				India, Bhutan , China and Japan
79	Parmeliaceae; <i>Usnea pectinata</i> Taylor													Patalthod			Bird nests	India, China Malaysia and Thailand
80	Parmeliaceae; <i>Usnea rubicunda</i>													Patalthod				India, Bhutan , China and Japan
81	Parmeliaceae; <i>Usnea spinulosa</i>													Patalthod				India, Bhutan , China and Japan
82	Verrucariaceae; <i>Verrucaria acrotell</i>													Patalthod				India, Bhutan , China and Japan
83	Chrysothricaceae; <i>Chrysothrix candelaris</i>													Patalthod			Bio Indicato r	India, Bhutan , China and Japan
84	Candelariaceae; <i>Candelaria concolor</i>													Patalthod			Bio Indicato r	India, Bhutan , China and Japan
85	Collamataceae; <i>Collema auriforme</i>													Patalthod			Bio Indicato r	India, Bhutan , China and Japan

XVIII. Bryophyte species:

Bryophyte Species are being conserved at Lingadhar, Research Range, Gaja.

A- Moss species

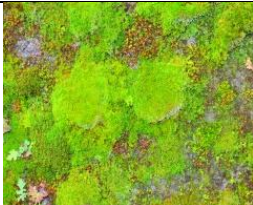
S. No	Scientific Name	Local Name and Photo	Threat Status (IUCN/Biodiversity Board/ENVIS /BSI/Uttarakhand and Govt. / Indian Biodiversity Portal)	Nursery						Total	Experimental Site	Preservation Plot	Total No. Of Plant	Use	Native Region		
				Nursery Name													
				1		2		3									
				Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant								
1	Entodontaceae; <i>Entodon plicatus</i> C. Muell.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Southeast Asia		
2	Anomodontaceae; <i>Herpetineuron toccoeae</i> (Sull. & Lesq.) Cardot										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation			
3	Trachypodaceae; <i>Trachypodopsis crisputula</i> (Hook.) Fleisch										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation			
4	Hypnaceae; <i>Hypnum cupressiforme</i> Hedw.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation and Ornamental	Found in all continents except Antarctica.		
5	Polytrichaceae; <i>Atrichum obtusulum</i> (C. Muell.) Jaeg.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Sikkim, East Nepal, Western Himalaya, Mussoorie, Kerala.		
6	Bryaceae; <i>Rhodobryum roseum</i> (Hedw.) Limpr.	 Rose Moss									Moss Garden Lingadhar (Sariyataal)			Soil moisture conservati and Ornamental	Found throughout most of the continents.		

7	Bryaceae; <i>Bryum capillare</i> L. ex Hedw.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	South & North India, China, Central Asia, North & Central Africa, North & South America.
8	Thuidiaceae; <i>Anomodon minor</i> (Hedw.) Fuernr.	 Rounded tongue moss									Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	East Nepal, Darjeeling, Bhutan, Naga Hills.
9	Mniaceae; <i>Plagiomnium</i> <i>rostratum</i> (Schrader) T. J. Koponen,										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
10	Pottiaceae; <i>Hyophila involuta</i> (Hook.) Jaeg.	 Cement moss									Moss Garden Lingadhar (Sariyataal); Haldwani (Jurassic Garden)			Soil moisture conservation	
11	Dicranaceae; <i>Campylopus</i> <i>involutus</i> (C. Muell.) Jaeg.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	This genus is represented worldwide.
12	Dicranaceae; <i>Campylopus</i> <i>fragilis</i> (Brid.) B.S.G.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	This genus is represented worldwide.
13	Brachytheciaceae ; <i>Brachythecium</i> <i>buchananii</i> (Hook.) Jaeg.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Common in China, Japan, and the Himalayan region, reaching to Pakistan, Philippines, and Vietnam.
14	Brachytheciaceae ; <i>Brachythecium</i> <i>cameratum</i> (Mitt.) Jaeg.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	East Nepal, Sikkim, Kumaun, Shimla, (Basically a Himalayan species.)

15	Fissidentaceae; <i>Fissidens bryoides</i> Hedw.	 Pocket moss									Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	East Nepal, Khasia Hills, Lower Bengal.
16	Pottiaceae; <i>Pseudosymblyphar</i> <i>is subduriuscula</i> (C. Muell.)										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	East Nepal, Myanmar, Borneo, Philippines, China (Yunnan). (Basically a South and East Asiatic species)
17	Pottiaceae; <i>Hymenostylium</i> <i>recurvirostre</i> (Hedw.) Dix.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Darjeeling, Khasia Hills, East Nepal, Bhutan.
18	Stereophyllaceae; <i>Stereophyllum</i> <i>anceps</i> (Bosch & Lac.) Broth.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Assam, Chhotanagpur, Bangladesh, Kanara, Mahabaleshwar, Ceylon, Thailand, Vietnam, Java, Philippines.
19	Plagiotheciaceae; <i>Sematophyllum</i> <i>subhumile</i> (C. Muell.) Fleisch.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	East Nepal, Upper Assam, Nilgiri, Palni, Myanmar, Thailand, Java. (basically a Southeast Asian species)
20	Fabroniaceae; <i>Levierella</i> <i>fabroniacea</i> C. Muell.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Darjeeling, East Nepal, East Madhya Pradesh, Western Himalaya Spreading from Africa to China over India.
21	Brachytheciaceae ; <i>Rhynchostegium</i> <i>celebicum</i> (Lac.) Jaeg.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Upper Assam, Garhwal, Palni, Thailand, Tonkin, Sumatra, Java, Celebes, Philippines. (Basically an Indo Malaysian species)

22	Hypnaceae; <i>Taxiphyllum</i> <i>taxirameum</i> (Mitt.) Fleisch.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	East Nepal, Upper Assam, Arunachal, Darjeeling, Khasia Hills, Bhutan, Orissa, Bangladesh.
23	Hypnaceae; <i>Ectropothecium</i> <i>cyperoides</i> (Hook.) Jaeg.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	East Nepal, Assam, Arunachal, Naga Hills, Garhwal, South India, Sumatra, Java, Celebes, Oceanic Islands; Indomalaya to Oceania.
24	Thuidiaceae; <i>Thuidium koelzii</i> Robinson										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation and Ornamental	East Nepal, Upper Assam, Bhutan, Khasia Hills, Orissa, Mussoorie (Basically a Himalayan species)
25	Pottiaceae; <i>Timmiella</i> <i>anomala</i> (B.S.G.) Limpr.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
26	Funariaceae; <i>Funaria</i> <i>hygrometrica</i> Hedw.	 Bonfire moss									Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
27	Leucodontaceae; <i>Leucodon</i> <i>secundus</i> (Harv.) Mitt.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
28	Dicranaceae; <i>Brothera leana</i> (Sull.) Mull. Hal.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	

29	Hypnaceae; <i>Taxiphyllum barbieri</i> (Cardot & Copp.) Z. Iwats.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation and Ornamental	Native to southeast Asia
30	Neckeraceae; <i>Cryptoleptodon flexuosus</i> (Harv.) Renauld & Cardot.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation and Ornamental	
31	Bryaceae; <i>Bryum argenteum</i> Hedw.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
32	Pottiaceae; <i>Tortella tortuosa</i> (Hedw.) Limpr.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
33	Bryaceae; <i>Rhodobryum giganteum</i> (Schwaegr.) Par.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
34	Sematophyllaceae; <i>Sematophyllum humile</i> (Mitt.) Broth.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
35	Thuidiaceae; <i>Thuidium cymbifolium</i> (Dozy & Molk.) Dozy & Molk.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	

36	Polytrichaceae; <i>Pogonatum microstomum</i> (R.Br. ex Schwaegr.) Brid.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
37	Thuidiaceae; <i>Haplocladium microphyllum</i> (Hedw.) Broth.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
38	Pottiaceae ; <i>Hydrogonium gracilantum</i> (Mitt.) Chen										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
39	Mniaceae; <i>Mnium cuspidatum</i> Hedw.	 Baby Tooth Moss									Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Found in North America, Africa and Asia.
40	Orthotrichaceae; <i>Zygodon viridissimus</i> (Dicks.) Brid.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
41	Pottiaceae; <i>Anoetangium clarum</i> Mitt.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
42	Pottiaceae; <i>Atrichum undulatum</i> (Hedw.) P. Beauv.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	It is native to Eurasia and North America.

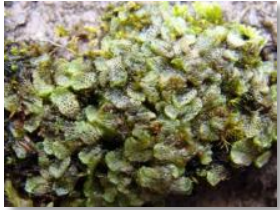
43	Polytrichaceae; <i>Pogonatum thomsonii</i> (Mitt.) A.Jaeger										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
44	Fissidentaceae; <i>Fissidens crispulus</i> Brid.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
45	Pottiaceae; <i>Anoetangium stracheyanum</i> Mitt.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
46	Pottiaceae; <i>Gymnostomiella vernica</i> (Hook. ex Harv.) <i>M.Fleisch.</i>										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
47	Pottiaceae; <i>Scopelophila ligulata</i> (Spruce) Spruce										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
48	Pottiaceae; <i>Semibarbula orientalis</i> (F.Weber) Wijk & Margad.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
49	Bryaceae; <i>Anomobryum filiforme</i> (Griff.) A.Jaeger										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	It is native to California.

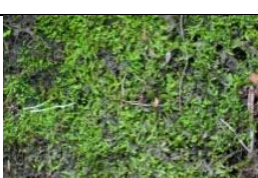
50	Bartramiaceae; <i>Philonotis mollis</i> (Dozy & Molk.) Mitt.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
51	Bartramiaceae; <i>Philonotis thwaitesii</i> Mitt.										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
52	Brachytheciaceae; <i>Eurhynchium riparioide</i> s (Hedw.) P.W. Richards										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
53	Meteoriaceae; <i>Cryptopapillaria fuscescens</i> (Hook.) M.Menzel										Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	

B. Liverworts:

Liverworts Species are being conserved at Lingadhar, Research Range Gaja and Haldwani.

S. No	Scientific Name	Local Name and Photo	Threat Status (IUCN/Biodiversity Board/ENVIS /BSI/Uttarakh and Govt. / Indian Biodiversity Portal)	Nursery					Experimental Site	Preservation Plot	Total No. Of Plant	Use	Native Region
				Nursery Name				Total No. Of Plant					
				Nursery. Name	No. Of Plant	Nursery Name	No. Of Plant						
1	Aytoniaceae; <i>Plagiochasma appendiculatum</i> Lehm. & Lindenb.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	widely distributed in western, eastern Himalayas, central India and south India.
2	Targioniaceae; <i>Targionia hypophylla</i> L.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	It has worldwide distribution in areas with Mediterranean climate.
3	Aytoniaceae; <i>Reboulia hemisphaerica</i> (L.) Raddi								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
4	Cyathodiaceae; <i>Cyathodium tuberosum</i> Kashyap								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
5	Marchantiaceae; <i>Marchantia polymorpha</i> (L.)	 Umbrella liverwort							Moss Garden Lingadhar (Sariyataal); Haldwani Jurassic Park			Soil moisture conservation	It is found worldwide from tropical to arctic climates.
6	Marchantiaceae; <i>Marchantia papillata</i> Raddi								Moss Garden Lingadhar (Sariyataal);			Soil moisture conservation	

7	Exormothecaceae; <i>Stephensoniella brevipedunculata</i> Kashyap		Endangered (IUCN)						Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	It is confined to the Western Himalaya in Himachal Pradesh and Uttaranchal.
8	Aytoniaceae; <i>Asterella wallichiana</i> (Lehm. & Lindenb.) Grolle								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
9	Conocephalaceae; <i>Conocephalum conicum</i> (L.) Dumort.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
10	Lunulariaceae; <i>Lunularia cruciate</i> (L.) Dumort. ex Lin.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
11	Exormothecaceae; <i>Aitchisoniella himalayensis</i> Kashyap		Endangered (IUCN)						Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	Endemic to the north-west Himalayas of India
12	Fossombroniaceae; <i>Fossombronia himalayensis</i> Kashyap.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
13	Ricciaceae; <i>Riccia fluitans</i> L.	 Floating crystalwort							Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
14	Marchantiaceae; <i>Marchantia paleacea</i> Bertol.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	

15	Aytoniaceae; <i>Cryptometrium himalayensis</i> Kashyap								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
16	Cleveaceae; <i>Athalamia pinguis</i> Falc.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
17	Exormothecaceae; <i>Exormotheca tuberifera</i> Kas hyap								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
18	Ricciaceae; <i>Riccia</i> <i>discolor</i> Lehm. & Lindenb.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
19	Pelliaceae; <i>Pellia endiviifolia</i> (Dicks.) Dumort								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
20	Petalophyllaceae; <i>Sewardiella tuberifera</i> Kashyap								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
21	Fossombroniaceae; <i>Fossombronia himalayensis</i> Kashyap								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
22	Frullaniaceae; <i>Frullania benjaminiana</i> Inoue								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	
23	Frullaniaceae; <i>Frullania</i> <i>dilatata</i> (L.) Dumort.								Moss Garden Lingadhar (Sariyataal)			Soil moisture conservation	It is found in Ireland, Germany, United Kingdom.

C. Hornworts:

Hornworts Species are being conserved at Lingadhar, Research Range Gaja and Haldwani.

S. No	Scientific Name	Local Name and Photo	Threat Status (IUCN/Biodiversity Board/ENVIS /BSI/Uttarakh and Govt. / Indian Biodiversity Portal)	Nursery					Experimental Site	Preservation Plot	Total No. Of Plant	Use	Native Region
				Nursery Name				Total No. Of Plant					
				Nursery. Name	No. Of Plant	Nursery Name	No. Of Plant						
1	Anthocerotaceae; <i>Anthoceros erectus</i> Kashyap								Moss Garden Lingadhar (Sariyataal)	-	-	Soil moisture conservation	
2	Anthocerotaceae; <i>Phaeoceros himalayensis</i> Kashyap								Moss Garden Lingadhar (Sariyataal)	-	-	Soil moisture conservation	

XIX. Other Species:

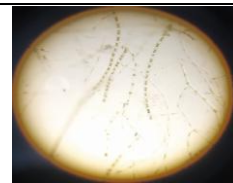
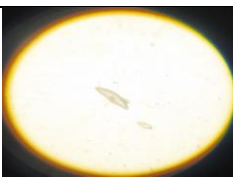
A. Air Plants species in Haldwani Range

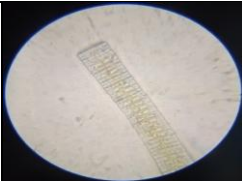
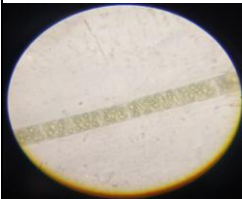
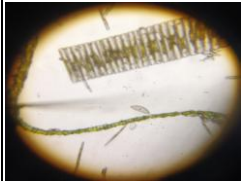
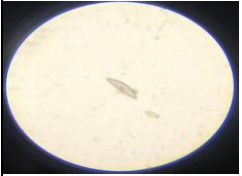
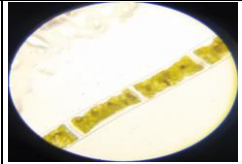
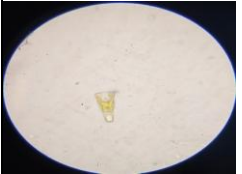
S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttara khand Govt. / Indian Biodiversity Portal)	Nursery						Total	Experiment Site	Preservatio n Plot	Grand Total	Use	Native Region
				Nursery Name											
				1		2		3							
				Nursery. Name	No. Of Plant	Nursery Name	No. Of Plant	Nursery. Name	No. Of Plant						
1.	Bromeliaceae; <i>Tillandsia usneoides</i>	 Spanish moss		Haldwani	2					2			2	Air Purifying	Native to Mexico
2.	Bromeliaceae; <i>Tillandsia bulbosa</i>			Haldwani	2					2			2	Air Purifying	Native to Guatemala, Belize, and Central America
3.	Bromeliaceae; <i>Tillandsia chiapensis</i>			Haldwani	2					2			2	Air Purifying	Native to Mexico
4.	Bromeliaceae; <i>Tillandsia ionantha</i>			Haldwani	2					2			2	Air Purifying	Native to Central America & Mexico
5.	Bromeliaceae; <i>Tillandsia mima chiletensis</i>			Haldwani	2					2			2	Air Purifying	Native to Peru
6.	Bromeliaceae; <i>Tillandsia balbisiana</i>			Haldwani	2					2			2	Air Purifying	Native to Mexico

7	Bromeliaceae; <i>Tillandsia</i> 'Sparkler'														
8	Bromeliaceae; <i>Tillandsia capitata</i> domingensis														Native to the UK
9	Bromeliaceae; <i>Tillandsia bulbosa</i> Guatemala														
10	Bromeliaceae; <i>Tillandsia</i> Caput Medusae Sonoran Snow														
11	Bromeliaceae; <i>Tillandsia ionantha</i> mexico														
12	Bromeliaceae; <i>Tillandsia intermedia</i>														Endemic to western Mexico, reported from Guerrero, Sinaloa, and Jalisco.
13	Bromeliaceae; <i>Tillandsia funckiana</i>														Native to Venezuela.

14	Bromeliaceae; <i>Tillandsia harrisii</i>														Endemic to Guatemala.
15	Bromeliaceae; <i>Tillandsia ionantha</i> 'Druid'														

B . Algae (Haldwani, Gopeshwar and Dehradun Ranges)

S. No	Scientific Name	Local Name and Photo	Conservation Status (IUCN/Biodiversity Board/ENVIS/Uttara khand Govt. Indian Biodiversity Portal)	Nursery						Total	Experiment Site	Preservation Plot	Grand Total	Use	Native Region
				Nursery Name											
				1		2		3							
				Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant	Nursery. Name	No. Of Plant						
1	Zygnemataceae; <i>Spirogyra spp.</i>										Mandal				
2	Unidentified										Riparian plot Shyampur				
3	<i>Zygnyma spp.</i>										Shyampur RET Riparian plot				Freshwater habitats
4	<i>Cymbella lanceolata</i>										Shyampur RET riparian plot				Found in Marine, brackish, fresh, water habitats and sometimes in terrestrial

5	<i>Fragilaria crotonensis</i>										Shyampur RET riparian plot				Associated with freshwater habitat
6	<i>Spyrogyra spp.</i>										Shyampur RET riparian plot			Source of vitamin and mineral s	Common in fresh water habitat
7	<i>Scenedesmus acuminatus</i>										Shyampur RET riparian plot				Free floating in rivulet
8	<i>Amphora sp.</i>										Shyampur RET riparian plot				Fresh water diatom
9	<i>Rhizoclonium sp.</i>										Shyampur RET riparian plot			Potenti al in ethanol product ion	Common in stagnant water
10	<i>Gomophnema sp.</i>										Shyampur RET riparian plot				Worldwide distribution

- 7 species is yet to be identified

APENDICES I

LIST OF ENDEMIC SPECIES-UTTARAKHAND/INDIAN HIMALAYAN REGION

S.No.	Scientific Name	Local Name	Page No; Serial No.	Source	Region
1.	<i>Pittosporium eriocarpum</i>	Tumri	(Page No. 41 , S.No 34) (Other tree species)	Endemic; Flowering plant of Uttarakhand. (A Checklist) B.P. Uniyal 2007.	Uttarakhand
2.	<i>Prunus cornuta</i>	Jamoi	(Page No. 47 , S.No 62) (Other tree species)	Endemic; Flowering plants of Uttarakhand (A checklist) Uniyal et. al	Uttarakhand
3.	<i>Aconitum balfouri</i>	Meetha vish	(Page No. 103 , S.No 2) (Other herbs)	Broadly Endemic to Uttarakhand; Threatened species of Uttarakhand, P.No. 3 4, Dr. Bhagat Singh Burfal	Uttarakhand
4.	<i>Meizotropis pellita</i>	Patwa	(Page No. 133 , S.No 39) (Other shrubs)	Endemic to Patwadangar (Nainital); An In Vitro Approach for the Conservation of M. pellita: An Endangered and Endemic Plant, Lalit Singh et al American Journal of Plant Science, 2013, 4, 1233 1240	Uttarakhand
5.	<i>Dendrobium fimbriatum</i>		(Page No. 189 , S.No. 8) (Orchids)	Endemic; Flowering Plants of Uttarakhand (A Checklist) B.P. Uniyal	Uttarakhand
6.	<i>Trachycarpus takil</i>	Kumaon fan palm	(Page No.246 , S.No 56) (Palm)	Endemic; Kumaun Fan Palm: <i>T. takil</i> –in Retrospect B.S. Kholia pp 417 426,2010	Uttarakhand
7.	<i>Berberis lambertii</i>		(Page No.131 , S.No 27) (Other Shrubs)	Endemic; Flowering plant of Uttarakhand. (A Checklist) B.P. Uniyal 2007.	Uttarakhand
8.	<i>Quercus floribunda</i>	Moru	(Page No. 32 , S.No 4) (Oak)	Near Endemic; Diversity distribution, use and conservation status of plant species of the west Himalaya, India, S.S Samant, ISSN: 1745 16042(2006)97 104	Uttarakhand
9.	<i>Cinnamomum tamala</i>	Tejpat	(Page No. 36 , S.No 2) (Other tree species)	Near Endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr. Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
10.	<i>Juglans regia</i>	Akhrot	(Page No. 37 , S.No 9) (Other tree species)	Near Endemic;Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr. Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
11.	<i>Grewia oppositifolia</i>	Bhimal	(Page No. 39 , S.No 18) (other tree species)	Near Endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013	Uttarakhand
12.	<i>Cedrus deodara</i>	Deodara	(Page No. 40 , S.No 28) (other tree species)	Near Endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
13.	<i>Machilus duthiei</i>	Kaula	(Page No. 41 , S.No 31) (other tree species)	Near Endemic; Diversity, distribution use and conservation status of Plant sp. Of MFR W Himalaya S.pant& Samant ISSN:1745 1604	Uttarakhand
14.	<i>Bauhinia retusa</i>	Semel	(Page No. 46 , S.No 59) (Other tree species)	Near Endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
15.	<i>Ulmus wallichiana</i>	Emroyi	(Page No. 46 , S.No 61)	Near Endemic; Status and distribution pattern of Native and	Uttarakhand

			(Other tree species)	Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	
16.	<i>Rhamnus triqueter</i>	Gonta	(Page No. 48 , S.No 73) (Other tree species)	Near Endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr. Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
17.	<i>Cupressus torulosa</i>	Surai	(Page No. 61 , S.No 142) (Other tree species)	Near Endemic; Diversity distribution, use and conservation status of plant species of the west Himalaya, India, S.S Samant, ISSN: 1745 16042(2006)97 104	Uttarakhand
18.	<i>Hedychium spicatum</i>	Kapur Kachri	(Page No. 93 , S.No 4) (Aromatic herbs)	Near Endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr. Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
19.	<i>Heracleum candicans</i>	Patrala	(Page No. 96 , S.No 29) (Aromatic herbs)	Near Endemic; The International Journal of Biodiversity Science and Management ISSN: 1745 1604 (print) 1745 1590	Uttarakhand
20.	<i>Geranium wallichianum</i>		(Page No. 103 , S.No 4) (Other herbs)	Near Endemic: Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
21.	<i>Lilium polyphyllum</i>	Kshira Kakoli	(Page No. 104 , S.No 5) (Other herbs)	Near Endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
22.	<i>Bergenia ciliata</i>	Pashanbedh	(Page No. 104 , S.No 7) (Other herbs)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya ; A Field Guide , Ishwari Datt Rai, Gajendra singh and Gopal Singh Rawat. 2017	Uttarakhand
23.	<i>Bergenia stracheyi</i>	Pashanbedh	(Page No. 104 , S.No 8) (Other herbs)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya ; A Field Guide , Ishwari Datt Rai, Gajendra singh and Gopal Singh Rawat. 2017	Uttarakhand
24.	<i>Eremostachys superba</i>	Mooch	(Page No. 110 , S.No 40) (Other herbs)	Near Endemic; to Shiwaliks or NW India Threatened species of Uttarakhand. B. S. Barfal	Uttarakhand
25.	<i>Cotoneaster bacillaris</i>	Ruins	(Page No. 126 , S.No 2) (Other shrubs)	Near endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
26.	<i>Berberis aristata</i>	Kilmora	(Page No. 128 , S.No 10) (Other shrubs)	Near endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
27.	<i>Skimmia laureola</i>	Kedarpati	(Page No. 128 , S.No 12) (Other shrubs)	Near Endemic; Diversity distribution, use and conservation status of plant species of the west Himalaya, India, S.S Samant, ISSN: 1745 16042(2006)97 104	Uttarakhand
28.	<i>Daphne papyracea</i>	Satpura	(Page No. 131 , S.No 26) (Other shrubs)	Near endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
29.	<i>Viburnum cotinifolium</i>	Guiya	(Page No. 133 , S.No 38) (Other shrubs)	Near Endemic; Diversity distribution, use and conservation status of plant species of the west Himalaya, India, S.S Samant, ISSN: 1745 16042(2006)97 104	Uttarakhand
30.	<i>Indigofera pulchella</i>	Sakina	(Page No. 138 , S.No 70)	Near Endemic; Status and distribution pattern of Native and	Uttarakhand

			(Other shrubs)	Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	
31.	<i>Euphorbia royleana</i>	Sullu spurge	(Page No. 259 , S.No 32) (Cactus & succulents)	Near Endemic; Status and distribution pattern of Native and Endemic species in Uttarakhand (WHR)India Dr.Surbhi & Soni Pandey Vol. 4 , Nov.2013, ISSN 2229 5518	Uttarakhand
32.	<i>Schrebera swietenoides</i>	Van palas	(Page No. 68 , S.No 184) (other trees)	Near Endemic; Threatened species of Uttarakhand. B. S. Barfal	Uttarakhand
33.	<i>Ficus neriifolia</i>	Dudhla	(Page No. 9 , S.No 4) (Ficus)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya; A Field Guide, Ishwari Datt Rai, Gajendra Singh and Gopal Singh Rawat. 2017	Uttarakhand
34.	<i>Pinus roxburghii</i>	Chir	Page No. 31 , (S.No. 21) (Pine)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya ; A Field Guide , Ishwari Datt Rai, Gajendra Singh and Gopal singh Rawat. 2017	Uttarakhand
35.	<i>Rhododendron anthopogon</i>	Tagsu	Page No. 34 , (S.No. 4) (Rhododendron)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya; A Field Guide , Ishwari Datt Rai, Gajendra Singh and Gopal Singh Rawat. 2017	Uttarakhand
36.	<i>Acer caesium</i>	Kanchula	(Page No. 40 , S.No 25) (other tree species)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya; A Field Guide, Ishwari Datt Rai, Gajendra Singh and Gopal Singh Rawat. 2017	Uttarakhand
37.	<i>Aesculus indica</i>	Pangar	(Page No. 82 , S.No 267) (other tree species)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya; A Field Guide, Ishwari Datt Rai, Gajendra Singh and Gopal Singh Rawat. 2017	Uttarakhand
38.	<i>Myrica sapida</i>	Shilong Kafal	(Page No. 82 , S.No 268) (other tree species)	Near Endemic; The International Journal of Biodiversity Science and Management, ISSN: 1745 1604(Print)1745 1590, Shreekar Pant & Samant.	Uttarakhand
39.	<i>Ajuga parviflora</i>	Ratpatiya	(Page No. 112 , S.No 55) (Other Herbs)	Near Endemic; The International Journal of Biodiversity Science and Management, ISSN: 1745 1604(Print)1745 1590, Shreekar pant & Samant.	Uttarakhand
40.	<i>Asparagus curillus</i>	Satawar	(Page No. 138 , S.No 67) (Other Shrubs)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya ; A Field Guide , Ishwari Datt Rai, Gajendra singh and Gopal singh Rawat. 2017	Uttarakhand
41.	<i>Diplomeris hirsuta</i>	Snow Orchid	(Page No. 197 , S.No 68) (Orchid Species)	Threatened species of Uttarakhand. B. S. Barfal	Uttarakhand
42.	<i>Pecteilis gigantean</i>	Butterfly orchid	(Page No. 197 , S.No 66) (Orchid Species)	Threatened species of Uttarakhand. B. S. Barfal	Uttarakhand
43.	<i>Indopiptadenia oudhensis</i>	Gainti	(Page No. 47 , S.No. 67) (Other tree species)	Endemic to Western Himalaya; Phyto sociological analysis and regeneration status of monotypic; Endemic tree in Uttarakhand. H.B Naithani. vol. 141, 6 jun 2015	Indian Himalayan Region
44.	<i>Nardostachys jatamansi</i>	Jatamansi	(Page No. 92 , S.No. 1) (Aromatic herbs)	Endemic Himalaya; THREATENED SPECIES OF UTTARAKHAND P.no 12, Dr. Bhagat Singh Burfal	Indian Himalayan Region
45.	<i>Aconitum hetrophyllum</i>	Atees	(Page No. 103 , S.No 1)	Pan Endemic in Himalaya; Threatened species of Uttarakhand	Indian Himalayan

			(Other herbs)	P.no 5 6, Dr. Bhagat Singh Burfal	Region
46.	<i>Saussurea costus</i>	Koot/Kushta	(Page No. 107 , S.No 23) (Other herbs)	Endemic Himalaya; (IHR) Saussurea species in Indian, Himalayan, Region: International, Journal of Plant Biology · Jan 2010 J. S. Butola	Indian Himalayan Region
47.	<i>Gentiana kurroo</i>	Trayman	(Page No. 107 , S.No 24) (Other herbs)	Endemic to Western Himalaya; (Threatened species of Uttarakhand P.no 10, Dr. Bhagat Singh Burfal)	Indian Himalayan Region
48.	<i>Cyathea spinolosa</i>	Tree fern	(Page No. 204 , S.No 1) (Fern)	Pan endemic; Threatened species of Uttarakhand P.no 23 24, Dr. Bhagat Singh Burfal.	Indian Himalayan Region
49.	<i>Utricularia brachiata</i>		(Page No. 300 , S.No 2) Insectivorous plants	Endemic to northeast India , Status of insectivorous plants in northeast India Volume 43 June 2014	Indian Himalayan Region
50.	<i>Angelica glauca</i>	Choru	(Page No. 94 , S.No 16) (Aromatic Herbs)	Endemic Himalaya (IHR); Technology for propagation and cultivation of A. Glauca: A threatened high value Himalayan medicinal cum edible herb. Jitendra Singh Butola et. al, Medicinal Plants, 2(1) January 2010	Indian Himalayan Region
51.	<i>Allium stracheyi</i>	Faran	(Page No. 92 , S.No 3) (Aromatic herbs)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya ; A Field Guide , Ishwari Datt Rai, Gajendra singh and Gopal Singh Rawat. 2017	Indian Himalayan Region
52.	<i>Utricularia kumaonsis</i>		(Page No. 300 , S.No 5) Insectivorous plants	Bladderworts of India by M.K. Janarthanam and A.N. Henry , BSI Coimbatore 17 July 1992	Indian Himalayan Region
53.	<i>Trillium govanianum</i>	Nagchatri	(Page No. 106 , S.No 16) (Other Herbs)	Trillium govanianum, Himalayan Trillium THE IUCN RED LIST OF THREATENED SPECIES	Indian Himalayan Region
54.	<i>Stephensoniella brevipedunculata</i>		(Page No. 323 , S.No. 7) (Liverworts Species)	Endangered (IUCN)	It is confined to Western Himalaya in Himachal Pradesh and Uttarakhand
55.	<i>Aitchisoniella himalayensis</i>		(Page No. 323 , S.No. 11) (Bryophytes)	Endangered (IUCN)	Endemic to the north-west Himalayas of India
56.	<i>Tsuga dumosa</i>	Tansen	(Page No. 40 , S.No 24) (Other herbs)	-	Indian Himalayan Region
57.	<i>Aconitum ferox</i>		(Page No. 119 , S.No 100) (Other herbs)	Plants of Kedarnath Wildlife Sanctuary, Western Himalaya; A Field Guide, Ishwari Datt Rai, Gajendra Singh and Gopal Singh Rawat. 2017	Endemic in Indian Himalayan Region

APENDICES II

LIST OF THREATENED SPECIES

S.No.	Scientific Name	Local Name	Page No; Serial No	Conservation Status
1.	<i>Aquillaria agallocha</i>	Agar	(Page No. 77 , S.No.236 Other Trees)	Critically Endangered (IUCN)
2.	<i>Aquilaria malaccensis</i>	Agar Wood	(Page No. 88 , S.No.304 Other Trees)	Critically Endangered (IUCN)
3.	<i>Nardostachys jatamansi</i>	Jatamansi	(Page No. 92 , S.No.1 Aromatic Herbs)	Critically Endangered (IUCN & BSI); Threatened (Uttarakhand Biodiversity Board);
4.	<i>Lilium polyphyllum</i>	White Himalayan Lily	(Page No. 104 , S.No. 5 Other Herbs)	Critically Endangered (IUCN & BSI)
5.	<i>Saussurea costus</i>	Koot	(Page No. 107 , S.No. 23 Other Herbs)	Critically Endangered (IUCN & BSI)
6.	<i>Gentiana kurroo</i>	Trayman	(Page No. 107 , S.No. 24 Other Herbs)	Critically Endangered (IUCN & BSI); Threatened (Uttarakhand Biodiversity Board)
7.	<i>Chlorophytum borvivilianum</i>	Safed Musli	(Page No. 107 , S.No. 25 Other Herbs)	Critically Endangered (IUCN & BSI)
8.	<i>Beaucarnea recurvata</i>	Pony Tail Palm	(Page No. 238 , S.No. 2 Palm)	Critically Endangered (IUCN)
9.	<i>Hyophorbe lagenicaulis</i>	Bottle palm	(Page No. 238 , S.No. 5 Palm)	Critically Endangered (IUCN)
10.	<i>Dypsis leptocheilos</i>	Red neck palm	(Page No. 239 , S.No. 12 Palm)	Critically Endangered (IUCN)
11.	<i>Hyophorbe verschaffeltii</i>	Spindle Palm	(Page No. 240 , S.No. 15 Palm)	Critically Endangered (IUCN)
12.	<i>Gastrochilus calceolaris</i>	Shoe-Shaped Belly-Lip	Page No. 199 , S.No. 83 Orchids)	Critically Endangered (IUCN)
13.	<i>Aconitum hetrophyllum</i>	Atees	(Page No. 103 , S.No. 1 Other Herbs)	Endangered (IUCN & BSI); Threatened (Uttarakhand Biodiversity Board)
14.	<i>Rauvolfia serpentina</i>	Sarpghandha	(Page No. 130 , S.No. 21 Other Shrubs)	Endangered (IUCN)
15.	<i>Coffea arabica</i>	Coffee	(Page No. 139 , S.No. 72 Other shrubs)	Endangered (IUCN)
16.	<i>Angelica glauca</i>	Choru	(Page No. 94 , S.No. 16 Aromatic herbs)	Endangered (BSI)
17.	<i>Ficus andamanica</i>		(Page No. 14 , S.No. 31 Ficus)	Endangered (IUCN & BSI);
18.	<i>Ginkgo biloba</i>	Maiden Hair tree	(Page No. 39 , S.No. 21 Other trees)	Endangered (IUCN)
19.	<i>Pittosporium eriocarpum</i>	Tumri	(Page No. 41 , S.No. 34 Other trees)	Endangered (IUCN & BSI);
20.	<i>Cedrus atlantica</i>		(Page No. 60 , S.No. 137 Other trees)	Endangered (IUCN)
21.	<i>Hopea wightiana</i>	Pav	(Page No. 81 , S.No. 263 Other trees)	Endangered (IUCN)
22.	<i>Dipterocarpus retusus</i>	Hollong	(Page No. 75 , S.No. 222 Other trees)	Endangered (IUCN & BSI);
23.	<i>Caesalpinia bonduc</i>	Latakaranj	(Page No. 136 , S.No. 59 Other shrubs)	Endangered (IUCN)
24.	<i>Picrorhiza kurrooa</i>	Kutaki	(Page No. 104 , S.No. 9 Other herbs)	Endangered (IUCN)
25.	<i>Trillium govanianum</i>	Nagchatri	(Page No. 106 , S.No. 16 Other herbs)	Endangered (IUCN)
26.	<i>Aerides odorata</i>		(Page No. 192 , S.No. 31 Orchids)	Endangered (IUCN)
27.	<i>Cypripedium himalaicum</i>	Himalayan Venus	(Page No. 199 , S.No. 84 Orchids)	Endangered (IUCN & BSI); Rare (ENVIS & Indian Biodiversity Portal)
28.	<i>Pritchardia remota</i>	Pritchardia Palm	(Page No. 242 , S.No. 26 Palm)	Endangered (IUCN)

29.	<i>Latania verscaffeltii</i>		(Page No. 244 , S.No 46 Palm)	Endangered (IUCN)
30.	<i>Zamia fuuracea</i>	Cardboard Palm	(Page No. 251 , S.No. 1 Cycads)	Endangered (IUCN)
31.	<i>Cycas circinalis</i>	Queen Sago Palm	(Page No. 251 , S.No. 4 Cycads)	Endangered (IUCN & BSI)
32.	<i>Zamia fischeri</i>		(Page No. 252 , S.No. 6 Cycads)	Endangered (IUCN)
33.	<i>Echinocactus grusonii</i>	Golden barrel cactus	(Page No. 265 , S.No 78 Cactus)	Endangered (IUCN)
34.	<i>Zamia integrifolia</i>		(Page No. 252 , S.No 14 Cycad)	Near Threatened (IUCN)
35.	<i>Stephensoniella brevipedunculata</i>		(Page No. 323 , S.No 7 Bryophytes)	Endangered (IUCN)
36.	<i>Aitchisoniella himalayensis</i>		(Page No. 323 , S.No 11 Bryophytes)	Endangered (IUCN)
37.	<i>Saraca asoca</i>	Seeta ashok	(Page No. 55 , S.No. 108 other trees)	Vulnerable (IUCN & BSI)
38.	<i>Ulmus wallichiana</i>	Emroyi	(Page No. 46 ,S.No. 61 other trees)	Vulnerable (IUCN & BSI)
39.	<i>Pterocarpus marsupium</i>	Bijasal	(Page No. 62 , S.No. 150 other trees)	Vulnerable (IUCN)
40.	<i>Jacrandia mimosifolia</i>	Jacrandia	(Page No. 54 , S.No. 101 other trees)	Vulnerable (IUCN)
41.	<i>Santalum album</i>	Chandan	(Page No. 59 , S.No. 129 other trees)	Vulnerable (IUCN & BSI)
42.	<i>Dalbergia latifolia</i>	Kala Shisam	(Page No. 68 , S.No. 179 other trees)	Vulnerable (IUCN & BSI)
43.	<i>Vateria indica</i>	White Dammar	(Page No. 81 , S.No. 260 other trees)	Vulnerable (IUCN) & Critically Endangered (Indian Biodiversity Portal)
44.	<i>Malaxis muscifera</i>	Rishbhak	(Page No. 190, S.No. 15 Orchid species)	Vulnerable (IUCN & BSI)
45.	<i>Aconitum balfouri</i>	Meetha	(Page No. 103 , S.No. 2 other Herbs)	Vulnerable (IUCN), Threatened (Uttarakhand biodiversity Board)
46.	<i>Ravenea rivularis</i>	Majestic Palm	(Page No. 239 , S.No. 6 Palm)	Vulnerable (IUCN)
47.	<i>Dypsis decaryi</i>	Triangle Palm	(Page No. 248 , S.No. 75 Palm)	Vulnerable (IUCN)
48.	<i>Myristica malabarica</i>	Malabar Nutmeg	(Page No. 89 , S.No. 308 other trees)	Vulnerable (IUCN)
49.	<i>Pinus greggii</i>		(Page No. 29 , S.No. 7 Pine)	Near Threatened (IUCN)
50.	<i>Pinus gerardiana</i>		(Page No. 31 , S.No. 22 Pine)	Near Threatened (IUCN)
51.	<i>Cryptomeria japonica</i>		(Page No. 40 , S.No. 27 Other tree species)	Near Threatened (IUCN)
52.	<i>Platyclusus orientalis</i>	Morpankhi	(Page No. 46 , S.No. 58 Other tree species)	Near Threatened (IUCN)
53.	<i>Pterocarpus santalinus</i>	Raktchandan	(Page No. 66 , S.No. 172 Other tree species)	Near Threatened (IUCN)
54.	<i>Swietenia mahagoni</i>	American mahogany	(Page No. 71 , S.No. 200 Other trees)	Near Threatened (IUCN)
55.	<i>Abies spectabilis</i>		(Page No. 75 , S.No. 223 Other tree species)	Near Threatened (IUCN)
56.	<i>Dypsis lutescens</i>	Golden cane palm	(Page No. 240 , S.No. 13 Palm)	Near Threatened (IUCN)
57.	<i>Washingtonia robusta</i>	Mexican fan Palm	(Page No. 240 , S.No. 18 Palm)	Near Threatened(IUCN)
58.	<i>Adonidia merrillii</i>		(Page No. 238 , S.No. 31 Palm)	Near Threatened (IUCN)
59.	<i>Washingtonia filifera</i>	Desert fan palm	(Page No. 246, S.No. 62 Palm)	Near Threatened (IUCN)

60.	<i>Phoenix rupicola</i>	Cliff Date Palm	(Page No. 244 , S.No. 45 Palm)	Near Threatened (IUCN)
61.	<i>Zamia pumila</i>	Coontie palm	(Page No. 251 , S.No. 2 Cyacd)	Near Threatened (IUCN)
62.	<i>Pinanga coronata</i>		(Page No. 248 , S.No. 74 Palm)	Near Threatened (IUCN)
63.	<i>Trachycarpus takil</i>	Kumaon fan palm	(Page No. 246 , S.No. 56 Palm)	Threatened (Uttarakhand biodiversity Board); Rare (ENVIS)
64.	<i>Allium stracheyi</i>	Faran	(Page No. 92 , S.No. 3 Aromatic herbs)	Vulnerable (ENVIS)
65.	<i>Acer caesium</i>	Kanchula	(Page No. 40 , S.No. 25 Other trees)	Vulnerable (ENVIS)
66.	<i>Rheum moorcroftianum</i>	Dolu	(Page No. 105 , S.No. 10 Other herbs)	Vulnerable (ENVIS)
67.	<i>Acer oblongum</i>	Pharbanj	(Page No. 36 , S.No. 4 Other tree species)	Endangered (ENVIS)
68.	<i>Meizotropis pellita</i>	Patwa	(Page No. 133, S.No. 39 Other Shrub species)	Threatened (Uttarakhand biodiversity Board)
69.	<i>Indoptadenia oudhensis</i>	Gainti	(Page No. 47, S.No. 67 Other tree species)	Threatened (Uttarakhand biodiversity Board)
70.	<i>Schrebera swietenoides</i>	Van palas	(Page No. 68 , S.No. 184 Other tree species)	Threatened (Uttarakhand biodiversity Board)
71.	<i>Eremostachys superba</i>	Golden Himalayan Spike	(Page No. 110 , S.No. 40 Other herbs)	Threatened (Uttarakhand biodiversity Board)
72.	<i>Cyathea spinolosa</i>	Tree fern	(Page No. 204 , S.No. 1 Fern species)	Threatened (Uttarakhand biodiversity Board)
73.	<i>Phaius tankervilleae</i>	Red cane orchid	(Page No. 193 , S.No. 38 Orchid species)	Threatened (Uttarakhand biodiversity Board)
74.	<i>Pecteilis gigantean</i>	Butterfly Orchid	(Page No. 197 , S.No. 66 Orchid species)	Threatened (Uttarakhand biodiversity Board)
75.	<i>Diplomeris hirsuta</i>	Snow Orchid	(Page No. 197 , S.No. 68 Orchid species)	Threatened (Uttarakhand biodiversity Board) & Vulnerable (Indian Biodiversity Portal)
76.	<i>Aquilegia nivalis</i>		(Page No. 231 , S.No. 13 Alpine flower)	Rare (IUCN)
77.	<i>Cymbopogon citrates</i>	Lemon Grass	(Page No. 176 , S.No. 18 Grass species)	Rare ENVIS
78.	<i>Ficus cupulata</i>		(Page No. 18 , S.No. 53 Ficus Species)	Rare ENVIS
79.	<i>Alangium lamarckii</i>	Ankola	(Page No. 62 , S.No. 148 Other Trees)	Rare ENVIS
80.	<i>Cypripedium cordigerum</i>	Lady Slipper Orchid	(Page No. 195 , S.No. 56 Orchid Species)	Rare (Indian Biodiversity Portal)
81.	<i>Normanbya normanbyi</i>	Black palm	(Page No. 250 , S.No. 86 Palm)	Vulnerable (IUCN)
82.	<i>Cycas beddomei</i>		(Page No. 253 , S.No. 17 Cycad)	Endangered (IUCN)

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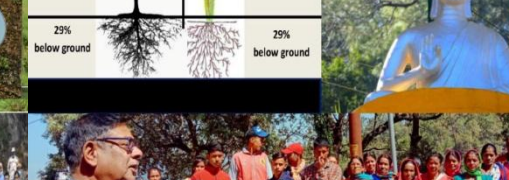
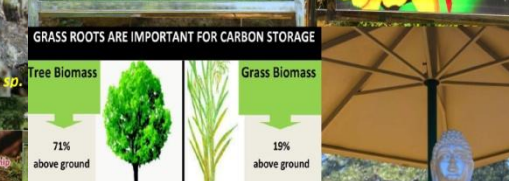
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