SCHEDULE-V

[See clause 3 (3)(6)(7) and 10 and 11 (3)] List of plants and plant materials restricted import permissible only with the recommendation of authorized institutions with additional declarations and special conditions

S. No.	Plant species/ variety	Category of plants & plant material	Additional declarations required to be incorporated into PSC	Special conditions of import	Responsibility of authorized Institutions
1.	Banana, Plantain and Abaca (<i>Musa</i> spp.).	(i) Rhizomes/ Suckers	 Freedom from: (a) Moko wilt (<i>Burkholderia</i> solanacearum Race-2) (b) Black leaf streak (<i>Mycosphaerella fijiensis</i> var. difformis) (c) Cameroon marbling (<i>Phytoplasmas</i>) (d) Rhizome rot (<i>Erwinia</i> chrysanthemi pv. paradisiaca) (e) Banana weevil (Hawaii) (<i>Cosmopolites pruinosus</i>), (f) Cane weevil (West Indies) (<i>Metamasius hemipterus</i>), (g) Banana weevil (East African), (<i>Temnoschoita</i> nigroplagiata). 	 (i) Growing of imported consignment under post-entry quarantine for a period of 9-12 months. (ii) Import subject to prior approval of Department of Agriculture and Cooperation in the Ministry of Agriculture 	Subject to the recommendation, supervision, monitoring and testing by Director, National Research Center on Banana, Tiruchi (Tamil Nadu).
		(ii) Tissue cultured plants	Certified that the tissue culture plants tested and found free from viruses and phytoplasmas affecting banana.	The above conditions shall not apply.	Commercial imports subject to prior approval of DAC.

2	Cassava or	(i) Stem Cuttings	Freedom from:	(i) Post-entry quarantine	Subject to the
2.	tapioca (Manihot	(i) Stem Cuttings	(a) Super elongation	for a period of one	recommendation
	esculenta)		(Sphaceloma manihoticola)	vear	supervision
	esementa)		(b) Bacterial leaf spot	(ii) Hot water dipping of	monitoring and
			(Xanthomonas	cuttings at 50 °C for	testing by Director.
			<i>campestris</i> .pv. <i>cassavae</i>)	30 min. before	Central Tuber
			(c) Cassava bacterial blight	planting.	Crops Research
			(Xanthomonas campestris		Institute,
			pv. manihotis) - American		Sreekaryam
			strains.		(Kerala).
			(d) Cassava viruses (viz.		
			common mosaic, brown		
			streak, leaf vein mosaic, red		
			mottle and yellow vein		
			banding		
			(e) Cassava witches' broom		
			(phytoplasma)		
			(f) Shoot fly (<i>Carpolonchaea</i>		
			<i>chalybea</i>)		
			(g) Mile (<i>Mononychelius</i> spp.)		
			(ii) Thinp (Frankliniella willamsi)		
			wittumst)		
		(ii) Seeds	As stated above at (b) and (c)	The above conditions	
		() ~ ~		shall not apply.	
				11 J ·	
		(iii) Tissue	Certified that the tissue cultured	Same as above.	Same as above.
		cultured	plants tested and found virus-		
		plants	free.		
					Same as above.
3.	<i>Citrus</i> spp.	(i) Grafts/ Bud	Freedom from:	Post-entry quarantine for	Subject to the
	(lemon, lime,	wood/	(a) Mal secco (<i>Deuterophoma</i>	a period of one year.	recommendation,
	orange, grape	Plants	tracheiphila)		supervision,
	truit, mandarins		(b) Stubborn or little leaf		monitoring and
	etc.) and other		(Spiroplasma citri)		testing by Director,

	Rutaceous hosts		 (c) Cancrosis B (Xanthomonas campestris pv. aurantifolii) (d) Citrus tatter leaf (Capillo virus) (e) Satsuma dwarf virus (f) Sweet orange scab (Elsinoe australis) and Tryon's scab (Sphaceloma fawcettii var. scabiosa) (g) Citrus burrowing nematode (Radopholus citrophilus) (h) Florida red scale (Chrysomphalus aonidium) (i) Citrus bud mite (Eriophyes sheldoni) (j) Citrus rust mite (Phyllocoptruta oleivora) 		National Research Centre on Citrus, Nagpur, (Maharashtra).
		(ii) Seeds for propagation	As stated above at ©	The above condition shall not apply.	Same as above.
		(iii) Tissue cultured plants	Certified that the tissue-cultured plants are obtained from mother- stock indexed or tested and maintained virus-free.	Same as above.	Import subject to prior approval of Department of Agriculture and Cooperation in the Ministry of Agriculture
4.	Cocoa (<i>Theobroma</i> <i>cacao</i>) and related species.	Seeds (beans)/pods/bud wood/rootstock	Freedom from (a) Swollen shoot virus and related strains (b) Witches' broom (<i>Crinipellis (Marasmius)</i>	Post-entry quarantine for a period of one year	Subject to the recommendation, supervision, monitoring and testing by the

			•••		D' (CDCDI
			perniciosa)		Director, CPCRI,
			(c) Watery pod rot (<i>Monilia</i>		Kasaragod, Kerala
			(Moniliopthora) roreri)		
			(d) Mealy pod		
			(Trachysphaera		
			fructigena)		
			(e) Mirids (Sahlbergia		
			singularis & Distantiella		
			theobroma)		
			(f) Cocoa moth		
			(Acorocercons		
			cramerella		
			(g) Cocoa cansid		
			(Sahlbergiella		
			(Sumber gienu theobroma)		
			(h) Cocco bootlo		
			(II) Cocoa beette (Stainastoma huavi)		
			(i) acadling domaing off		
			(1) seeding damping-on		
			(Phytophthora cactorum)		
			(j) Chestnut downy mildew		
			(Phytophthora katsurae)		
			(k) Black pod of cocoa		
			(Phytophthora		
			megakarya)		
		(ii) Tissue-	Certified that the tissue	The above conditions	
		cultured plants	cultured plants are produced	shall not apply	
			in vitro are obtained from		
			mother stock tested and		
			maintained free from cocoa		
			viruses by appropriate		
			authority at the country of		
			origin.		
5.	Coconut (Cocos	Seed nuts/ Seed	Freedom from:	(i) The Seed nuts shall be	Subject to the
	nucifera) &	lings/Pollen	a) Palm lethal yellowing	fumigated with methyl	recommendation,

	related species of Cocoidae		 (phytoplasma) and related strains b) Cadang cadang & Tinangaja (viroid) c) Lethal boll rot (Marasmiellus coco philus) d) Red ring (Rhadinaphelenchus cocophilus (palmarum) e) South American Palm weevil (Rhyncophorus palmarum) f) Leaf minor (Promecotheca cumingi) 	bromide @ 16 gm/cu m for 12 hrs at 20 C under NAP at the port of entry or any other fumigant/ substance in the manner approved by Plant Protection Adviser. (ii) Post-entry quarantine in offshore island facility at Andaman & Nicobar Islands for one reproductive cycle or five years period.	supervision, monitoring and testing by Director, CPCRI, Kasaragod, Kerala
		(ii) Embryo- cultures	 g) Palm kernel borer (<i>Pachymerus spp</i>) Certified that the embryo cultures are obtained from seed nuts collected from mother trees tested and found free from viroids. 	The above conditions shall not apply.	Same as above.
6	Coffee (<i>Coffea</i> spp.) and related species of Rubiaceae	Seeds (beans)& berries (freshly harvested)/ Grafts / Bud wood / Seedlings/ Rooted cuttings.	 Freedom from: (a) American leaf spot (<i>Mycena</i> citricolor, syn. Omphalia flavida) (b) Coffee berry disease (Colletotrichum coffeanum var. virulens) (c) Tracheomycosis (Gibberella xylariodes, syn Fusarium xylarioids) (d) Powdery rust (Hemeleia coffeicola) 	Post entry quarantine for oneyear period.	Subject to the recommendation, supervision, monitoring and testing by the Director, Central Coffee Research Institute, Balehonnur, Chikmagalur (Karnataka).

		(ii) Tissue cultured plants	 (e) Halo blight (<i>Pseudomonas</i> syringae pv. garcae) (f) Leaf spot (<i>Pseudomonas</i> cichorii) (g) Phloem necrosis (<i>Phytomonas leptovasorum</i>) (h) Coffee viruses (coffee ringspot, leaf rugosity, leaf curl, leaf crinkle and mosaic viruses) (i) Coffee berry borers (<i>Hypothenemus hampei</i>, Sophronica ventralis) (j) Coffee thrips (<i>Diarthrothrips coffeae</i>) Certified that the tissue cultured plants tested virus -free 	The above condition shall not apply.	Same as above.
7.	Cotton (Gossypium spp.)	Seeds for sowing	 (i) Freedom from: (a) Witches' broom (<i>Collectotrichum gossypii</i> var. <i>cephalosporioides</i>) (b) Bacterial blight (<i>Xanthomonas campestris</i> pv. <i>malvacearum</i> (African strain) (c) (<i>Anthonomus grandis &</i> other <i>Anthonomus spp.</i>) (d) Seed bruchids (<i>Amblycerus</i> spp.,<i>Megacerus</i> spp., <i>Spermophagus</i> spp.) 	 (i) The seed shall be given acid delinting treatment at the country of origin prior to shipment (ii) The seed shall be fumigated with suitable fumigant at the country of origin and treatment to be endorsed on phytosanitary certificate. 	Subject to the recommendation, supervision, monitoring and testing by Director, Central Cotton Research Institute, Nagpur, (Maharashtra).

8.	Forest plant species (i) Chestnut (<i>Castanea</i> spp.)	(i) Seeds/ Fruits/ Grafts and other planting material	Freedom from: Chestnut blight or canker (<i>Cryphonectria</i> (<i>Endothia</i>) <i>parasitica</i>)-American strain	Post-entry quarantine for a period of one year.	Subject to the recommendation, supervision, monitoring and testing by Director, Forest Research Institute, Dehradun or any other research institute under Indian Council of Forestry
	(ii) Elm (<i>Ulmus</i> spp.)	(i) Seeds/Plants	 Freedom from: (a) Dutch elm disease (<i>Ceratocystis ulmi</i>) - American and European strains (b) Elm mottle virus, (c) Elm bark beetles (Scolytidae) (d) White -banded elm leaf hopper (<i>Scaphoidous</i> <i>luteolus</i>) -Vector of Elm phloem necrosis (e) Seed Bruchid (<i>Bruchidius</i> spp.) 	 (i) Post-entry quarantine for a period of one year. (ii) Fumigation of planting material prior to dispatch at the country of origin and the treatment shall be endorsed on the phytosanitary certificate. 	Education. Subject to the recommendation, supervision, monitoring and testing by Director, Forest Research Institute, Dehradun or any other research institute under Indian Council of Forestry Research and Education
	(iii) Oak (<i>Quercus</i> spp.)	(i) Seeds/ Plants	 Freedom from: (a) Oak wilt (<i>Ceratocystis</i> fagacearum) (b) Oak bark beetles (<i>Pseudopityophthorus</i> spp.) (c) Seed Bruchids (<i>Bruchidius</i> spp.) 	 (i) Post-entry quarantine for a period of one year (ii) Fumigation of planting material prior to dispatch at the country of origin and the treatment 	Subject to the recommendation, supervision, monitoring and testing by Director, Forest Research Institute, Dehradun

(iv) Pine (<i>Pinus</i> spp.) and other coniferous species	(i) Seeds/ Plants	 (i) Freedom from: (a) Pine rusts (Stalactiform blister rust(<i>Cronartium coleosporioides</i>), Comandra blister rust (<i>C. comandrae</i>), sweet fern blister rust (<i>C. comptoniae</i>); Southern fusiform rust (<i>C. fusiforme</i>)) (b) Western gall rust (<i>Endocronartium harknessii</i>) (c) Brown spot needle blight (<i>Mycosphaerella dearnesii</i>, syn. <i>Scirrhia acicola</i>) (d) Seedling die-back and pitch canker (<i>Fusarium moniliforme</i> f.sp. 	shall be endorsed on the phytosanitary certificate (i) Post-entry quarantine for a period of one year.	or any other research institute under Indian Council of Forestry Research and Education Subject to the recommendation, supervision, monitoring and testing by Director, Forest Research Institute, Dehradun or any other research institute under Indian Council of Forestry Research and Education
		 canker (Fusarium moniliforme f.sp. subglutinans). (e) Needle cast (Lophodermium spp.) (f) Pine wood nematode (Bursaphelenchus xylophilus) (g) Seed chalcid (Eurytoma sciromatis) (h) Seed Bruchids (Bruchidius spp.) 	(ii) Fumigation of planting material prior to dispatch at the country of origin and the treatment shall be endorsed on the phytosanitary certificate.	
(v) Poplar <i>Populus</i> spp.)	(i) Stem cuttings/ Plants	Freedom from: (a) <i>Hypoxylon</i> canker	Post-entry quarantine for a period of one year.	Subject to the recommendation,
		(Hypoxylon mammatum)		supervision,

			 (b) Poplar rust (<i>Melampsora</i> <i>medusae</i>) (c) Septoria canker of poplar (<i>Mycosphaerella populorum</i>, syn. <i>Septoria musiva</i>) (d) Gummosis (<i>Euitypa</i> <i>armeniacae</i>) (e) Poplar mosaic virus 		monitoring and testing by Director, Forest Research Institute, Dehradun or any other research institute under Indian Council of Forestry Research and Education
	(vi) Walnut (<i>Juglans</i> spp.	(i) Seeds (nuts)/ Plants	 Freedom from: (a) Bacterial blight (<i>Xanthomonas juglandis</i>) (b) Bark canker (<i>Erwinia</i> nigrifluens) (c) Gummosis (<i>Euitypa</i> armeniacae) (d) Codling moth (<i>Carpocapsa</i> pomonella) 	Post-entry quarantine for a period of one year	Subject to the recommendation, supervision, monitoring and testing by Director, Forest Research Institute, Dehradun or any other research institute under Indian Council of Forestry Research and Education.
9.	Groundnut (Arachis spp.)	Seeds/ Stem cuttings/Plants	 Free from (a) Scab (Sphaceloma arachidis) (b) Bacterial wilt (Burkholderia solanacearum) (African strains) (c) Peanut stripe virus (d) Peanut stunt virus (e) Tobacco streak virus (f) Seed Bruchid (Stator pruininus) (g) Testa Nematode 	 (i) Post-entry quarantine for a period of 6 weeks (ii) Permitted to import only as decorticated seeds. 	Subject to the recommendation, supervision, monitoring and testing by Director National Research Center on Groundnut, Junagadh, Gujarat State and Director General,

			(Aphelenchoides arachidis)		International Crops Research Institute for Semi-Aried Tropics, Patancheru, Andhra Pradesh State.
10.	Potato (<i>Solanum</i> <i>tuberosum</i>) and other tuber bearing species of Solanaceae	(i) Tubers and other planting material	 (i) Freedom from: (a) Potato tuber nematode (<i>Ditylenchus destructor</i>) (b) Stem and bulb nematode (<i>Ditylenchus dipsaci</i>) (c) Potato cyst nematodes [<i>Globodera (Heterodera)</i> rostochiensis & Globodera pallida] (d) Gangrene (<i>Phoma exigua</i> var. foveata) (e) Potato wart (<i>Synchytrium</i> endobioticum) (f) Potato smut [<i>Thecaphora</i> (<i>Angiosorus</i>) solani] (g) Bacterial ring rot (<i>Clavibacter michiganensis</i> subsp. sepedonicus) (h) Potato purple-top wilt & stolbur phytoplasmas (i) Potato viruses viz. Andean potato latent, Andean potato mottle, Arracacha B virus, Potato deforming mosaic, Potato T (capillo virus), Potato yellow dwarf, Potato yellow vein, Potato calico strain of Tobacco ring spot virus, Potato strain of 	Post-entry quarantine for a period of two growth seasons.	Subject to the recommendation, supervision, monitoring and testing by Director, Central Potato Research Institute, Simla, Himachal Pradesh.

		(ii) True seed/micro tubers (in vitro) of potato/tissue- cultured plants	Tobacco streak virus(j) Colarado potato beetle (Leptinotarsa decemlineata)(k) Andean potato weevil (Premnotrypes spp.)The true seed/micro-tubers (in vitro) of potato are obtained from plants tested and certified free from viruses and viroids of potato and other tuber bearing Solanaceous plant species.	The above condition shall not apply.	Import subject to prior approval of Department of Agriculture and Cooperation in the Ministry of
11.	Rice (Oryza sativa)	(i) Seeds for sowing	 (i) Freedom from: (a) Granary weevil (Sitophilus granarius) (b) Sheath brown rot (Pseudomonas fuscovaginae) (c) Seedling rot (Pseudomonas glumae) (d) Bacterial halo blight (Pseudomonas syringae pv. oryzae 	Seed soaking overnight and hot water treatment at 52 deg C for 10 min.	Agriculture Subject to the recommendation, supervision, monitoring and testing by Director, NBPGR, New Delhi/Director, Directorate of Rice Research Hyderabad
12.	Rubber (<i>Hevea</i> spp.)	Seed/ Saplings/ Bud wood.	 (i) Freedom from: (a) South American leaf blight (SALB) (<i>Microcyclus ulei</i> syn. <i>Dothidella ulei</i>) (b) Shot hole borer (<i>Xyleborus</i> <i>ferrugineus</i>) 	 (i) Post-entry quarantine for a period of one year. (ii) The consignment of seed and other planting material shall be treated with suitable systemic fungicide prior to dispatch of the consignment at the country of origin and the treatment shall be 	Subject to the recommendation, supervision, monitoring and testing by the Director, Rubber Institute, Kottayam, (Kerala).

				endorsed on phytosanitary certificate.	
13.	Sugarcane (<i>Saccharum</i> spp.)	(i) Cuttings of setts for planting	 Freedom from: (a) Fiji virus of sugarcane (b) Gummosis (<i>Xanthomonas</i> vasculorum) (c) Sugarcane white leaf (<i>phytoplasmas</i>) (d) Sereh (e) Sugarcane downy mildew (<i>Peronosclerospora</i> sacchari) (f) Mottled stripe (<i>Pseudomonas</i> rubrisubalbicans) (g) Sugarcane viruses viz. bacilliform, mild mosaic, mosaic & streak (h) American sugarcane borer (<i>Diatraea saccharalis</i>) 	 (i) Growing of consignment under post-entry quarantine for a period of one year. (ii) Hot water treatment of dormant sets at 52 ° C for 20 min. followed by dipping in systemic fungicide solutions viz. Benlate at 0.2% just prior to planting. (iii) All packages and packing material shall be disposed off by burning. 	Subject to the recommendation, supervision, monitoring and testing by Director, Sugarcane Breeding Institute, Coimbatore (Tamil Nadu).
		 (ii) True seed or fuzz (iii) Tissue cultured plants 	As stated above at (b) and (e) Certified that the tissue cultured plants tested and found virus-	 (iv) Hot water treatment of fuzz at 58 ° C for 5 min. in water with 50 ppm Tween-20 followed by a short dip in a 10 ppm solution of suitable fungicide just before sowing. The above conditions (i) to (iv) shall not apply 	As above As above.
14.	Sweet potato (<i>Ipomoea</i> spp.)	(i) Stem (vine) cuttings rooted or un-rooted/ tubers	 Freedom from: (a) Scab (<i>Elsinoe batatas</i>) (b) Scurf (<i>Moniliochaetes infuscans</i>) 	(i) Post-entry quarantinefor one growth season.(ii) Freedom from soil.	Subject to the recommendation, supervision, monitoring and

			 (c) Foot rot (<i>Plenodomus</i> <i>destruens</i>) (d) Soil rot (<i>Streptomyces</i> <i>ipomoeae</i>) (e) Bacteria wilt (<i>Pseudomonas</i> <i>batatae</i>) (f) Sweet potato viruses viz. Russet crack; feathery mottle; internal cork; chlorotic leaf spot; vein mosaic; mild mottle and yellow dwarf, vein clearing; chlorotic stunt; Sheffied's virus A and B etc. (g) Sweet potato witches' broom (<i>phytoplasmas</i>) (h) Seed bruchid (<i>Mimosestes</i> <i>mimosae</i>) 		testing by Director, Central Tuber Crops Research Institute, Sreekaryam (Kerala).
		(ii) True seed/ Tissue-cultured plants	Certified that the true seed / tissue-cultured plants are obtained from mother stock indexed or tested and maintained free from viruses and viroids of potato and other tuber bearing Solanaceous plant species.	The above conditions shall not apply.	Same as above.
15.	Tobacco (<i>Nicotiana</i> spp.)	(i) Seed for sowing	 Freedom from: (a) Blue mould (<i>Peronospora</i> tabacina) (b) Broomrape (<i>Orobanche cumana</i>) (c) Tobacco cyst nematode (<i>Heterodera tabacum</i>) 	Post-entry consignment for a period of one growth season.	Subject to the recommendation, supervision, monitoring and testing by Central Tobacco Research Institute, Rajahmundry (AP)

16.	Wheat (<i>Triticum</i> spp.)	(i) Seeds for sowing	 (i) Freedom from: (a) Dwarf bunt (<i>Tilletia</i> contraversa) (b) Ergot (<i>Claviceps purpurea</i>) (c) Spike rot (<i>Pseudomonas</i> atrofaciens) (d) Granary weevil (<i>Sitophilus</i> granarius) 	Post-entry quarantine for one growth season.	Subject to the recommendation, supervision, monitoring and testing by the Director, National Bureau of Plant Genetic Resources, New Delhi.
17.	Yam (<i>Dioscorea</i> spp)	(i) Tubers for planting or propagation	 (i)Freedom from: (a) Yam mosaic virus/ green banding virus (b) Crown gall (Agrobacterium tumefaciens) (c) Weevil (Palaeopus spp.) 	 (i) Growing of consignment under post- entry quarantine for one growth season. (ii) Hot water treatment of tubers at 52oC for 30 minutes followed by chemical dip in fensulphathion at 0.125% for 10-15 min. before planting. 	Subject to the recommendation, supervision, monitoring and testing by Director, Central Tuber Crops Research Institute, Sreekaryam (Kerala).
		(11) Tissue cultured plants	(11) Certified that the tissue cultured plants produced from virus-free mother stock.	The above conditions shall not apply.	Same as above.