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 (*Musa* pp.).	(i) Rhizomes/ Suckers	Freedom from: (a) Moko wilt (*Burkholderia solanacearum* Race-2) (b) Black leaf streak (*Mycosphaerella fijiensis* var. *difformis*) (c) Cameroon marbling (*Phytoplasmas*) (d) Rhizome rot (*Erwinia chrysanthemi* pv. *paradisiaca*) (e) Banana weevil (Hawaii) (*Cosmopolites pruinosus*), (f) Cane weevil (West Indies) (*Metamasius* h*emipterus*), (g) Banana weevil (East African), (*Temnoschoita 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).
2.	Cassava or tapioca *(Manihot esculenta*)	(i) Stem Cuttings	Freedom from: (a) Super elongation (*Sphaceloma manihoticola*) (b) Bacterial leaf spot (*Xanthomonas campestris*.pv. *cassavae*) (c) Cassava bacterial blight (*Xanthomonas campestris* pv. *manihotis*) - American strains. (d) Cassava viruses (*viz*. common mosaic, brown streak, leaf vein mosaic, red mottle and yellow vein banding (e) Casava withces' broom(*phytoplasma*) (f) Shoot fly (*Carpolonchaea chalybea*) (g) Mite (*Mononychellus* spp.) (h) Thrip (*Frankliniella willamsi*)	(i) Post-entry quarantine for a period of one year. (ii) Hot water dipping of cuttings at 50 ^{o} C for 30 min. before planting.	Subject to the recommendation, supervision, monitoring and testing by Director, Central Tuber Crops Research Institute, Sreekaryam (Kerala).
		(ii) Seeds	As stated above at (b) and (c)	The above conditions shall not apply.	Same as above.

		(iii) Tissue cultured plants	Certified that the tissue cultured plants tested and found virus-free.	Same as above.	Same as above.
3.	*Citrus* spp. (lemon, lime, orange, grape fruit, mandarins etc.) and other Rutaceous hosts	(i) Grafts/ Bud wood/ Plants	Freedom from: (a) Mal secco (*Deuterophoma tracheiphila*) (b) Stubborn or little leaf (*Spiroplasma citri*) (c) Cancrosis B (*Xanthomonas campestris* pv. *aurantifolii*) (d) Citrus tatter leaf (Capillo virus) (e) Satsuma dwarf virus (f) Sweet orange scab (*Elsinoe australis*) [redacted]*Sphaceloma fawcetti*i var. *scabiosa*) (g) Citrus burrowing nematode (*Radopholus citr* Plant Quarantine Station, Tiruchi *ophilus*) (h) Florida red scale (*Chrysomphalus aonidium*) (i) Citrus bud mite (*Eriophyes sheldoni*) (j) Citrus rust mite (*Phyllocoptruta oleivora*)	Post-entry quarantine for a period of one year.	Subject to the recommendation, supervision, monitoring and testing by Director, National Research Centre on Citrus, Nagpur, (Maharashtra).
		(ii) Seeds for Propagation	As stated above at (c)	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 (*Theobroma cacao*) and related species.	(i) Seeds (beans)/pods/bud wood/rootstock	Freedom from (a) Swollen shoot virus and related strains (b) [redacted]*Crinipellis (Marasmius) perniciosa)* (c) Watery pod rot (*Monilia* (*Moniliopthora) roreri*) (d) Mealy pod (*Trachysphaera fructigena*) (e) Mirids (*Sahlbergia singularis & Distantiella theobroma*) (f) Cocoa moth (*Acorocercops cramerella*) (g) Cocoa capsid (*Sahlbergiella*	Post-entry quarantine for a period of one year	Subject to the recommendation, supervision, monitoring and testing by the Director, CPCRI, Kasaragod, Kerala

			theobroma) (h) Cocoa beetle (*Steirastoma brevi*) (i) seedling damping-off (*Phytophthora cactorum)* (j) Chestnut downy mildew *(Phytophthora katsurae)* (k) Black pod of cocoa (*Phytophthora megakarya)*		
		(ii) Tissue-cultured plants	Certified that the tissue cultured plants produced in vitro are obtained from mother stock tested and maintained free from cocoa viruses by appropriate authority at the country of origin.	The above conditions shall not apply	
5.	Coconut (*Cocos nucifera*) & related species of Cocoidae	(i) Seed nuts/ Seed lings/Pollen	Freedom from: a) Palm lethal yellowing (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)* g) Palm kernel borer (*Pachymerus spp*)	(i) The Seed nuts shall be fumigated with methyl 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.	Subject to the recommendation, supervision, monitoring and testing by Director, CPCRI, Kasaragod, Kerala
		(ii) Embryo-cultures	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 (*Coffea* spp.) and related species of Rubiaceae	(i) Seeds (beans) & berries (freshly harvested)/ Grafts / Bud wood / Seedlings/ Rooted cuttings.	Freedom from: (a) American leaf spot (*Mycena citricolor*, syn. *Omphalia flavida*) (b) Coffee berry disease (*Colletotrichum coffeanum* var. *virulens*) (c) Tracheomycosis (*Gibberella xylariodes*, syn *Fusarium xylarioids*) (d) Powdery rust (*Hemeleia coffeicola*) (e) Halo blight (*Pseudomonas syringae* pv. *garcae*) (f) Leaf spot (*Pseudomonas cichorii*)	Post entry quarantine for oneyear period.	Subject to the recommendation, supervision, monitoring and testing by the Director, Central Coffee Research Institute, Balehonnur, Chikmagalur (Karnataka).

			(g) Phloem necrosis (*Phytomonas leptovasorum*) (h) Coffee viruses (coffee ringspot, leaf rugosity, leaf curl, leaf crinkle and mosaic viruses) (i) Coffee berry borers (*Hypothenemus hampei, Sophronica ventralis*) (j) Coffee thrips (*Diarthrothrips coffeae*)		
		(ii) Tissue cultured plants	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) *Collectotrichum gossypii* var. *cephalosporioides*) (b) Bacterial blight (*Xanthomonas campestris* pv. *malvacearum* (African strain) (c) (*Anthonomus grandis* & other *Anthonomus spp*.) (d) Seed bruchids (*Amblycerus* spp., *Megacerus* spp., *Spermophagus* 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 (*Castanea* spp.)	(i) Seeds/ Fruits/ Grafts and other planting material	Freedom from: Chestnut blight or canker (*Cryphonectria* (*Endothia*) *parasitica)*-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 Research and Education.
	(ii) Elm (*Ulmus* spp.)	(i) Seeds/Plants	Freedom from: (a) Dutch elm disease (*Ceratocystis ulmi)* - American and European strains (b) Elm mottle virus, (c) Elm bark beetles (Scolytidae) (d) White -banded elm leaf hopper (*Scaphoidous luteolus*) -Vector of Elm phloem necrosis Seed Bruchid (*Bruchidius* 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.	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 (*Quercus* spp.)	(i) Seeds/ Plants	Freedom from: (a) Oak wilt (*Ceratocystis fagacearum*) (b) Oak bark beetles	(i) Post-entry quarantine for a period of one year (ii) Fumigation of planting	Subject to the recommendation, supervision, monitoring and testing by

			(*Pseudopityophthorus* spp.) (c) Seed Bruchids (*Bruchidius* spp.)	material prior to dispatch at the country of origin and the treatment shall be endorsed on the phytosanitary certificate	Director, Forest Research Institute, Dehradun or any other research institute under Indian Council of Forestry Research and Education
	(iv) Pine (*Pinus* spp.) and other coniferous species	(i) Seeds/ Plants	(i) Freedom from: (a) Pine rusts (Stalactiform blister rust(*Cronartium coleosporioides*), Comandra blister rust (*C. comandrae*), sweet fern blister rust (*C. comptoniae*); Southern fusiform rust (*C. fusiforme*)) (b) Western gall rust (*Endocronartium harknessii*) (c) Brown spot needle blight (*Mycosphaerella dearnesii*, syn. *Scirrhia acicola*) (d) Seedling die-back and pitch 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.)	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.	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
	(v) Poplar *Populus* spp.)	(i) Stem cuttings/ Plants	Freedom from: (a) *Hypoxylon* canker (*Hypoxylon mammatum*) (b) Poplar rust (*Melampsora medusae*) (c) Septoria canker of poplar (*Mycosphaerella populorum*, syn. *Septoria musiva*) (d) Gummosis (*Euitypa armeniacae*) (e) Poplar mosaic virus	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
	(vi) Walnut (*Juglans* spp.	(i) Seeds (nuts)/ Plants	Freedom from: (a) Bacterial blight (*Xanthomonas juglandis*) (b) Bark canker (*Erwinia nigrifluens*) (c) Gummosis (*Euitypa armeniacae*) (d) Codling moth (*Carpocapsa pomonella*)	Post-entry quarantine for a period of one year	Subject to 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*	Seeds/ Stem	Free from	(i) Post-entry quarantine for	Subject to the recommendation,

	spp.)	cuttings/Plants	(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 (*Aphelenchoides arachidis*)	a period of 6 weeks (ii) Permitted to import only as decorticated seeds.	supervision, monitoring and testing by Director National Research Center on Groundnut, Junagadh, Gujarat State and Director General, International Crops Research Institute for Semi-Aried Tropics, Patancheru, Andhra Pradesh State.
10.	Potato (*Solanum tuberosum*) and other tuber bearing species of Solanaceae	(i) Tubers and other planting material	Freedom from: (a) Potato tuber nematode (*Ditylenchus destructor*) (b) Stem and bulb nematode (*Ditylenchus dipsaci*) (c) Potato cyst nematodes [*Globodera (Heterodera) rostochiensis* & *Globodera pallida*] (d) Gangrene (*Phoma exigua* var. *foveata*) (e) Potato wart (*Synchytrium endobioticum*) (f) Potato smut [*Thecaphora (Angiosorus) solani*] (g) Bacterial ring rot (*Clavibacter michiganensis* subsp. s*epedonicus*) (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 Tobacco streak virus (j) Colarado potato beetle (*Leptinotarsa decemlineata*) (k) Andean potato weevil (*Premnotrypes* spp.)	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	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 Agriculture
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* (e) Quarantine Weed Seeds	Seed soaking overnight and hot water treatment at 52 ^{0}C for 10 minutes.	(a) Approval of Department of Agriculture and Cooperation, Ministry of Agriculture as per provisions of New Policy on Seed Development (NPSD), 1988. (b) Subject to the recommendation, supervision, monitoring and testing by Director, NBPGR, New Delhi/Director, Directorate of Rice Research, Hyderabad.
12.	Rubber (*Hevea* spp.)	Seed/ Saplings/ Bud wood.	(i) Freedom from: (a) South American leaf blight (SALB) (*Microcyclus ulei* syn. *Dothidella ulei*) (b) Shot hole borer (*Xyleborus ferrugineus*)	(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 endorsed on phytosanitary certificate.	Subject to the recommendation, supervision, monitoring and testing by the Director, Rubber Institute, Kottayam, (Kerala).
13.	Sugarcane (*Saccharum* spp.)	(i) Cuttings of setts for planting	Freedom from: (a) Fiji virus of sugarcane (b) Gummosis (*Xanthomonas vasculorum*) (c) Sugarcane white leaf (*phytoplasmas*) (d) Sereh (e) Sugarcane downy mildew (*Peronosclerospora sacchari*) (f) Mottled stripe (*Pseudomonas rubrisubalbicans*) (g) Sugarcane viruses *viz*. bacilliform, mild mosaic, mosaic & streak (h) American sugarcane borer (*Diatraea*	(i) Growing of consignment under post-entry quarantine for a period of one year. (ii) Hot water treatment of dormant sets at 52 ^{o} 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	Subject to the recommendation, supervision, monitoring and testing by Director, Sugarcane Breeding Institute, Coimbatore (Tamil Nadu).

			saccharalis)	disposed off by burning.	
		(ii) True seed or fuzz	As stated above at (b) and (e)	(iv) Hot water treatment of fuzz at 58 ^{o} 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.	As above
		(iii) Tissue cultured plants	Certified that the tissue cultured plants tested and found virus-free	The above conditions (i) to (iv) shall not apply	As above.
14.	Sweet potato (*Ipomoea* spp.)	(i) Stem (vine) cuttings rooted or un-rooted/ tubers	Freedom from: (a) Scab (*Elsinoe batatas*) (b) Scurf (*Moniliochaetes infuscans*) (c) Foot rot (*Plenodomus destruens*) (d) Soil rot (*Streptomyces ipomoeae*) (e) Bacteria wilt (*Pseudomonas batatae*) (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; Sheff virus A and B etc. (g) Sweet potato witches' broom (*phytoplasmas*) (h) Seed bruchid (*Mimosestes mimosae*)	(i) Post-entry quarantine for one growth season. (ii) Freedom from soil.	Subject to the recommendation, supervision, monitoring and 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 (*Nicotiana* spp.)	(i) Seed for sowing	Freedom from: (a) Blue mould (*Peronospora tabacina*) (b) Broomrape (*Orobanche cumana*) (c) Tobacco cyst nematode (*Heterodera tabacum*)	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 (*Triticum* spp.)	(i) Seeds for sowing	(i) Freedom from: (a) Dwarf bunt (*Tilletia contraversa*) (b) Ergot (*Claviceps purpurea*) (c) Spike rot (*Pseudomonas atrofaciens*) (d) Granary weevil (*Sitophilus granarius*) (e) Quarantine Weed Seeds	Post-entry quarantine for one growth season.	(a) Approval of Department of Agriculture and Cooperation, Ministry of Agriculture as per provisions of New Policy on Seed Development (NPSD), 1988. (b) Subject to the

					recommendation, supervision, monitoring and testing by Director, NBPGR, New Delhi/Director, Directorate of Wheat Research, Karnal.
17.	Yam (*Dioscorea* 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).
		(ii) Tissue cultured plants	(ii) Certified that the tissue cultured plants produced from virus-free mother stock.	The above conditions shall not apply.	Same as above.