

Ministry of Municipality and Environment
Agricultural Affairs Department
Plant Protection and Quarantine Division
Plant Quarantine Unit

Guidebook
for
Importers and Exporters
(2016)

Believing in the importance of plant quarantine as an immune shield protects the agricultural resources of the country against the risk of disease and pests and limits the entry of some agricultural products, which may include material toxic to humans, animals, the soil and the environment, such as fertilisers, agricultural soil amendments and pesticides. Plant Quarantine Law No (24) of 2005 was therefore issued alongside the Implementing Regulation issued by Ministerial Resolution No (61) of 2007 on the regulation of plant quarantine and subsequent laws.

For the benefit of clients importing and exporting agricultural consignments, the Plant Protection and Plant Quarantine Division of the Agricultural Affairs Department has prepared this Guidebook to promote recognition of the most important requirements and measures to be observed prior to importing or exporting any agricultural consignment. This will help to prevent rules from being infringed, which might cause an imported consignment to be rejected or an plant health certificate for an exported consignment not to be issued. This can cause financial losses and restrict international trade.

For more inquiries, please visit the Plant Protection and Plant Quarantine Division of the Agricultural Affairs Department, or contact the following numbers:

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44263864

Guidebook for Importers and Exporters

First: Measures and requirements for importation:

(1) Measures and requirements for importing seeds and agricultural seeding:

(A) Documents required:

1. Valid import permit;
2. Phytosanitary certificate issued by the competent authority in the country of origin;
3. Germination and purity certificate (ISTA);
4. Lists attached with the consignment data which clarify the following:
(Type of seed and its variety - number of packages - quantity - weight).

(B) Requirements:

1. There must be a reference label on the imported packages which shows the following:
 - Type of seed and its variety;
 - Ratio of germination and purity;
 - Production and expiry date;
 - Country of origin and producing company;
 - Seeds have undergone chemical treatment and disinfection before packing;
 - All data must be printed on the package in a clear and non-erasable font.

(C) Specifications of the imported seeds:

1. Seeds must be free from pests and plant diseases (Annex 1);
2. Seeds must be of high ratio of germination and purity according to the variety (Annex 2);
3. Seeds must be free from weeds and other crop seeds;
4. Seeds must be sound as regards breakage, damage and rot.

(2) Measures and requirements for importing pesticides:

(A) Documents required:

1. Valid import permit;
2. Chemical analysis certificate issued from the country of origin or export;

3. Prior consent from the Department of Radiation and Chemicals Protection
4. Lists attached with the consignment data which clarify the following:
(Name of pesticide - number of packages - quantity - weight).

(B) Requirements:

1. The pesticide must NOT be included in the list of restricted and illicit pesticides;
2. Commitment to the restricted usages and concentration ratio of restricted pesticides;
3. The remaining effect ratio of the pesticide must NOT exceed the permitted international ratio;
4. There must be a reference label on the imported packages reflecting the following:
 - Trade name;
 - Active substance and its ratio;
 - Pesticide formulations;
 - Date of production and expiry or validity and manufacturing number;
 - Country of origin and producing company;
 - Usages of the pesticide;
 - Pesticide local registration number;
 - Safety period for using the pesticide;
 - Degree of toxicity and risk posed by the pesticide;
 - Name and address of importing company;
 - First-aids for the pesticide;
 - Reference drawings and signal word and symbol according to international health categorisation;
 - Methods of storage and disposal of empty bottles.

(3) Requirements for importing and exporting fertilisers and agricultural soil amendments (according to the law related to fertilisers and agricultural soil amendments of the GCC and its implementing regulation)

(1) Nitrogenous fertilisers:

1. Urea is subject to the following requirements:
 - The ratio of biuret must NOT exceed 1%;

- The ratio of total nitrogen soluble in water must NOT be less than 46%;
 - Approval must be obtained from the Radiation and Chemicals Protection Department of the Ministry of Environment and from the security authorities, if required.
2. Nitro urea requires approval from the Radiation and Chemicals Protection Department, and the nitrogen ratio must NOT be less than 32%.
 3. The ratio of urea nitrate requires approval from the Radiation and Chemicals Protection Department, and nitrogen must NOT be less than 32%.
 4. The ratio of ammonia requires that nitrogen must NOT be less than 82% and approval must be obtained from the Radiation and Chemicals Protection Department and from the security authorities, if required.

(2) Phosphate fertilisers:

(1) Super monophosphate is subject to the following requirements:

- The ratio of P_2O_5 soluble in water must NOT be less than 16%;
- Percentage humidity must NOT exceed 1.5%;
- It must not be in fossilised or masticated form and it should preferably be in the form of granules.

(2) Tri super phosphate (TSP):

- The ratio of P_2O_5 soluble in water must NOT be less than 42% and the total ratio of phosphorus must not be less than 46%;
- Percentage humidity must NOT exceed 4%;
- Fertiliser must be in the form of granules;
- Fertiliser must NOT be in fossilised, masticated or lumpy forms.

(3) Phosphate rock (raw phosphate):

- The ratio of P_2O_5 must NOT be less than 32%;

Inorganic compound major components fertilisers: These are fertilising components that include more than one of the major components. They include:

- a) NPK contains the components of nitrogen, phosphorus and potassium:

- The minimum concentration of each component must NOT be less than 5%;
 - The aggregate of all components must NOT be less than 20%;
- b) NP wherein the minimum concentration of each component must NOT be less than 5% and the aggregate of components concentration must NOT be less than 18%.
- c) NK wherein the minimum of each component must NOT be less than 5% and the aggregate of components concentration must NOT be less than 18%.
- d) PK wherein the minimum concentration of each component must NOT be less than 5% and the aggregate of components not less than 18%.
- (1) Urea phosphate is subject to the following requirements:
- The ratio of nitrogen soluble in water must NOT be less than 17%;
 - The ratio of phosphorus soluble in water must NOT be less than 44%;
 - The percentage humidity must NOT be less than 1%.
- (2) Ammonium sulphate is subject to the following requirements:
- The ratio of total nitrogen soluble in water must NOT be less than 20% (ammonium) and the ratio of sulphur must NOT be less than 23%.
- (3) Ammonium nitrate is subject to the following requirements:
- The ratio of total nitrogen soluble in water must NOT be less than 33%;
 - Half of this ratio must be in the nitrate formulation and the other half must be ammonium.
- (4) Sodium nitrate is subject to the following requirements:
- The ratio of nitrogen soluble in water must NOT be less than 16%;
- (5) Sodium nitrite is subject to the following requirements:
- The ratio of Nitrogen soluble in water must NOT be less than 20%;
- (6) Di-ammonium phosphate (DAP) is subject to the following requirements:
- The ratio of phosphorus soluble in water must NOT be less than 41%;
 - The ratio of nitrogen soluble in water must NOT be less than 18%;
 - The fertiliser must be in the form of granules (1-3 mm).

(7) Monoammonium phosphate is subject to the following requirements:

- The ratio of phosphorus (P_2O_5) must NOT be less than 48%;
- The ratio of nitrogen soluble in water must NOT be less than 11%.

(8) Monopotassium phosphate is subject to the following requirements:

- The ratio of phosphorus must NOT be less than 52%;
- The ratio of potassium (K_2O) must NOT be less than 34%.

(9) Potassium sulphate is subject to the following requirements:

- The ratio of potassium soluble in water must NOT be less than 50%;
- Percentage humidity must NOT exceed 0.5%;
- The ratio of chlorine in fertiliser must NOT exceed 2%;
- The ratio of sulphur must NOT be less than 17%.

(10) Potassium nitrate is subject to the following requirements:

- The ratio of nitrogen soluble in water must NOT be less than 13%;
- The ratio of potassium soluble in water must NOT be less than 46%.

(11) Potassium chloride is subject to the following requirements:

- The ratio of potassium must NOT be less than 60%;
- The percentage humidity must NOT exceed 1%.

(4) Inorganic secondary component fertilisers:

(A) Calcium fertilisers:

1. Calcium nitrate is subject to the following requirements:

- The ratio of calcium (Ca O) must NOT be less than 19%;
- The ratio of nitrogen soluble in water must NOT be less than 15%;
- Approval by the chemicals and security authorities, if required.

2. Calcium sulphate is subject to the following requirements:

- The ratio of calcium (Ca O) soluble in water must be 27-29%;
- (b) Calcium chloride: the ratio of calcium must NOT be less than 36%;
- (c) Calcium chelates: the ratio of calcium must NOT be less than 10%.

(B) Magnesium fertilisers:

1. Magnesium nitrate is subject to the following requirements:
 - The ratio of magnesium (Mg O) must NOT be less than 15%;
 - The ratio of nitrogen soluble in water must NOT be less than 11%;
 - Approval by the chemicals and security authorities must be obtained, if required.
2. Magnesium sulphate: the ratio of magnesium must NOT be less than 16%.
3. Magnesium chloride: the ratio of magnesium must NOT be less than 25%.
4. Magnesium chelates wherein the ratio of Magnesium must NOT be less than 6%.

(5) Minor component fertilisers:

(A) Simple minor component fertilisers:

(Iron - zinc - manganese - boron - chloride - molybdenum): the ratio of the component must NOT be less than 5% for each fertiliser.

(B) Compound minor component fertilisers: the total substance of components must NOT be less than 10%.

(6) Shade plant fertilisers are subject to the following requirements:

- Their total nutrient content must NOT exceed 16%;
- They must be homogenous, whether liquid or solid, and their constituent component ratio must be identical to the ratio of the components mentioned on the package label;
- There must be a phrase printed on the package (Only for Shade Plants);
- Solid fertilisers must be totally soluble in water 100%.

Documents required for importing different types of chemical fertilisers:

1. Import permit from competent authorities - Plant Protection Division (Department of Agricultural Affairs);
2. Chemical analysis certificate from the country of origin or export;
3. Prior approval from the Department of Radiation and Chemicals Protection;
4. Lists attached to consignment data must reflect (number of packages, quantity and country of origin);
5. Approval by the security authorities, if required.

Requirements for importing types of chemical fertilisers:

In addition to the previous requirements mentioned next to each type of fertiliser, the following requirements apply:

- There must be a reference label on the imported packages indicating the following:
 1. Name of fertiliser and its chemical structure;
 2. Term of expiry;
 3. Usages of the fertiliser;
 4. Rates of using the fertiliser;
 5. Source country and producing company;
 6. Importing company and its address.

(7) Organic fertilisers:

(A) Solid organic fertilisers:

1. Normal organic fertilisers (powder or granules) are subject to the following requirements:
 - The fertiliser must be fully degradable and thermally processed;
 - The fertiliser must NOT be mixed with soil or sand;
 - The fertiliser must be free from weeds seeds, viruses, bacteria, fungi, nematodes, and harmful insect and animal pests;
 - The ratio of organic matter in the imported organic fertiliser must NOT be less than 50% and must NOT be less than 40% in the locally manufactured organic fertiliser;
 - The percentage humidity must NOT exceed 25%;
 - Degree of electrical conductivity (EC) of the fertiliser must NOT exceed 10 mho/cm in an extract 5:1 ;
 - The carbon-to-nitrogen ratio must not exceed 20:1;
 - The pH must not exceed 7.5 in an extract 5:1;
 - Where urea is added, the ratio of biuret must NOT exceed 0.5% of weight;
 - The ratio of sodium chloride must NOT exceed 2% and the ratio of sodium soluble in water must NOT exceed 0.8%;
 - The weight of fertiliser package must be 25 kg, tightly sealed and withstand trading;
 - Type of fertiliser, trade name and other information related to the product must be printed on the package;

- It must be free from radiation and its quantity must NOT exceed 300 Bq/Kg;
- It must be free from toxic heavy components such as arsenic, cadmium, chromium, copper, selenium, lead, mercury, nickel, zinc and molybdenum and its content from these components must NOT exceed the limits of tolerance laid down in the following schedule:

Component	Maximum limit of tolerance (ppm)	Component	Maximum limit of tolerance (ppm)
Arsenic	15	Lead	120
Cadmium	3	Mercury	1.5
Chromium	100	Nickel	50
Copper	150	Zinc	350
Selenium	4	Molybdenum	18

2. Bioorganic fertilisers: these are preparations including micro-organisms capable of supplying necessary nutrients to plants from natural resources. The matter that would decrease the dependence on different chemical fertilisers; wherein the following terms apply:
 - The percent humidity must NOT exceed 30%;
 - Names and the concentration of microbiological additions must be reflected in the analysis certificate;
 - In addition to the other terms mentioned in clause (1) regarding normal organic fertilisers.
3. Seaweed fertilisers, fish fertilisers and blood-bone fertilisers: the inorganic matter and nutrient content must NOT be less than 50%.
4. City waste and sewage sludge fertilisers (NOT to be commercially imported).

(B) Liquid organic fertilisers:

1. Fertilisers in which organic matter is the main compound:
The organic matter must NOT be less than 50% of the wet weight or the total volume.

2. Fertilisers in which the main compound is humic acid or fulvic acid or both:

Their ratio jointly or severally must NOT be less than 12%.

3. Fertilisers that contain organic matter + NPK + humic acids (humic and fulvic) + minor components:

The aggregate of this content must NOT be less than 50% of the wet weight.

4. Seaweed fertilisers, fish fertilisers and blood-bone fertilisers: the organic matter and nutrient content must NOT be less than 25% of the wet weight or the total volume.

** Terms for each type must be available in solid and liquid organic fertilisers according to the following:

1. Fertilisers from waste generated by horse, sheep and cow farming and mixtures thereof:

Components	First Class	Second Class	Third Class
Humidity NOT to exceed	20%	20%	20%
Organic matter NOT to be less than	50%	40%	30%
Total nitrogen NOT to be less than	0.7%	0.5%	0.3%
Sodium chloride NOT to exceed	1%	1.5%	2%
pH	5.5 - 8.5%	5.5 - 8.5%	5.5 - 8.5%

2. Fertilisers from waste generated by poultry farming:

Components	First Class	Second Class	Third Class
Humidity NOT to exceed	20%	20%	20%
Organic matter NOT to be less than	60%	50%	40%
Total nitrogen NOT to be less than	1.5 %	1%	0.5%
Total phosphorus NOT to be less than	6%	5.5%	5%
pH	5.5 - 8.5	5.5 - 8.5	5.5 - 8.5

3. Liquid organic fertilisers:

Types of fertilisers	Terms of components
A. Fertilisers in which the main component is the organic matter,	The organic matter NOT to be less than 50% of the wet weight or the total volume.
B. Fertilisers in which the main component is the humic or fulvic acids or both together,	The ratio of one acid or both NOT to be less than 12%.
C. Fertilisers which contain organic matter + NPK + humic acids + minor components,	The aggregate of this content NOT to be less than the wet weight or the total volume.
D. Seaweed fertilisers, blood-bone fertilisers and any other equivalent fertilisers,	Their organic matter and nutrient content NOT to be less than 25% of the wet weight.

Documents required for importing organic fertilisers:

1. Importing licence from the competent authorities (Department of Agricultural Affairs);
2. Plant health certificate from origin or source company;
3. Thermal treatment certificate from the country of origin;
4. Analysis certificate from the country of origin;
5. Reference label on imported packages.

(8) Agricultural soil amendments:

(A) Solid/liquid organic amendments: improvements which are phyto-genic or of animal origin or both, to which the following specifications apply:

1. The ratio of organic matter must NOT be less than 60%;
2. The pH must NOT be less than -7 in an extract 5:1;
3. Degree of electrical conductivity must NOT exceed 10 mho/cm in an extract 5:1 ;
4. The percent humidity must NOT exceed 30%;
5. The ratio of sodium chloride must NOT exceed 1%;
6. The carbon-to-nitrogen ratio must NOT exceed 35:1;
7. They must be free from diseases, agricultural and animal pests and harmful nematodes.

(B) Inorganic Amendments (solid/liquid):

They must be attached by analysis certificate, Technical Bulletin, chemical symbol, the active substance and its ratio and soil quality appropriate for. This includes the following:

Type of soil amendment	Requirements for components
Agricultural gypsum	The ratio of calcium sulphate NOT to be less than 80%; The ratio of sodium chloride NOT to exceed 3%.
Agricultural sulphur	The ratio of sulphur NOT to be less than 85% for powder, NOT to exceed 8% for liquid and NOT to be less than 80% for micron.
Polymer - Hedrocal - Hidroosl	Water saturation capacity must be cleared.
Sand used to improve the soil properties	Salinity NOT to exceed 4 mho/cm; Calcium carbonate NOT to exceed 10%.
Abanntnayay	The ratio of sodium chloride not to exceed 2%.
Chemical acids	Without technical specifications.
Processed clay soil	The ratio of its salinity NOT to exceed 4 mho/cm; Calcium carbonate NOT to exceed 10%.
Agricultural berlite	Water saturation capacity NOT to be less than 300%.
Natural soil	NOT allowed to enter the country.
Elvirmukleight	Water saturation capacity must be cleared.
Agricultural zeolite	Water saturation capacity NOT to be less than 300%.

***** Documents required for importing inorganic amendments:**

1. Import permit from competent authorities (Department of Agricultural Affairs);
2. Chemical analysis certificate from the country of origin;
3. Approval by the Department of Radiation and Chemicals Protection at the Ministry of Environment;
4. Approval by the security authorities, if required.

(9) Environments and growth mediums:

Documents required:

1. Valid import permit (Department of Agricultural Affairs);
2. Phytosanitary certificate + thermal treatment certificate + chemical analysis certificate for both Albeetmos, compost, mushroom environment and their equivalents from other growth environments;
3. Phytosanitary certificate + thermal treatment certificate for coco peat;
4. Phytosanitary certificate + analysis certificate and approval of chemicals for Potting Soil), to which the following requirements must apply:

Ser.	Growth mediums	Requirements for components
1	Coco peat / Peat moss / Potting soil	<ul style="list-style-type: none">- To be free from weed seeds and harmful pesticides and animal pests;- The ratio of total organic matter NOT to be less than 90% of the dry weight weight/weight of coco peat, potting soil and 80% of peat moss;- The pH NOT to exceed 7 in an extract 5:1 weight on volume;- Degree of electrical conductivity at 25° C NOT to exceed 10 mellisiemens/cm in an extract 5:1 weight: volume ;- The content NOT to exceed the humidity more than 30% for peat moss and potting soil and NOT to be more than 10% for coco peat;- To be packed in tight sealed packages to be free from infection of any other substances, strong and withstand trading.
2	Environment of planting mushrooms	<ul style="list-style-type: none">- To be fully degradable and free from dust and bad smells;- To be free from insects, animal and plant pathogens, sewage sludge and any polluting substances;- In the case of any fertiliser additions, remember type of additions, their quantities and ratio of added components;- In the case of adding useful microorganisms such as bacteria, etc.;

		<p>remember to mention these organisms, their strains and concentration in grams for each cubic cm of the product;</p> <ul style="list-style-type: none"> - The organic matter NOT to be less than 50% of the dry weight; - The pH NOT to exceed 7 in an extract 5:1 weight: volume; - Degree of electrical conductivity at 25° C NOT to exceed 10 mS/cm in an extract 5:1 weight: volume ; - Percentage humidity NOT to exceed 70%; - To be packed in tight sealed packages to be free from infection of any other substances, strong and withstand trading; - The chemical analysis to be identical to the information declared and printed on the package and to be identical to registration; - The ratio of sodium chloride NOT to exceed 1% and the ratio of sodium soluble in water NOT to exceed 0.5%.
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Documents and consents required to release all types of agricultural fertilisers:

1. Plant health certificate + thermal treatment certificate + chemical analysis certificate for organic fertilisers, compost, peat moss, mushroom environment and their equivalents;
2. Plant health certificate + Analysis certificate + approval by the Ministry of Environment regarding potting soil;
3. Chemical analysis certificate + approval by the Ministry of Environment regarding compound chemical fertilisers;
4. Chemical analysis certificate + approval by the Ministry of Environment regarding inorganic amendments;
5. Plant health certificate + thermal treatment certificate for coco peat.

(10) Measures and terms for importing scions of date-palms and ornamental trees:

Documents required:

1. Valid import permit;
2. Plant health certificate from the country of origin or export;

3. Chemical treatment certificate for consignments accompanied by natural soil;
4. Lists attached with consignment data which reflect (Type, Variety and Number).

Terms and specifications:

1. To be unaccompanied by untreated natural soil;
2. The tree trunks and scions to be pruned well and fully;
3. To be sound and taken from resources free from insect and pathological infestation;
4. To be free from pests and quarantine plant diseases;
5. NOT to import varieties or numbers not mentioned in the import license.

(11) Measures and terms for importing agricultural seedlings, plants and trees:

Documents required:

1. Valid import permit;
2. Phytosanitary certificate issued by country of origin or export;
3. Chemical treatment certificate for consignments accompanied by natural soil;
4. Lists attached with consignment data which reflect Type, Variety and Number.

Terms and specifications:

1. The consignment NOT to be shipped with untreated natural soil;
2. The consignment to be free from pests and plant diseases not easily treatable;
3. The consignment NOT to be infected by any pests and quarantine plant diseases.

(6) Measures and terms for importing animal fodders:

These consignments include green and dry fodders and grains used as fodder, whether as whole, crushed or broken grains, and also include dates used as fodder, molasses, silage and any other plant residues that can be used as a natural animal fodder.

Documents required:

1. Valid import permit;
2. Plant health certificate from country of origin or export;
3. Certificate of evaporation, sterilisation, and treatment (of dry grain fodders);
4. List of contents which reflects type, variety, number and quantity.

Requirements and specifications:

1. To be free from pests and plant diseases that may infect fodders in the field and stores.

(7) Measures and requirements for importing plant products:

They include vegetables, fruit, grains, cereals and other field crops.

Documents required:

1. Valid import permit;
2. Plant health certificate from country of origin or export;
3. List of contents which reflects type, variety, number and quantity.

Requirements and specifications:

1. To be free from pests and plant diseases;
2. To be free from natural soil in case of tubers, bulbs and other underground parts.

(12) Measures and terms for importing wood:**Documents required:**

1. Valid import permit;
2. Plant health certificate from source country of unmanufactured wood consignments;
3. Treatment certificate containing the substances used in treatment.

Requirements and specifications:

1. Imported wood must be completely free from bark regarding unmanufactured natural wood;
2. Treatment mark to be clear on the manufactured wood consignments used as substances of packing and wrapping (palettes - boxes - wrapping substances).

(13) Measures and requirements for importing honey bee consignments:

Documents required:

1. Valid import permit;
2. Veterinary health certificate from country of origin or export;
3. List of contents which reflects type, variety, number and quantity.

Requirements and specifications:

1. The quality of imported bees must be from the good strains and wax discs which must be new and free from defects;
2. The packages must be tightly sealed during exporting from country of origin or export;
3. Importing honey bees from the following species is prohibited:
 - Giant bees strain - fierce African bees;
 - Strains on which parasitic Asian mites appear;
 - Consignments and strains showing symptoms of bee diseases and the following quarantine pests:
(Varroa parasite - Acarain parasite - nosema - viral paralysis disease, bee louse, amoebas disease - foul brood disease, foul calcification disease- foul sacculution disease)

Second: Measures and requirements for export:

Documents required:

1. Valid import permit;
2. Copy of origin certificate issued by the Chamber of Commerce and Industry - Qatar;
3. Receipt of payment issued by the financial collecting office in the Department of Agricultural Affairs at the Ministry of Environment;
4. Photocopy of list of contents reflecting type, variety, number and quantity;
5. Photocopy of the issued custom statement.

Requirements and specifications:

1. The exported agricultural consignment is to be inspected by the agricultural quarantine engineer at the departure port in order to issue the agricultural health certificate;
2. After the consignment is inspected by the competent engineer, the importer must not open it or make any changes in its content, unless under the supervision of the agricultural quarantine engineer.

3. The consignment, prepared for export, is to be exported within one week maximum, as of issuance of the relevant plant health certificate.

Annex (1) Lists of pests NOT allowed to be imported into Qatar¹

List of fungi A1

Name	
1	Apiosporina morbosa (Schweinitz) Von Arx
2	Alternaria mali Roberts
3	Armillaria mellea Vohl (Fr.)
4	Botrytis allii
5	Ceratocystis fimbriata f. sp. Platani Ellis & Halsted Walter
6	Cercospora capsici
7	Claviceps purpurea (Fr.) Tal
8	Coleosporium ipomoea
9	Colletotrichum graminocolum
10	Cytospora sacchari
11	Deuterophoma tracheiphila Petri
12	Diaporthe helianthi
13	Diaporthe phaseolorum var. caulivora
14	Endocronartium karknessi (J.P. Moore) Y. Hiratsuka
15	Fusarium oxysporum f. sp. albedinis (Killian & Mair) Malenkon
16	Fusarium oxysporum - f.sp. alaeidis**
17	Fusarium oxysporum f.sp. canariensis
18	Fusarium oxysporum f.sp. cubense (E.F. Smith) Syn & Hans.
19	Glomerella gossypii Edgerton
20	Guignardia citricarpa kiely
21	Guignardia bidwellii (Ell.) Viala & Ravaz
22	Gymnosporangium asiaticum Miyabe ex Yamada
23	Gymnosporangium junpers - Virginianae Schwein
24	Gymnosporangium fuscum Farlow
25	Puccinia pittieriana P.Hennings
26	Sclerotium cepivorum Berk
27	Sclerophthora macrospora

¹ Note: List according to Law No. 24 of 2005 Concerning Agricultural Quarantine; added by JKI; source: <http://almeezan.qa/MOJPortal/LawOtherAttachments.aspx?id=210&language=en>

28	<i>Septoria lycopersici</i> var. <i>malagutii</i> Ciccar one & Boerema
29	<i>Spongospora subterranea</i> (Wallr.) Lagerh
30	<i>Sphaceloma arachidis</i> Bitancourt & A E. Jenkins.
31	<i>Stenocarpella macrospora</i> (Earle) Sutton
32	<i>Stigmina carpophila</i> (Lev.) M.B.Ellis
33	<i>Synchytrium endobioticum</i> (Schilbersky) Percival
34	<i>Tilletia indica</i> (Mittra.) Mund
35	<i>Tilletia controversa</i> Kuhn
36	<i>Urocystis cepulae</i> Frost
37	<i>Ustilago maydis</i> (De Camdolle) Corda
38	<i>Ustilago scitaminea</i>
39	<i>Venturia</i> spp
40	<i>Verticillium albo - atum</i> Reink & Berthold
41	<i>Verticillium dahliae</i> Klebahn
42	<i>Monilinia fructicola</i> (Winter) Honey
43	<i>Mycosphaerella musicola</i> leach
44	<i>Mycosphaerella fijiensis</i>
45	<i>Mycosphaerella dearnessii</i> M.E. Barr
46	<i>Mycovellosiella koepkei</i>
47	<i>Peronosclerospora maydis</i>
48	<i>Peronosclerospora sacchari</i>
49	<i>Peronospora tabacina</i> Adam
50	<i>Phoma andina</i> Turkensteen
51	<i>Pestalotiopsis Palmarum</i> (Che.) Stey
52	<i>Phacoramularia capsicicola</i>
53	<i>Phoma exigua</i> var. <i>foveata</i> (Foister) Boerema.
54	<i>Phomopsis viticola</i>
55	<i>Phomopsis sclerotioides</i>
56	<i>Phytophthora cinnamomi</i> Rands
57	<i>Phytophthora megasperma</i> f. sp, <i>glycinea</i> Kuan & Erwin
58	<i>Phytophthora Palmivora</i> (Butl.) Butl.
59	<i>Phymatotrichopsis omnivora</i> (Butl.) Butl.
60	<i>Plasmodiophora brassica</i> Woronin
61	<i>Plasmopara halstedii</i> (Farlow) Berlese & de Toni
62	<i>Puccinia kuehnii</i>

63	<i>Puccinia psidii</i>
64	<i>Puccinia melanocephala</i>

List No. 1
List of fungi
A2

Name	
1	<i>Phytophthora capsici</i> Leonian
2	<i>Colletotrichum</i> spp.
3	<i>Phytophthora fragariae</i> var <i>fragariae</i> Hichman
4	<i>Phytophthora infestans</i> (Mont.) Bv.
5	<i>Deuterophoma tracheiphila</i> Petri

List No. 1
List of nematodes
A1

Name	
1	<i>Anguina tritici</i> (Stein.) Filip.
2	<i>Aphelenchoides besseyi</i> Christie
3	<i>Aphelenchoides fragariae</i> Ritzema Bos.
4	<i>Bursaphelenchus xylophilus</i> (Steiner & Buhrer) Nickle
5	<i>Heterodera</i> spp.
6	<i>Meloidogyne chitwoodi</i> Golden, O' Bannon, Santo & Finley
7	<i>Meloidogyne fallax</i>
8	<i>Nacobbus aberrans</i> (Thorne) Thome & Allen
9	<i>Globodera rostochiensis</i> Wollenweber
10	<i>Globodera pallida</i> (Stone) Behrens
11	<i>Pratylenchus coffeae</i> (Zimmermann) Goodey
12	<i>Radopholus citrophilus</i> Huettel et al.
13	<i>Rhadinaphelenchus cocophilus</i> Cobb
14	<i>Xiphinema americanum</i> Cobb sensu Lato
15	<i>Xiphinema californicum</i> Lamberti & Blevé-Zacheo

List No. 1
List of nematodes
A2

Name	
1	<i>Ditylenchus destructor</i> Thorne
2	<i>Ditylenchus dipsaci</i> (Khun) Filipjev
3	<i>Helicotylenchus</i> spp.
4	<i>Pratylenchus</i> spp.

5	Radopholus similis (Cobb) Thome
6	Rotylenchulus reniformis Linford & Oliveira

List No 2

List of regulated non-quarantine nematodes

Name	
1	Meloidogyne spp.
2	Tylenchulus semipenetrans Cobb.

List No. 1

List of bacteria

A1

Name	
1	Agrobacterium rhizogenes
2	Erwinia amylovora (Burrill) Winslow et al.
3	Pantoea stewartii Pv. stewartii (Erwinia stewartii) (Smith) Merg. et al
4	Clavibacter xyli var. xyli
5	Curtobacterium flaccumfaciens pv. betae
6	Curtobacterium flaccumfaciens pv. flaccumfaciens (Hedges) Collins & Jones
7	Pseudomonas phaeolicola
8	Pseudomonas syringae pv. persicae (Prunier et al.) Young et al.
9	Xanthomonas fragariae Kennedy & Knig
10	Xylella fastidiosa (Wells et al)
11	Xylophilus ampelinus (Panagopoulos) Willems et al
12	Xanthomonas campestris pv. glycines (Nakone) Malgrea
13	Xanthomonas campestris pv. vasculorum
14	Xanthomonas oryzae pv. oryzae (Ishiyama) Swings et al.

List No. 1

List of bacteria

A2

Name	
1	Agrobacterium tumefaciens (E. F. Sm & Towns)
2	Clavibacter michiganensis pv. michiganensis (Smith) Davis et al.
3	Clavibacter michiganensis pv. sepedonicus (Kotthoff) Davis et al.
4	Clavibacter michiganensis pv. insidiosus (Mc. Culloch) Davis et al.
5	Citrus greening bacterium (Liberobacter spp.)
6	Pseudomonas syringae pv. lachrymans (Smith) Yabuuchi et al.
7	Ralstonia solanacearum
8	Xanthomonas axonopodis pv. citri

9	Xanthomonas axonopodis pv. phaseoli (smith) Dowson
10	Xanthomonas campestris pv. alfalfae (Hasse) Dye
11	Xanthomonas campestris pv. mangiferaeindica

List No 2

List of regulated non-quarantine bacteria

Name	
1	Erwinia carotovora sub.sp. atroseptica (Van Hall) Dye
2	Erwinia carotovora sub.sp. carotovora (Jones) Dye
3	Streptomyces scabies (Thaxter) Wakesman & henrici

List No. 1

List of viruses

A1

Name	
1	tymovirus Andean potato latent
2	comovirus Andean potato mottle
3	nepovirus Arabis mosaic
4	potyvirus Banana bract mosaic
5	luteovirus'= Abaca bunchy top virus' Banana bunchy top
6	badnavirus Banana streak
7	potyvirus Bean common mosaic
8	bigeminivirus Bean golden mosaic
9	comovirus Bean pod mottle
10	potyvirus Bean yellow mosaic
11	vein furovirus Beet necrotic yellow
12	nepovirus Blueberry leaf mottle
13	Citrus vein enation - (woody gall Luteovirus) disease
14	Citrus leaf rugose ilarvirus
15	Citrus leprosis rhabdovirus
16	Citrus tatter leaf capillovirus
17	Citrus yellow mosaic badnavirus
18	Citrus ringspot virus = Citrus Psorosis virus Complex A and B.
19	Cowpea mild mottle carlavirus
20	Garlic yellow streak potyvirus
21	Grapevine fan leaf nepovirus
22	Groundnut rosette assistor luteovirus
23	Impatiens necrotic spot tospovirus
24	Pea seed-borne mosaic potyvirus
25	Pea stunt virus = Red clover vein mosaic carlavirus
26	Peach rosette mosaic nepovirus

27	Peanut clump furovirus
28	Peanut stripe potyvirus
29	Plum pox potyvirus
30	Potato mop top virus (furovirus)
31	Potato yellow dwarf nucleorhabdovirus
32	Potato yellow mosaic bigeminivirus
33	Potato yellow vein disease
34	Raspberry ringspot nepovirus
35	Rice black - streaked dwarf fijivirus
36	Satsuma dwarf virus (nepovirus)
37	Rice hoja blanca tenuivirus
38	Rice tungro virus = Rice tungro bacilliform badnavirus = Rice tungro spherical waikavirus
39	Rice yellow mottle sobemovirus
40	Strawberry latent C (?) rhabdovirus
41	Strawberry latent ringspot nepovirus
42	Strawberry vein banding (?) caulimovirus
43	Sugarcane mosaic potyvirus
44	Sugarcane Fiji disease fijivirus
45	Sugarcane streak monogeminivirus
46	Sugarcane sereh disease
47	Tobacco leaf curl bigeminivirus
48	Tobacco rattle tobnavirus
49	Tomato bushy stunt tombuvirus
50	Tomato ringspot nepovirus
51	Tomato spotted wilt tospovirus

List of viruses

A2

Name	
1	Alfalfa mosaic alfamovirus.
2	Barley stripe mosaic hordeivirus
3	Citrus impietratura disease (viruslike disease)
4	Citrus tristeza closterovirus.
5	Cucumber green mottle mosaic tobamovirus.
6	Cucumber mosaic cucumovirus.
7	Lettuce mosaic potyvirus.
8	Lettuce infection yellows closterovirus.
9	Maize streak geminivirus
10	Onion yellow dwarf potyvirus

11	Papaya droopy necrosisvirus
12	Papaya mosaic potexvirus.
13	Papaya ring spot potyvirus.
14	Potato leaf roll luteovirus
15	Potato X potexvirus.
16	Potato Y potyvirus.
17	Squash leaf curl bigeminivirus.
18	Squash mosaic comovirus.
19	Tomato mosaic tobamovirus
20	Tomato yellow leaf curl bigeminivirus.
21	Watermelon mosaic virus – 2 potyvirus.
22	Zucchini yellow mosaic potyvirus.

List No. 1
Phytoplasma
A1

Name	
1	Apple proliferation
2	Apple Decline
3	Apricot chlorotic leafroll
4	Austrstion lucerne yelloes
5	Chat fruit
6	Cherry albino
7	Cherry Blossom Anomaly
8	Grapevine flavescence doree
9	Hydrangea Virescence
10	Molieres Disease
11	Palm lethal yellowing
12	Papaya bunchy Top
13	Papaya die back
14	Peach Red suture
15	Peach rosette
16	Peach X disease
17	Peach yellows
18	Pear decline
19	Potato purple top wilt
20	Potato stolbur
21	Rubbery wood
22	Strawberry Aster yellows
23	Strawberry Geen Petal

24	Strawberry Lethal Decline
25	Strawberry Multiplier Disease
26	Strawberry Witches Broom
27	Sugarcane grassy stunt

**Phytoplasma
A2**

Name	
1	Alfalfa phyllody
2	Lime witches broom

**List No. 1
Viroids**

Name	
1	Avocado sun blotch
2	Chrysanthemum stunt
3	Citrus exocortis
4	Coconut cadang-cadang
5	Cucumber pale fruit
6	Peach spindle tuber
7	Potato spindle tuber

**List No. 1
List of insects
A1**

Name	
1	Aceria sheldoni (Ewig)
2	Aleurocanthus spiniferus (Quaintance)
3	Aleurocanthus floccosus (Maskell)
4	Aleurocanthus woglumi (Ashby)
5	Amauromyza maculosa
6	Anarsia lineatella Zeller
7	Anastrepha fraterculus Wiedemann
8	Anastrepha ludens loew
9	Anastrepha obliqua Macquart
10	Anastrepha serpentina Wiedemann
11	Anastrepha suspensa Loew
12	Anthonomus grandis Boheman
13	Araecerus fasciculatus (De Geer)

14	<i>Asterolecanium phoenicis</i>
15	<i>Bactrocera atrisetosa</i> Perkins
16	<i>Bactrocera cucurbitae</i>
17	<i>Bactrocera tsuneonis</i> Miyake
18	<i>Bactrocera tyroni</i> Froggatt
19	<i>Bactrocera melonata</i> Coquillett
20	<i>Bactrocera melanotus</i> Coquillett
21	<i>Bactrocera minax</i> (Enderlein)
22	<i>Blitopertha orientalis</i> (Waterhouse)
23	<i>Brevipalpus californicus</i> (Banks)
24	<i>Brevipalpus lewisi</i> (McGregor)
25	<i>Bruchidius incarnatus</i> (Boheman)
26	<i>Bruchus rufimanus</i> (Boheman)
27	<i>Bryobia praetiosa</i> (Koch)
28	<i>Cacoecimorpha pronubana</i> (Hubner)
29	<i>Carposina niponensis</i>
30	<i>Cephus cinctus</i> (Norton)
31	<i>Cephus pygmeus</i> (Linnaeus)
32	<i>Cerambyx</i> sp.
33	<i>Ceratitis rosa</i> (Karsch)
34	<i>Chilo suppressalis</i> (Walker)
35	<i>Cicadulina mbila</i> (Naude')
36	<i>Chrysomphalus aonidum</i> (Linnaeus)
37	<i>Cosmopolites sordidus</i> (Germar)
38	<i>Cryptotermes</i> sp.
39	<i>Cydia nigrican</i> (Fabricius)
40	<i>Cydia inopinata</i> (Heinrich)
41	<i>Cydia molesta</i> (Busck)
42	<i>Cydia packardi</i> (Zeller)
43	<i>Cydia pomonella</i> (Linnaeus)
44	<i>Cydia prunivora</i> (Walsh)
45	<i>Diaphorina citri</i> (Kuwayana)
46	<i>Diaspidiotus perniciosus</i> (Comstock)
47	<i>Diatraea saccharalis</i>
48	<i>Epitrix cucumeris</i> (Harris)
49	<i>Epitrix tuberis</i> (Bry)
50	<i>Eutetranychus banksi</i> (McGregor)
51	<i>Eutetranychus lewisi</i>
52	<i>Eutetranychus orientalis</i> (Klein)
53	<i>Eutetranychus sexmaculatus</i> (Riley)

54	<i>Fiorinia japonica</i> (Kuwana)
55	<i>Frankliniella fusca</i> (Hinds)
56	<i>Gonipterus gibberus</i> (Boisduval)
57	<i>Grapholita molesta</i> (Busck)
58	<i>Helicoverpa zea</i> (Boddie)
59	<i>Lepidosaphes beckii</i> (Newman)
60	<i>Lepidosaphes gloverii</i> (Packard)
61	<i>Lepidosaphes ulmi</i> (Linnaeus)
62	<i>Liptinotarsa decemlineata</i> (Say)
63	<i>Linepithema humile</i> (Mayr)
64	<i>Liriomyza brassicae</i> (Riley)
65	<i>Liriomyza huidobrensis</i>
66	<i>Lopholeucapsis japonica</i> (Cockerell)
67	<i>Margarodes</i> spp.
68	<i>Monochamus alternatus</i> (Hope)
69	<i>Monochamus carolinensis</i> (Olivier)
70	<i>Myndus crudus</i> (Van Duzee)
71	<i>Naupactus leucolomus</i> Boheman
72	<i>Oligonychus pratensis</i> (Banks)
73	<i>Opogona sacchari</i>
74	<i>Panonychus citri</i> (MvGregor)
75	<i>Panonychus ulmi</i> (Koch)
76	<i>Parabemisia myricae</i> (Kuwana)
77	<i>Parasaissetia nigra</i> (Nietner)
78	<i>Pentalonia nigronervosa</i> (Coquerel)
79	<i>Penthaleus major</i> (Duges)
80	<i>Petrobia lateens</i> (Moller)
81	<i>Phoracantha semipunctata</i> (Fabricius)
82	<i>Popillia japonica</i> (Newman)
83	<i>Premnotrypes</i> spp.
84	<i>Prostephanus truncatus</i> (Horn)
85	<i>Quadraspidotus perniciosus</i> (Comstock)
86	<i>Rhagoletis pomonella</i> (Walsh)
87	<i>Rhynchophorus palmarum</i> (Linnaeus)
88	<i>Rhynchophorus vulneratus</i> (Panzer)
89	<i>Scirtothrips aurantii</i> (Faure)
90	<i>Scirtothrips citri</i>
91	<i>Spodoptera eridiana</i> (Cramer)
92	<i>Spodoptera frugiperda</i> (JE. Smith)
93	<i>Sternochetus mangiferae</i>

94	<i>Thrips palmi</i> Karny
95	<i>Toxoptera citricida</i> Kirkaldy
96	<i>Trioza erytrae</i> (Del Guericco)
97	<i>Trogoderma granarium</i>
98	<i>Unaspis citri</i> (Comstock)
99	<i>Unaspis yanonensis</i> (Kuwana)
100	<i>Viteus vitifoliae</i> Fitch
101	<i>Zeuzera pyrina</i> (Linnaeus)

**List of insects
A2**

Name	
1	<i>Aceria mangiferae</i> (Sayed)
2	<i>Aonidiella citrina</i> (Craw)
3	<i>Aonidiella aurantii</i> (Maskell)
4	<i>Bactrocera ciliatus</i>
5	<i>Bactrocera dorsalis</i>
6	<i>Bactrocera olea</i> (Gmelin)
7	<i>Bactrocera zonata</i> (Saunders)
8	<i>Bemisia tabaci</i>
9	<i>Carpomya incompleta</i>
10	<i>Carpomya vesuviana</i>
11	<i>Ceratitis capitata</i> (weidmann)
12	<i>Conotrachelus nenuphar</i>
13	<i>Frankliniella occidentalis</i> (pergande)
14	<i>Liriomyza sativae</i> (Blanchard)
15	<i>Liriomyza trifolii</i>
16	<i>Nipaecoccus viridis</i> (Newstead)
17	<i>Ommatissus lybicus</i>
18	<i>Oryctes</i> spp.
19	<i>Perkinsiella saccharicida</i> (Kirkaldy)
20	<i>Phyllocnistis citrella</i>
21	<i>Rhynchophorus ferrugineus</i>
22	<i>Scirtothrips dorsalis</i>
23	<i>Spodoptera exigua</i>
24	<i>Spodoptera litura</i>
25	All other fruit flies not mentioned in A1
26	All other-leaf miners not mentioned in A1

List No 2
List of regulated non-quarantine insects

Name	
1	Aphis craccivora (Koch)
2	Aphis gossypii (Glov)
3	Aphis spiraeicola (Patch)
4	Apomecyna lameerei (Pic)
5	Aulacophora africana (Weise)
6	Bacterocera vertebratus (Bez)
7	Campylomma impicta (Wagner)
8	Carpophilus dimidiatus (Fabricius)
9	Carpophilus hemipterus (Linnaeus)
10	Cryphalus dilutus (Eichhoff)
11	Frankliniella shultzi (Trybon)
12	Lipaphis erysimi (Kalt)
13	Macrocoma sp.
14	Megalothrips sp.
15	Myllocerus undecimpustulatus (Faust)
16	Myzus persicae (Sulz)
17	Procontarinia matteiana
18	Pseudaspidopectus hypheniacus (Hall)
19	Pseudococcus spp
20	Rhopalosiphum maidis (Fitch)
21	Sphenoptera Arabica (Gory)

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Annex (2) reflecting the minimum limit of germination ratio and purity of different types and varieties of seeds and seeding which have been set per the ratios specified by the International Seed Testing Association.

(Page 34)

- The minimum germination of all seeds of ornamental plants and trees must NOT be less than 85% and minimum purity must NOT be less than 96%;
- The minimum germination of all fruits seeds must NOT be less than 90% and minimum purity must NOT be less than 98%;