INDUSTRY / USDA-APHIS-PPQ OFFSHORE GREENHOUSE CERTIFICATION PROGRAM (OGCP) FRAMEWORK

Version 2.0- August 2022

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1 BACKGROUND

PPQ and the U.S. nursery industry are working together to protect American agriculture by ensuring that imported plant cuttings are free from potentially harmful regulated pests and diseases. Growing plants in certified greenhouses under a systems approach can effectively mitigate most of the pest risk offshore. Channeling the bulk of the high-volume, highly seasonal vegetative cutting trade into a certification program will not only safeguard American agriculture but will also address peak season challenges at PPQ's plant inspection stations. By inspecting low risk plant material at a reduced intensity or frequency, PPQ inspectors can focus inspections on higher risk imports.

To do this, PPQ and the nursery industry partnered to implement the offshore greenhouse certification program (OGCP). As part of this program, participating offshore facilities may benefit with a reduced inspection frequency at the U.S. plant inspection stations (PIS) when shipping pest free plant cuttings for commercial consignments that meet the following criteria:

- Consist of only unrooted cuttings from the APHIS-approved taxa list (see Appendix 2)
- Unrooted cuttings must be produced in a greenhouse which is certified yearly by APHIS.
- Use APHIS CORE Message Set[1] single window system to submit required import data
- Meet all permit and import requirements as stated in 7 CFR 319.37 and Plants for Planting Manual.

Participation in the OGCP is voluntary, and it is not a condition of entry for generally admissible plants.

While similar to the APHIS Minimum Sanitation Protocols for Offshore Geranium Cutting Production, OGCP will remain distinct from the *Pelargonium* program, a greenhouse certification program designed to mitigate the risk of introducing the select agent *Ralstonia solanacearum* race 3 biovar 2, a serious pathogen of tomatoes, potatoes, and eggplants.

For additional information, please refer for the OGCP website, review the Frequently Asked Questions or contact the program manager at OGCP@usda.gov.

[1] For more information about APHIS CORE Message Set please visit: https://www.cbp.gov/document/guidance/aphis-ace-pga-message-set-implementation-guide-core and https://www.aphis.usda.gov/aphis/ourfocus/importexport/ace.

2 PROGRAM REQUIREMENTS

2.1 ELIGIBLE COMMODITY

Only unrooted cuttings of generally admissible approved taxa are eligible in the OGCP (see Appendix 2). Several types of cuttings can be taken from the parent stock depending on the point at which the cutting is taken, including stem cuttings, leaf cuttings, and leaf-bud cuttings. For stem cuttings, the stage of the cutting shall be herbaceous or softwood only.

2.2 ANNUAL CERTIFICATION

All offshore facilities or productions site must be certified by APHIS before participating in the OGCP. Certification will require a mandatory, yearly, full system facility audit by APHIS which includes meeting or exceeding minimum standards for facility construction, security, production and sanitation, pest management, training, and record-keeping. APHIS will work with the nursery industry and appropriate national plant protection organizations (NPPOs) to audit and issue/re-issue the facility certificate once a year.

2.3 USE THE APHIS'S CORE MESSAGE SET

Facilities participating in the program must submit the required import information, producer name and certified facility number using the APHIS's core message set in **all** unrooted cuttings consignments (eligible and not eligible for the OGCP) from the certified facility. This system allows for an expedited inspection process at the USDA plant inspection stations. Shipments from participating facilities will be inspected at a reduced rate, unless pest or problems are experienced, expediting the transit time from the facility to the end customer.

For questions about the APHIS core message set, please contact ACE.ITDS@usda.gov.

2.4 IMPORT REQUIREMENTS

All OGCP exports of generally admissible unrooted cuttings must meet all the permit and import requirements stated in 7 CFR 319.37 and the Plants for Planting Manual.

Only consignments consisting solely of approved plant taxa from a single approved facility are eligible for the program and will benefit from the reduced frequency of inspection at the port of entry. Comingling of approved and non-approved plant taxa or comingling of plants from different approved facilities is not eligible for the program and, hence, will be not benefit from a reduced inspection rate at the port of entry.

3 MINIMUM SANITATION AND PRODUCTION PROTOCOL

3.1 PLANT PRODUCTION PROCESS

3.1.1 Nuclear Block- The first generation (G1) refers to the tissue culture or original nuclear plants that have been tested and found free of pathogens of concern. Nuclear stock plant blocks are subject to periodic renewal.

3.1.2 Increase Block- Generation two (G2) or generation three (G3-second increase block) plant material is propagated from G1 or G2, respectively, in separate, defined growing zones or increase blocks subject to the minimum facility, production, and sanitation standards mentioned in this document.

3.1.3 Production Block- Generation three (G3) or four (G4) plant material is propagated from G2 or G3, respectively, in dedicated structures or production zones that are separate from increase blocks, and subject to the minimum facility, production, and sanitation standards. Plant material destined for delivery to the nursery's customer.

3.1.4 Under this systems approach, there is a unidirectional flow of plants for planting which starts with nuclear stock, then increase, then production (Figure 1). Production stock is not used to renew the nuclear stock unless plants are subjected to the clean-up and testing process used to develop the nuclear stock in the first place. Facilities must provide documentation that confirms the clean-up and testing process, if applicable.

3.1.5 In order to safeguard against cross-contamination, approved plant taxa should be grown on a dedicated growing area with adequate spacing and/or physical barriers from unapproved, generally admissible plant taxa. OGCP approved plant taxa must not be grown in the same greenhouse compartment with any other plant genus that is restricted importation into the United States.

3.1.6 Access to increase blocks and production blocks should be restricted and only allowed when adequate preventive hygiene measures are taken.

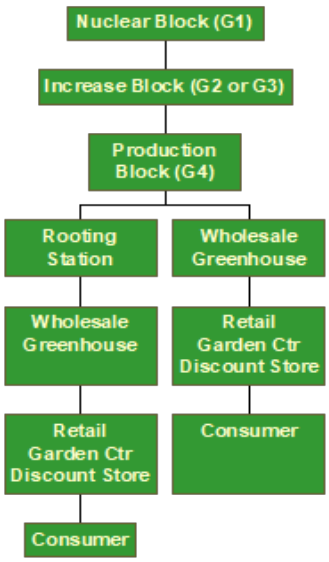

FIGURE 1: VEGETATIVE CUTTING PRODUCTION PROCESS

3.2 Place of Production Infrastructure

3.2.1 A place of production (or facility) is considered the regulated physical entity for purposes of this program. Entry to places of production must be secured to avoid passage of contaminated plant materials. Trucks entering the facility must have tires cleaned and disinfected before entry into the production area or vehicles should be excluded from the production area.

3.2.2 All plant material grown for the purpose of production of approved plants for planting destined for the United States must be propagated and maintained in greenhouses.

3.2.3 Greenhouse and Grading area Infrastructure:

3.2.3.1 Any infrastructure where plants are exposed to the environment such as in greenhouses and grading area must be covered with an approved material (glass, polycarbonate, or polyethylene). The sides of greenhouses must be enclosed with an approved covering or screen with openings of 1.2 mm x 1.2 mm (No. 16) or less. Screens and other physical barriers must be used to prevent entry of pests into the structure.

3.2.3.2 A buffer composed of gravel, crushed rock, concrete, or covered by weed cloth must surround the outer perimeter of the greenhouses. This buffer must be at least one meter wide, free of plants, grass or weeds and, sloped and/or with canals so that water drains away from the greenhouse.

3.2.3.3 Floors must be a hard surface such as concrete, crushed rock, or weed cloth with a layer of gravel covering all bare soil. Floors must drain properly to prevent puddles of water.

3.2.3.4 Equipment surfaces that regularly come in contact with stock production plants (*e.g.*, ends of hoses or watering wands) must be surface disinfected before each use and may not come in contact with the floor while in use (see Appendix 3).

3.2.3.5 Production stock plants shall be rooted and grown in approved growing media (see Table 7-1 in Plants for Planting Manual) on benches raised at least 46 cm above the floor to prevent contamination from splashing water.

3.2.3.6 Entry to the greenhouse must be through a vestibule with closing doors to deter the entry of pests. The vestibule must have two separate doors (screens or solid material) that form a distinct enclosed environment separating the outdoors from the inside of the greenhouse. One door to the vestibule must be closed before the second one is open. The vestibule must be directly next to or provide direct access to the sanitation station- an area equipped with wash station(s), foot bath(s), and protective clothing (*e.g.,* aprons, lab coats, gloves).

3.2.3.7 At the discretion of APHIS and NPPO representatives, resolutions of pest problems may involve actions against only certain greenhouses within a place of production, as individual structures may effectively isolate pest problems.

3.2.4 Packinghouse and Cold Room Infrastructure:

3.2.4.1 Packing area must be cleaned and disinfected before use.

3.2.4.2 Packing and loading must take place inside an enclosed structure during the day.

3.2.4.3 Physical barriers (such as a double door system, air curtains, screens with a minimum mesh size of 1.2 mm x 1.2 mm and / or transparent plastic strips that hang vertically on the doors) must be installed to prevent possible entry of pests or hitchhiker insects into the packing area. There must be no gaps between the wall and floor and between the walls and the ceiling.

3.2.4.4 OGCP plant material destined for the United States should be segregated from plant material destined for other markets.

3.2.4.5 All packing and shipping containers must be free of soil, weeds, dirt and pests.

3.2.4.6 Packing material must meet import requirements under section 2-21 “Packing and Approved Packing Material” in the Plants for Planting Manual.

3.2.4.7 If live plant pests are found during the packing plant operation, the process must be suspended until a phytosanitary corrective action (e.g., treatment, re-conditioning of plant material) is implemented that guarantees the pest control and that action must be properly documented.

3.3 Minimum Production and Sanitation Standards

3.3.1 All facility employees must wear protective clothing and follow the sanitation practices described below to mitigate the risk of introducing regulated pests into production areas. Sanitation practices in greenhouses, cold rooms and grading facilities will be strictly enforced. See Appendix 3 for a list of surface, skin and clothing APHIS-approved disinfectants.

3.3.2 Wash Stations:

3.3.2.1 Facilities must have sanitation stations in greenhouses for employees to clean all exposed body parts (*e.g.,* hands, arms, legs) that may come in contact with plant material. All exposed body parts must be properly washed with soap and/or disinfectant prior to entering the production area of the greenhouse.

3.3.2.2 If latex or vinyl gloves are used, they must be disinfected or changed before and after each use.

3.3.3 Footwear:

3.3.3.1 Facilities must provide a sanitation area for employees to ensure their footwear is clean prior to entering the facility. Facilities must provide foot baths and tools to brush or rinse footwear free of soil and debris or provide footwear to be worn specifically within production zones.

3.3.3.2 The volume of disinfectant used in footbaths must be adequate to ensure that soles and lower portions of footwear are submerged. Disinfectant must be changed a minimum of twice daily, with debris in reservoirs being removed prior to replacement of the disinfectant. The facility must maintain a log of disinfectant type, and the time and personnel responsible for changing the foot bath(s).

3.3.4 Protective Clothing:

3.3.4.1 All personnel upon entry into plant stock increase or production areas must wear protective clothing (e.g., clean lab coats, aprons, or clothing dedicated for use within specific plant production zones). Separate sets of protective clothing designed to come into contact with the plant material must be dedicated to each greenhouse. Personnel will put on protective clothing after leaving the sanitation station but prior to entering plant production areas. Personnel must remove greenhouse-specific protective clothing prior to entering the sanitation station. If lab coats are worn between greenhouses within a production area, then they should be covered with or exchanged for a clean apron upon entering the production area of each greenhouse.

3.3.4.2 Protective clothing must be stored to avoid contact with the floor. Clothing is to be maintained free of debris, potting media, soil, or plant material. Protective clothing should be washed in detergent weekly or replaced in the case of disposable aprons.

3.3.5 Personal Hygiene:

3.3.5.1 While in the greenhouse facility during production, personnel must regularly disinfect their hands and forearms or gloves by dipping or spraying with disinfectant after a definable production unit (e.g., every 200 cuttings) and between plant varieties and species.

3.3.6 Tools and Equipment:

3.3.6.1 Knives, scalpels, scissors, and other equipment that come into contact with plants must be routinely disinfected after a definable production unit (e.g., every 200 cuttings) and between plant varieties and species.

3.3.6.2 Carts and collection baskets are to be sprayed with disinfectant on all surfaces that are likely to come in contact with the plants or equipment used in processing the plant cuttings. The volume of disinfectant used to surface disinfect tools should be adequate to submerge entire blade or portions of tools that contact the plants.

3.3.7 Handling of Cuttings and Traceability:

3.3.7.1 The facility must demonstrate trace forward/trace back capability to a specified level (*i.e.,* row or bench) at the place of production (e.g., farm, greenhouse, growing zone). Upon harvest, cuttings will be placed directly into new plastic bags or into plastic containers that can be disinfected between each use. Waterproof labels must accompany each bag of cuttings; these labels will allow cuttings to be traced forward through rooting stations (if the cutting is sold as un-rooted or callused) to the first wholesale grower customer.

3.3.7.2 When transferring cuttings to grading facilities, bags or containers of cuttings may not come in contact with any material that could expose them to regulated pests.

3.3.8 Greenhouse Floors:

3.3.8.1 Greenhouse floors must be free of debris and weeds. Greenhouse personnel who are in the process of handling production stock plants should not retrieve plant parts (*e.g.,* cuttings, trimmings) that fall to the floor. Other workers (or same workers after harvesting of cuttings) should remove and dispose the debris daily.

3.3.8.2 Floors must be sanitized routinely, at a minimum before each new production cycles begins. Floors must drain properly to prevent long-standing puddles of water. Water in contact with flooring must never come in contact with surfaces upon which plants are grown (splashing, watering, etc.). Disinfecting hose ends that have been in contact with greenhouse floors or other potentially hazardous surfaces may be treated with surface disinfectants.

3.3.9 Growing Media and Plant Containers:

3.3.9.1 Plastic bags or pots may be used as stock plant containers. Plastic bags or pots may be new, disinfected with an APHIS-approved disinfectant (Appendix 3) or treated with an APHIS-approved method (see 3.3.17).

3.3.9.2 Stock plants must be grown in APHIS-approved media (see table 7-1 in Plants for Planting Manual) which has been sourced, stored, treated, and/or handled to prevent pest contamination.

3.3.9.3 Growing media intended for use in greenhouses must be stored in a manner that prevents contact with the ground, soil or turf surfaces. Growing media must be new or reused if treated by any of the following APHIS-approved methods:

1) Steam pasteurization:
   - Media must reach and uniformly hold a minimum temperature of 75º Celsius (167º Fahrenheit) for 30 minutes.
   - A minimum of eight sensors must be used.
   - All sensors must reach a minimum of 75ºC before the 30-minute treatment begins. If any sensor drops below the minimum temperature during treatment, repeat the entire 30-minute treatment when all sensors are maintaining a minimum of 75ºC.
   - Sensors must be placed a foot below the surface. At the bottom, sensors must be kept in four corners at 3-6 inches above the bottom
   - Sensors must be evenly spaced on left, right, and center.
   - Sensors must be tested and calibrated before use.
   - Records must be kept and available upon request
2) Fumigation:
   - If methyl bromide is used, the fumigation rate is 3 grams per liter of media for 72 hours at 21o Celsius (70o Fahrenheit) or above.
   - If Vapam 3% is used, the concentration must be 50 ml per 5-liter pot or bag, keep it covered for 72 hours.

3.3.10 Irrigation:

3.3.10.1 Water treatment may be required depending on the source, storage method, and irrigation system. Treatment is not required for potable municipal water or water collected from sealed deep wells, provided the water is used immediately or stored in tanks that cannot be contaminated by native soil or plant material/debris.

3.3.10.2 An APHIS-approved treatment is required if water from unsealed wells, rainwater collection systems, ponds, lakes, streams, or any other type of open body of water and recycled or recirculated water is used for irrigation. The irrigation water may be contaminated, thus a minimum of two independent water purification systems are required: one primary and a second serving as back up, to ensure that the crop does not become infected with pathogens due to potential failure of one of the water purification systems.

3.3.10.3 Any water purification system must consist of filtration of water through reed-bed systems and slow sand filters in combination with one of the following purification methods:

- Ozonation (0.4 ppm residual ozone for a minimum of 4 minutes)
- Ultraviolet irradiation: 300J/m2 of UV light at 254 nm with at least 50% light transmission.
- Peroxygen products: a minimum residual level of 4 mg per liter of peracetic acid for 2 minutes. This may be achieved by injection of irrigation water during pumping at 15-35 m^3 per hour) with a commercial formulation of 50-100 ml/m^3 of peracetic acid.
- Chlorine dioxide: Dosage of 0.1mg per liter of residual chlorine dioxide sustained for a two-minute minimum reaction time. This may be achieved by injecting irrigation water with 5 mg per liter using a chlorine dioxide generator.

3.3.10.4 Records must be maintained of any breaches that occur in any part of the irrigation system, including the date, exact location, and remedial measures taken, and tests performed to ensure that the irrigation system remains free of pathogens.

3.3.10.5 Plants must not be irrigated using ebb, overhead, and flow or flood irrigation systems as these methods may contribute to spread of regulated pests. Irrigation systems must be constructed so that emitters are not in contact with potting media and/or are equipped with backflow devices to prevent contamination of the watering system.

3.4 Pest and Pathogen Best Management Practices

3.4.1 Each facility must have a pest management plan that covers the aforementioned standards as well as the following elements:

3.4.1.1 Identification of a designated facility pest manager.

3.4.1.2 Periodic structure inspections to ensure compliance with minimum facility standards (*e.g.*, integrity of insect screening).

3.4.1.3 Description of the inspection for incoming plant material before the plant material enters the production area.

3.4.1.4 Pest monitoring and control program appropriate for crops being produced and to mitigate against the introduction of pathogen-carrying insects, mollusks, pathogens, and any other pest of concern.

3.4.1.5 Crop scouting, removal, and disposal of infested/infected plants. For known pests and pathogens, schedule scouting according to predicted emergence dates and or key life cycle events. Schedule scouting at intervals that are frequent enough to prevent or manage outbreaks. Indicate percentage of plants inspected per greenhouse.

3.4.1.6 Traceability mechanisms to facilitate targeting, port of entry clearance, and trace back/trace forward in the event of noncompliance.

3.4.1.7 Description of the shipping inspection for outgoing plant material.

3.4.1.8 Description of the procedures, documentation, and corrective actions if a non-regulated pest or a regulated pest is detected during the inspection of incoming plant material, during plant production, or in the shipping inspection, grading/packaging of cuttings. Include the procedure to identify and report pests.

3.4.1.9 Access to production facilities is limited to individuals certified to work in facilities and authorized visitors. Facilities must maintain lists of approved personnel.

3.4.1.10 Records of pest monitoring and management activities must be maintained and made available to APHIS upon request.

3.5 Training program for all personnel

3.5.1 The designated pest manager is responsible for managing and training all personnel in proper practices required to prevent regulated pests from entering the facility and from becoming established.

3.5.2 The training will include greenhouse and packinghouse practices and the fundamentals for preventing plant pest spread from plants outside the facility, as well as the required sanitary practices to prevent pest and disease transmission. This training should include information on spreading pests from plants commonly found in workers' yards or environs.

3.5.3 Personnel will be trained at least annually, more often if required.

3.5.4 Facilities must maintain records of training and personnel certifications for at least 3 years and provide to APHIS upon request.

4 GREENHOUSE CERTIFICATION PROCESS

4.1 COOPERATIVE SERVICE AGREEMENT AND TRUST FUND

4.1.1 Facilities interested in participating in the OGCP must contact their NPPO, to establish a cooperative service agreement with APHIS and coordinate the required facility audit and certification. APHIS will provide industry with a budget estimate for full reimbursement of costs associated with certification activities (*e.g.* auditor's salary, benefits, travel, etc.). Facilities will deposit funds for the visits into a trust fund established with APHIS prior to facility audit and certification activities.

4.2 ANNUAL CERTIFICATION

4.2.1 Certified APHIS auditors will perform a full system certification audit during the facility's peak plant production and harvesting season. The APHIS auditor will observe the harvesting process and evaluate the candidate facilities using the Certification Site Visit Checklist (Appendix 5). Only facilities that meet the minimum sanitation standards described in this framework will be certified as part of the program. The facility certification is valid for one year and the list of certified participating facilities will be published in the Plants for Planting Manual.

5 PORT OF ENTRY CLEARANCE PROCESS

5.1 PHYTOSANITARY CERTIFICATE

5.1.1 The phytosanitary certificate must follow the requirements stated in Chapter 2 of the Plants for Planting Manual and must include the certified facility number in the following additional declaration for all OGCP-eligible consignments:
All plant taxa in this consignment were produced and prepared for export from [*approved facility number]* in accordance with the Offshore Greenhouse Certification Program.

5.1.2 Please note that this additional declaration is <u>not</u> required for consignments that are not eligible for the OGCP (*e.g.*, OCGP plants commingled with non-OGCP plant taxa).

6 PROGRAM OVERSIGHT AND SUSPENSION

APHIS reserves the right to suspend the facility from the program (i.e., revert to 100% frequency of inspection) based on non-compliance or non-conformance failures.

6.1 NON-COMPLIANCE

6.1.1 Any quarantine[2] pest interception at a U.S. port of entry from <u>any</u> consignment originating from an OGCP-facility will result in the following immediate actions:

- APHIS will issue an Emergency Action Notification (EAN)
- Shipment will be destroyed, reexported or treated

[2] For a list of U.S. regulated plant pests please visit:
https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/rppl/rppl-table

- Facility will be automatically suspended from the program and the facility's consignments will undergo 100% frequency of inspection for next 5 shipments.
    - If no other quarantine pests are found in those 5 shipments, the facility may be reinstated, and the suspension removed by APHIS.
    - If another quarantine pest is found in those 5 shipments, the facility will continue to be suspended until issue is resolved.
- Before reinstatement, APHIS will communicate with NPPO and offshore facility to discuss and agree on mitigation actions to reduce the risk of future pest interceptions.

6.2 NON-CONFORMANCE

6.2.1 Offshore facilities that do not conform with the program's framework may not be certified/re-certified to participate in the program. Examples of non-conformance include, but are not limited to, not using the APHIS CORE message set, not including the certified facility number and/or producer name in all unrooted cuttings consignments and presence of non-quarantine pests.

6.2.2 In the event of two or more non-conformances in one calendar year, APHIS will communicate with the NPPO and the offshore facility to discuss corrective actions.

7 APPENDIX 1: GLOSSARY

Definitions for phytosanitary terms used may be found in ISPM 5, Glossary of Phytosanitary Terms (IPPC, 2015), in RSPM 5, NAPPO Glossary of Phytosanitary Terms (Revised) (NAPPO, 2012), RSPM 24, Integrated Pest Risk Management Measures for the Importation of Plants for Planting into NAPPO Member Countries (NAPPO, 2005) and ISO 9000:2015 Quality management systems-Fundamentals and vocabulary.

Additional Declaration: A statement that is required by an importing country to be entered on a phytosanitary certificate and which provides specific additional information on a consignment in relation to regulated pests or regulated articles.

APHIS: United States Department of Agriculture, Animal and Plant Health Inspection Service.

Audit: A systematic examination of the organizational structure, infrastructure, procedures, processes, records management, and resources used by the place of production in implementing the program.

Broker: An entity that purchases or takes possession of plants for planting from an approved place of production for the purpose of exporting those plants without further growing beyond maintaining the plants until export.

Certificate: A document (e.g., official correspondence) by which an APHIS's auditor affirms that a production site meets the OGCP requirements.

Commercial shipment: Goods that are imported for resale purposes or for profit (example cuttings to be grown in a nursery for resale as a whole plant); not for personal use.

Commingled: Consignments in which different commodities (or commodity types) have been mixed together within individual sampling units (e.g., boxes)

Commodity: A type of plant, plant product, or other article being moved for trade or other purpose.

Consignment (or Shipment): A quantity of plants, plant products or other articles being moved from one country to another and covered by a single phytosanitary certificate, when required (a consignment may be composed of one or more lots or taxa).

Country of origin: The country where the plants, or plants from the plant products were derived or grown, or where the non-plant articles were produced.

Eligible plant: A plant that meets the prerequisite phytosanitary and programmatic conditions to be entered into the OGCP.

Full Systems Audit: A systematic examination of the organizational structure, procedures, processes and resources used by the facility in implementing the OGCP.

Generally admissible: Plant taxa imported for planting that meet general restrictions and do not have any specific restrictions as listed in the USDA Plants for Planting Manual.

Greenhouse: The physical location where plants are grown within, under, or sheltered by structures to provide a modified growing condition and/or protection from pests and the outdoor

environment. These structures may include greenhouses, hoop houses, screen houses, shade houses, or other structures that are determined by the NPPO of the exporting country to meet the minimum operating requirements of OGCP.

Hybrid: When applied to kinds or varieties of seed, means the first-generation seed of a cross produced by controlling the pollination and by combining two or more inbred lines; one inbred or single cross with an open pollinated variety; or two selected clones, seed lines, varieties, or species. Controlling the pollination means to use a method of hybridization that will produce pure seed that is at least 75% hybrid seed. Hybrid designations shall be treated as variety names. As defined by CITES, a plant that is produced as a result of crossbreeding between two species.

NAPPRA: Not authorized pending pest risk analysis. A category of regulations governing the importation of plants for planting, commonly known as the Q37 regulations.

National Plant Protection Organization (NPPO): The official service established by a government to discharge the functions specified by the International Plant Protection Convention.

Non-compliance: Activities or products found to be contrary to, or in violation of, APHIS' import regulatory requirements.

Non-conformance: Activities or products found to be contrary to, or in violation of, the program requirements as described in this document.

Phytosanitary Certificate: A document including electronic versions, that is related to a restricted article not more than 15 days prior to shipment of the restricted article from the country in which it was grown and that: (1) Is patterned after the model certificate of the International Plant Protection Convention, a multilateral convention on plant protection under the authority of the Food and Agriculture Organization of the United Nations (FAO); (2) Is issued by an official of a foreign national plant protection organization in one of the five official languages of the FAO; (3) Is addressed to the national plant protection organization of the United States (Animal and Plant Health Inspection Service); (4) Describes the shipment; (5) Certifies the place of origin for all contents of the shipment; (6) Certifies that the shipment has been inspected and/or tested according to appropriate official procedures and is considered free from quarantine pests of the United States; (7) Contains any additional declarations required in the Plants for Planting Manual; and (8) Certifies that the shipment conforms with the phytosanitary requirements of the United States and is considered eligible for importation pursuant to the laws and regulations of the United States.

Place of Production (or Facility): Any premises or collection of fields operated as a single production or farming unit. Specific to this program, a place of production or facility is "a contiguous property that is used to produce vegetative cuttings of plants for planting."

Plant pest: Any living stage of any of the following that can directly or indirectly injure, cause damage to, or cause disease in any plant or plant product: A protozoan, a nonhuman animal, a parasitic plant, a bacterium, a fungus, a virus or viroid, an infectious agent or other pathogen, or any article similar to or allied with any of these articles.

Plant unit: The smallest unit in the inspection unit (e.g., cutting, plant, stem).

Plants for Planting: Plants intended to remain planted, to be planted or replanted.

Production site: A defined portion of a place of production utilized for the production of a commodity that is managed separately for phytosanitary purposes. This may include the entire place of production or portions of it. Examples of portions of places of production are a defined orchard, grove, field, greenhouse, screenhouse, or premises.

Quarantine pest: A plant pest or noxious weed that is of potential economic importance to the United States and not yet present in the United States, or present but not widely distributed and being officially controlled.

Suspension: A facility not allowed to ship material under the OGCP. An OGCP participating facility can be suspended if found in violation of any condition of the program, unable to implement corrective actions in a timely manner and maintain the required phytosanitary conditions of entry. The facility will be removed from the list of OGCP approved facilities.

Unrooted cuttings: a section of a plant that is removed and used for propagation. While roots are not present, callus tissue (a mass of large, thin-walled, undifferentiated cells that typically form as a precursor to rooting) may be present.

8 APPENDIX 2: APHIS-APPROVED PLANT TAXA LIST FOR THE OGCP

The list of APHIS-approved, generally admissible plant taxa that can be imported into the United States as part of the OGCP can be found on the program's website. Only vegetative, unrooted cuttings are eligible for the program. An unrooted cutting is defined as an excised section of a plant, without roots, that is used for propagation. Callus tissue (a mass of large, thin-walled, undifferentiated cells that typically form as a precursor to rooting) may be present. For stem cuttings, the stage of the cutting shall be herbaceous or softwood only.

The following are not eligible under the OGCP: 1) Tissue culture/in vitro plantlets; 2) Genetically engineered varieties; 3) Plants and country combination as indicated in Chapter 3 and 6 of the USDA Plants for Planting Manual, for planting with specific requirements in addition to requirements listed in the USDA Plants for Planting Manual, *Chapter 2: General Restrictions*; and 4) Hybrids and varieties without known parental information.

To request the addition of new plant taxa to the APHIS-approved list, you may contact APHIS at OGCP@usda.gov. Please note that the review process can take three to six months. It is recommended that new plant taxa be submitted for approval well in advance of the shipping season.

9 APPENDIX 3: LIST OF APPROVED DISINFECTANTS

Table 1: The following table provides an example list of APHIS-approved surface disinfectants[3]. Any product used for disinfection should be approved for use by the NPPO, labeled for use by the appropriate authority in the country where the facility is located, and must be efficacious against regulated pests.

Trade Name	EPA Reg. No.	Active Ingredients	Use Sites
ANTHIUM DIOXCIDE 5% AQUEOUS STABILIZED CHLORINE DIOXIDE	9150-2	Chlorine dioxide	Boot wash/shoe wash
BIO-FRESH CD	9804-3-65516	Chlorine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
COIL & DUCT SPRAY	9804-3-46463	Chlorine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
ECOTREAT	9804-3-7909	Chlorine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
ENVIROCON	9804-3	Chlorine dioxide	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)

[3] Disclaimer: Mention of companies or commercial products does not imply recommendation or endorsement by the U.S. Department of Agriculture over others not mentioned. USDA neither guarantees nor warrants the standard of any product mentioned. Product names are mentioned solely to report factually on available data and to provide specific information.

Trade Name	EPA Reg. No.	Active Ingredients	Use Sites
TOTALINE COIL & DUCT SPRAY	9804-3-40536	Chlorine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
ProKure V	87508-3-89334	Sodium chlorite	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
Virkon	39967-137	Potassium peroxy-monosulfate and sodium chloride	Greenhouse equipment, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops), vehicles
Zero Tol	70299-1	Hydrogen dioxide	Greenhouse structures, benches, pots, watering systems, evaporative coolers, storage rooms, ventilation equipment, floors and other equipment
AFCO 4330	4959-16-833	Iodine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
BIOSENTRY IODINE DISINFECTANT	65020-4	Nonylphenoxypolyethoxyethanol	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
CSAN 2339 IDOPHOR SANITIZER	4959-16-67829	Iodine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
OAKITE TRISANITE	4959-16-1020	Iodine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)

Trade Name	EPA Reg. No.	Active Ingredients	Use Sites
SANI DINE	4959-15-64328	Iodine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops) shoe/boot wash
WESCODYNE	4959-16-1043	Iodine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
WEST AGRO ZZZ DISINFECTANT	4959-16	Iodine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
ZEP-I-DINE	4959-16-1270	Iodine	Greenhouses, hard nonporous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
Lonza Formulation S-18	6836-77	Quat. Ammonium	Farm, Poultry, Swine, and Mushroom Premise Sanitation Veterinary Practice/Animal Care/Animal Laboratory Disinfection
MAQUAT 128-MT	10324-112	Quat. Ammonium	Outer clothing, field harvesting equipment, walls/floors of coolers, flower buckets, and greenhouse packing areas
MAQUAT 615-HD	10324-72	Quat. Ammonium	Greenhouses, hard non porous surfaces (flower buckets, floors, walls, coolers, benches and counter tops)
MAQUAT 64 MN	10324-113	Quat. ammonium	Florist shops, wholesale florist, shippers, greenhouse packing areas, flower buckets, floors/walls of coolers, benches, and counter tops)

Trade Name	EPA Reg. No.	Active Ingredients	Use Sites
Physan 20	55364-5	Quat. Ammonium	Greenhouses, hard surfaces, lawn and turf grass, seedlings, cut flowers, decorative fountains, pools, birdbaths, and plants
Menno-Florades	Not EPA-approved. Must be approved by the NPPO.	Benzoic Acid	Greenhouses, harvesting equipment

Trade Name	EPA Reg. No.	Active Ingredients	Use Sites
ProKure G	87508-2-89334	Sodium chlorite	Mold and mildew odor remover

Table 2. List of (a) active ingredients for skin disinfectants (CDC recommendations) and (b) examples of specific products labeled for use on skin or clothing in the United States. Any product used for disinfection should be approved for use by the NPPO, labeled for use by the appropriate authority in the country where the facility is located, and must be efficacious against plant pathogens.

a) Skin disinfectant

Active Ingredient(s)
Alcohols (>60% ethanol)
Chlorhexidine (0.5%-4% depending on preparation)
Chloroxylenol (0.3%-3.75%)
Iodine and Iodophors (7.5%-10% povidone-iodine)
Quaternary Ammonium Compounds

b) Examples of specific products useful for disinfection of skin and clothing* used

Product	Company
*GX-1027 Antimicrobial Soap	Galloway Chemical
Hibiclens; Hibistat	AstraZeneca
*Canker Guard	Flo Tech. Inc.
*Csan 154 QT Soap	Bell Chem Corporation
EcoCare 250, EcoCare 260, EcoCare 350, *EcoCare 360	Ecolab
AgriCure; Pure & Clean Antibacterial Handwash with Germsafe	International Laboratory Technology Corp.
FS Antimicrobial Hand Cleaner; FS E-2 Sanitizing Hand Soap; Acclaim Antibacterial Liquid Hand Soap	ZEP Manufacturing Co.
*C-Soap	Genesis Technologies

10 APPENDIX 4: EXAMPLE OF CHECKLIST FOR CERTIFICATION AUDIT- OFFSHORE GREENHOUSE CERTIFICATION PROGRAM

1. FACILITY INFORMATION			
Facility Name		Date of Inspection	
Country			
Name & Address of Company (as shown on Phytosanitary Certificate used for CBP Consignment Clearance)			
New or renewing certification?			
Finance Officer Email (at parent company headquarters)			
Physical Address of Inspected Site			
GPS Coordinates of Inspected Site			
Certified Facility Number			
Facility Manager	Name:		
Email:		Phone:	
Trust Fund Manager	Name:		
Email:		Phone:	
Total Facility Area [1]		OGCP-Eligible Area	
Total No. of Greenhouses		OGCP-Eligible No. of Greenhouses	
Total No. of Plants at Facility		OGCP-Eligible No. Plants at Facility [2]	

Total No. of employees (peak season)		Greenhouses audited today	
		Greenhouses audited during last inspection	
[1] Attach map with total number of employees and layout of facility/greenhouses, [2]Attach list of OGCP-approved plant taxa at the facility			
U.S. Importer(s)			
U.S. Broker(s)			
Exporting cuttings to the following countries:			
Dates of shipping season			
Dates of Peak season			
What day(s) does the facility harvest cuttings for shipment?			
SUN MON TUE WED THU FRI SAT			
What day(s) of operation does the facility ship material?			
SUN MON TUE WED THU FRI SAT			
Where does the facility source their nuclear stock? (*Provide facility name and physical address*)			
Primary means of shipment	Land Air Sea		
2. PLACE OF PRODUCTION INFRASTRUCTURE			
Entry to the main facility is secure and excludes any external source of plant pathogen or contaminant from entering the facility.			

Trucks entering the facility have tires cleaned and disinfected before entry into the production area or are excluded from the production area.			
All plants are located within an enclosed greenhouse during all stages of growth.			
There is complete separation between increase (G2 or G3) and production (G4) blocks			
Employees work exclusively in production block greenhouses or increase block greenhouses during a single workday.			
3. GREENHOUSE BUFFER ZONE			
Sanitation	Buffer zone free of weeds, grass, and dicotyledonous plants.		
Size	There is at least a one-meter buffer zone around the entire greenhouse.		
Slope	Buffer has slopes or canals that prevents waters from entering the greenhouse.		
Composition	Gravel Crushed Rock Concrete Weed Cloth		
	Other:		
4. GREENHOUSE AND GRADING AREA INFRASTRUCTURE			
Material	**Top**	Glass Polycarbonate Polyethylene	
		Other:	
	Sides	Glass Polycarbonate Polyethylene Screen (1.2 mm X 1.2 mm or less)	
		Other:	
	Describe condition (*optional*)		

	All vents and openings in greenhouse are covered with screening to prevent the entry of quarantine pests.	
5. ENTRY AND SANITATION STATION		
Entry	Single entrance into the greenhouse.	
	Direct access to vestibule prior to entering plant production area.	
	Vestibule area with closing double-doors.	
	Entry to production area restricted to authorized personnel.	
	Personal items stored before entry to greenhouse.	
Footbath	There is a footbath with rough bottom surface prior to entering the greenhouse.	
	Disinfectant:	
	Volume covers soles and lower portions of footwear.	
	Disinfectant is changed at least twice daily.	
	If no, explain:	
	Time and date of disinfectant change is recorded/logged	
Wash/ Disinfection Stations	There is a sink or disinfection station for handwashing prior to entering the production area.	
	Disinfectant:	
	Sink drains immediately to outside of production area.	
	Water source for sink: Sealed Well Municipal Other:	
	Treatment:	
	Workers wear latex or vinyl gloves.	

Dressing Area	There is a protective clothing dressing area outside the production area.		
	Protective clothing stored to prevent contact with the floor.		
Protective Clothing	Protective clothing worn by all personnel on entry to production area.		
	Types	Washable lab coats Washable or disposable aprons Washable or disposable aprons over lab coats	
	Other:		
	Protective clothing dedicated to each greenhouse and removed before exiting.		
	If lab coats are worn between greenhouses, are they covered with or exchanged for an apron at each greenhouse?		
	If no, explain:		
	Clothing is maintained free of debris, potting media, soil, or plant material.		
	Protective clothing washed in detergent weekly or replaced in the case of disposable aprons.		
	Other:		
6. GREENHOUSE PRODUCTION AREA			
Floors and Walkways	Floors	Gravel Crushed stone Concrete Other:	
	Walkways	Gravel Crushed stone Concrete Other:	
	Is native soil present on floors or walkways?		
	If yes, describe:		

	Debris-free		Weed-free		Free of standing water (*puddles*)	
	If no, describe:					
	Floors and walkways are swept daily.					
	Describe:					
	If floors and walkways are swept daily, is debris removed after or during harvesting or pruning?					
	Floors and walkways sanitized at least annually.		How Often?			
	Disinfectant:					
Production Surfaces	Plants elevated at least 46cm above greenhouse floor.		How high?			
	Water from the floor come in contact (*e.g.* splashing, watering) with plants or benches.					
	All hard surfaces (*e.g.* floors and benches) were sanitized prior to use.					
	Disinfectant:					
	Production surface design and composition ensures drainage.					
	Irrigation water does not make pot to pot contact.					
Irrigation System	Ebb and flow irrigation system present.					
	Evidence of flood or sub-irrigation system.					
	Emitters are separate from media in pots.					
	Emitters equipped with backflow devices or raised above media.					
	Hose ends (last 1.2 meters) and irrigation nozzles are off greenhouse floor or production surface.					

	If contact is made, hose and watering equipment treated with surface disinfectant.	
	Disinfectant:	
Personal Hygiene	Are hands or gloves and forearms disinfected by dipping or spraying with approved disinfectant?	
	Disinfectant:	
	Hands or gloves are disinfected after a definable production unit?	
	Production Unit:	
	Food excluded from greenhouse.	
Tools and Equipment	Carts and collection baskets sprayed with disinfectant.	
	Disinfectant:	
	Tools for harvesting (*e.g.* knives) soaked in disinfectant prior to use	
	Tools for harvesting (*e.g.* knives) soaked in disinfectant after a definable production unit:	
	Production Unit:	
	Tools for harvesting (*e.g.* knives) rotated between each stock plant or stock plant container.	
	If No, answer questions below:	
	Are tools permanently assigned to a specific bench and appropriately rotated and disinfected between plants on that bench?	
	Are tools appropriately rotated and disinfected between plants in a definable production unit?	

	Production Unit:					
	What is the total number of knives in a bucket used for harvesting?					
	Disinfectant volume adequate to submerge entire blade and portions of tools that contact plants.					
Bags/ Containers	Only new or disinfected plastic bags or containers are used for collection of harvested cuttings.					
	Disinfectant:					
Cuttings	Cuttings placed in plastic bags labeled with non-water-soluble ink.					
	Labels accompany each bag of cuttings.					
	Label system allows trace forward through rooting stations or directly from farm to first wholesale customer.					
	Transfer to grading facilities or cold room are such that cuttings or containers do not contact soil or other material harboring pathogens.					
Grading	Grading is done during harvest.					
	If No, is Grading done in a separate room?					
	If YES, grading facilities satisfy same conditions as greenhouses with respect to:					
	Wash Stations		Hand Washing		Footbath	
	Protective Clothing		Personal Hygiene		Tools	
	Handling of Cuttings		Floors		Productions Surfaces	
	Water Treatment		Training Personnel			
	Table/counter surfaces surface disinfested between bags or baskets of cuttings processed.					
7. GROWING MEDIA						

Type	APHIS-approved growing medium (*e.g*. Scoria, Volcanic rock, potting mix):			
	Describe:			
	If no, describe:			
Safeguarding	Media and pots are stored on soil/dirt or turf surfaces.			
Treatment	Media is sterilized or pasteurized.			
	Method (Check one)			
		Steam pasteurization (30 min after all sensors reach at least 75˚C)		
		Fumigation: Methyl Bromide (3g/liter for 72h @ ≥70˚F)		
		Fumigation: Vapam 3% (equivalent to 50 ml per bag covered for 72 hours)		
	Media is fumigated on a non-porous surface.			
Containers	Select One:	Plastic pots	Plastic bags	
	Are pots/bags new each year?			
	FOR POTS ONLY- If no, describe below:			
8. WATER TREATMENT				
Source	Municipal		Deep, Sealed Well	
	*Other:			
	*If “other”, describe and indicate treatment:			

	Stored water is safeguarded for contaminates such as native soil and plant material/debris.	
	Reed-bed filtration systems and slow sand filters in combination with one of the following:	
		Ozonation (0.4 ppm residual ozone for ≥4 minutes)
		Ultraviolet irradiation (300J/m2 UV @ 254 nm, ≥ 50% transmission)
		Peroxygen products (residual level ≥ 4mg / liter per acetic acid for 2 min)
		Chlorine dioxide (residual level ≥ 0.1 mg / liter chlorine dioxide for ≥ 2 min)
	Independent backup water treatment system in place in case primary system fails.	
	Is there a log of any breaches in irrigation system kept on site?	
	Detailed description of water treatment (use additional pages if necessary):	
9. PEST SURVEY AND DETECTION		
Pest/	List of pests/pathogens of concern specifically targeted for monitoring by testing and/or visual inspection in the facility pest management plan:	

Pathogen of concern (if applicable)				
	Pest Management Plan available and with the required information as described in 3.4. (Attach copy of pest management plant)			
	Water testing for pathogens of concern			
Diagnostics (if applicable)	What testing methods, if any, are used (*e.g.* ELISA, PCR, microscopy):			
	Describe:			
	Tests conducted at approved/certified:			
	In-house laboratory		NPPO laboratory	
	Third party laboratory		Other:	
	Tests conducted by, or under the supervision of, the plant protection organization of the country of origin or their designee.			
	Records available for inspection.			
	If propagating from Production block:			
	Plants subjected to same clean-up process as nuclear stock?			
	Describe:			
	Plants subjected to same testing process as nuclear stock?			
	Describe:			

Sampling	What is the sampling rate of Production block (G4)?	
	Describe:	
	Sampling done prior to first shipment and throughout shipping season.	
	Plants scouted regularly for signs of pests and tested as necessary.	
	Test performed prior to destruction of discarded plants (except when all plants destroyed at end of season).	
10. Packinghouse and Cold Room Infrastructure		
Packing area is cleaned and disinfected before use.		
Packing and loading takes place inside an enclosed structure during the day.		
Physical barriers (e.g., double door system, air curtains etc.) are installed to prevent entry of insects to packing area.		
OGCP plant material destined for the United States is segregated from plant material destined for other markets		
All packing and shipping containers are free of soil, dirt, weeds, and pest		
Packing material meet the "Packing and Approved Packing Material" import requirements in the Plants for Planting Manual.		
11. TRAINING		
Employee Training	Number of Employees during peak season.	
	There is a training program covering proper greenhouse procedures.	
	Description of training:	

	How often is training provided? (select all that apply)	
	Annual Monthly Quarterly Weekly Bi-weekly	
	Describe:	
	A list of trained personnel is maintained.	
	List the last date of training conducted.	
	Access to greenhouses is limited to trained and certified individuals.	
	Facility maintains record of training of personnel and certifications.	

I have reviewed and agreed with the above and will immediately resolve outstanding issues detected:

APHIS Inspector:	Signature:	Email:	Date:
NPPO Inspector:	Signature:	Email:	Date:
Production Manager:	Signature:	Email:	Date:

11 APPENDIX 5: EXAMPLE OF CORRECTIVE ACTION REQUEST (CAR) FORM

CAR Number: _____

Program	Facility Name
Audit Type	Facility Code/Number
Audit Date	Address
	Country
Auditor	Facility Representative
Name	Name
Phone	Phone
Email	Email

Step 1: DESCRIPTION of NON-CONFORMANCE AND OBSERVATIONS

Non-Conformance Type:	□ critical	□ major	□ minor
Description:			
Reference to Operational Work Plan/Framework:			
Date of CAR:			
APHIS Signature:			Date
Facility Representative Signature:			Date

STEP 2: DESCRIPTION OF CORRECTIVE ACTION

*Please submit proposal for corrective action within **7 days** of this form.*

Immediate Corrective Action Description
Proposed Completion Date
Long-Term Corrective Action Description

Proposed Completion Date:
Facility Representative Signature:
Date Submitted:
APHIS Signature:
Date Received:

STEP 3: VERIFICATION OF CORRECTIVE ACTION

Note: The facility will not be certified/approved until <u>all</u> corrective actions are closed.

Immediate Corrective Action			
Corrective Action Documentation	□ Acceptable	□ Not Acceptable	□ N/A
Corrective Action is Acceptable	□ Yes	□ No	
Follow-up Visit Required	□ Yes	□ No	
Comments			
Long-Term Corrective Action			
Corrective Action Documentation	□ Acceptable	□ Not Acceptable	□ N/A
Corrective Action is Acceptable	□ Yes	□ No	
Follow-up Visit Required	□ Yes	□ No	
Comments			

CAR Closed	□ Yes	□ No
APHIS Signature:		
Date Closed:		