



United States Department of Agriculture  
Animal and Plant Health Inspection Service  
Plant Protection and Quarantine



## **Risk Management Document**

# **Importation of Fresh Eggplant (*Solanum melongena* L.) from Israel into the Continental United States**

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**Plant Health Programs (PHP)**

**Commodity Imports Analysis and Operations (CIAO)**

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## Introduction

The Animal and Plant Health Inspection Service (APHIS) of the United States Department of Agriculture (USDA) conducted a pest risk assessment (PRA) in response to a request by the Israel Ministry of Agriculture and Rural Development, Plant Protection and Inspection Services (DPPI) for authorization to export fresh eggplant to the continental United States (USDA, 2007). Eggplant are currently authorized entry from numerous countries including Chile, Costa Rica, and New Zealand by 7 CFR 319.56. This is the first authorization that requires production in a pest exclusionary structure.

The pest risk assessment document “Evidence-based, Pathway-Initiated Risk Assessment of the Importation of Fresh Greenhouse-Produced Eggplant, *Solanum melongena*, from Israel into the Continental United States” identified **Six** pests of **high** quarantine significance which could reasonably be expected to follow the pathway of fresh eggplant imported into the continental United States from Israel. These include one fruit fly, one mite, one mealybug, one thrip, and two moths, as follows:

*Ceratitis capitata* Wiedemann (Diptera: Tephritidae) Mediterranean fruit fly

*Eutetranychus orientalis* Klein (Acari: Tetranychidae) Citrus brown mite

*Helicoverpa armigera* (Hübner) (Lepidoptera: Noctuidae) Cotton bollworm

*Nipaecoccus viridis* (Newstead) (Hemiptera: Pseudococcidae) Spherical mealybug

*Scirtothrips dorsalis* Hood (Thysanoptera: Thripidae) Chilli thrips

*Spodoptera littoralis* (Boisduval) (Lepidoptera: Noctuidae) Cotton leafworm

### Risk Management measures:

APHIS proposes that only commercial consignments of healthy fresh eggplants, *Solanum melongena*, from Israel be imported into the continental United States under the following conditions:

Eggplants must be grown in approved production sites in the Arava Valley by growers registered with DPPI. Initial approval of the production sites will be completed jointly by PPIS and APHIS. The production sites will be inspected on a monthly basis by DPPI or its approved designee, starting two months before harvest and continuing through the end of the shipping season. APHIS can monitor the production sites anytime from two months before harvest and continuing through to the end of the harvest.

Eggplant production sites must consist of a pest exclusionary structure, which must have self-closing double doors, and all openings, including vents, should be covered by screening with a mesh opening of (1.6mm) or less. Studies show that plastic screens with UV-absorbency in the UV-A or UV-B range (‘Bio-Nets’) are superior to conventional nets of the same mesh size. The pest exclusionary structures will prevent the introduction

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of the fruit fly of concern *Ceratitis capitata*) as well as the mite (*Eutetranychus orientalis*), the moths (*Helicoverpa armigera* and *Spodoptera littoralis*), and the mealy bug (*Nipaecoccus viridis*).

A finding of any quarantine pests inside the pest exclusionary structure, will result in immediate cancellation of exports from that production site until APHIS and DPPI determine that risk mitigation is achieved. Houses shall be examined periodically by DPPI or APHIS personnel for tears either in plastic or screening.

Inside the pest exclusionary structures: McPhail traps, with an approved protein bait, must be placed inside the screen houses with a density of 4 traps/ha, with a minimum of at least 2 traps/screen house. The traps must be serviced on a weekly basis. Export from a screen house will be immediately suspended following the capture of a single Medfly, and exports will not be reinstated until the source of the infestation is delimited, trap density is increased, pesticide sprays are applied, or other measures acceptable to APHIS are taken to prevent further occurrences.

### Outside of the Production Site:

There may be no shade trees within 10 meters of the entry door of the pest exclusionary structure or packing house, and no fruit fly material is permitted within 50 meters of the entry of the door of the pest exclusionary structure or packing house. A 3 to 10 meter vegetation-free zone around the outside perimeter of the pest exclusionary structure is recommended but not required.

A treatment jointly approved by DPPI and APHIS shall be applied in the areas of Arava Valley, where host material occurs in backyards, to reduce the Mediterranean fruit fly population and to continue in these areas through the eggplant harvest. Trapping for Mediterranean fruit fly (*Ceratitis capitata*, Medfly) shall be conducted by DPPI throughout the year in the agricultural region along Arava Highway 90 and in the residential area of Paran.

The eggplants must be packed within 24 hours of harvest in a pest-exclusionary packing house. The eggplants must be safeguarded by a pest-proof screen or plastic tarpaulin while in transit to the packing house and while awaiting packing. While packing fruit for export to the United States, the packing house may only accept fruit from registered approved production sites. Packinghouse procedures must include visual culling of damaged, overripe, or infested eggplant fruits.

Prior to the movement from approved insect-proof packing houses in the Arava Valley, the eggplants must be packed in either individual insect-proof cartons or in non-insect-proof cartons that are covered by insect-proof mesh or plastic tarpaulins; covered non-insect-proof cartons must be placed in shipping containers that have identification labels indicating the specific place of origin.

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The safeguards required must remain intact at all times during the movement of the eggplants to the continental United States and must be intact up to arrival of the eggplants in the continental United States.

The requirement for a Phytosanitary certificate with Additional Declarations provides phytosanitary security by requiring Israel officials to conduct phytosanitary inspections for these six pests. This effectively doubles the inspections the fruit receives. Furthermore, specifically listing the pests on the Additional Declaration alerts U.S. inspectors to the specific pest of concern. Each commercial consignment of eggplants must be accompanied by a Phytosanitary Certificate (PC) issued by the Israeli National Plant Protection Organization (DPPI), bearing the declaration, "These eggplants were grown in an approved production site and the shipment has been inspected and found free of the pests listed in the requirements." The shipping box must be labeled with the identity of the production site.

General requirements applicable to the importation of all fruits and vegetables are listed in 7 CFR 319.56-3. These requirements also would apply to eggplants from Israel imported into the continental United States.

### **Summary:**

The PRA for fresh eggplants from Israel addressed the risk associated with the commodity being imported into the Continental United States. The requirement for production in a pest-exclusionary structure diminishes the likelihood of quarantine pests to follow the pathway. Therefore, the importation of eggplant from Israel would be restricted to commercial consignments only.

The requirement of a phytosanitary certificate from the Israeli National Plant Protection Organization (DPPI) would document that the import is a product of Israel. A phytosanitary certificate also provides phytosanitary security by requiring DPPI to conduct inspections for pests in the consignment. Therefore, APHIS will require each consignment to be accompanied by a phytosanitary certificate with an additional declaration verifying that the consignment has been inspected and found free of the pests of concern.

These inspections double the number of inspections each eggplant receives by requiring phytosanitary inspections in addition to the normal packinghouse quality inspections. Importations of eggplant from Israel would also be subject to inspection at the port of entry into the United States.

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