USDA Animal and Plant Health Inspection Service
U.S. DEPARTMENT OF AGRICULTURE

Importation of Oriental melon (*Cucumis melo*) from the Republic of Korea into the United States for consumption

A Qualitative, Pathway Initiated Pest Risk Assessment

Version 1

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Executive Summary

The purpose of this report is to assess the pest risks associated with importing commercially produced fresh fruit of Oriental melon, *Cucumis melo* (Cucurbitae), from the Republic of Korea into the United States for consumption.

Based on the internal request submitted by Plant Protection and Quarantine (PPQ), we considered the pathway to include the fresh fruit, with a stem of one inch or less in length, of *Cucumis melo* (Oriental melon) for consumption. The fruit will be free of soil and debris and fruit that is damaged or obviously infested will be culled. The pest risk ratings depend on the application of all conditions of the pathway as described in this document; fresh Oriental melon fruit produced under different conditions were not evaluated and may pose a different pest risk.

We used scientific literature, port-of-entry pest interception data, and information from the government of the Republic of Korea to develop a list of pests with quarantine significance for the United States. These are pests that occur in the Republic of Korea on any host and are associated with the commodity plant species anywhere in the world.

The following organisms are candidates for pest risk management because they have met the threshold for unacceptable consequences of introduction and can follow the commodity import pathway.

Pest type	**Taxonomy**	**Scientific name**	**Likelihood of Introduction**
Insect	Diptera: Tephritidae	*Bactrocera depressa* (Shiraki)	Medium
Virus	Martellivirales: Virgaviridae	*Tobamovirus kyuri* (Kyuri green mottle mosaic virus)	Low
Virus	Martellivirales: Virgaviridae	*Tobamovirus viridimaculae* (Cucumber green mottle mosaic virus)	Low

The detailed examination and choice of appropriate phytosanitary measures to mitigate pest risk are addressed in a separate document.

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1. Introduction

1.1. Background

The purpose of this report is to present PPQ's assessment of the pest risk associated with the importation of commercially produced fresh fruit of Oriental melon (*Cucumis melo* L.) from the Republic of Korea (referred to as the export area) into the United States[1] (referred to as the pest risk analysis or PRA area) for consumption.

This is a qualitative risk assessment. The likelihood of pest introduction is expressed as a qualitative rating rather than using numerical terms. This methodology is consistent with guidelines provided by the International Plant Protection Convention (IPPC) in the International Standard for Phytosanitary Measures (ISPM) No. 11, "Pest Risk Analysis for Quarantine Pests" (IPPC, 2021). The use of biological and phytosanitary terms is consistent with ISPM No. 5, "Glossary of Phytosanitary Terms" (IPPC, 2024).

As defined in ISPM No. 11, this document comprises Stage 1 (Initiation) and Stage 2 (Risk Assessment) of risk analysis. Stage 3 (Risk Management) will be covered in a separate document.

1.2. Initiating event

The importation of fruits and vegetables for consumption into the United States is regulated under Title 7 of the Code of Federal Regulations, Part 319.56 Subpart L – Fruits and Vegetables (7 CFR §319.56, 2025) and as described in the Agricultural Commodity Import Requirements. Under this regulation, the entry of cucumber from the Republic of Korea into the PRA area is only authorized from December 1 to April 30, and is not authorized at other times of the year (ACIR, 2025). This commodity risk assessment was initiated in response to a request by the Republic of Korea to change the federal regulation to allow entry year-round.

1.3. Potential weediness of the commodity

In some cases, an imported commodity could become invasive in the PRA area. If warranted, we analyze the commodity for weed risk.

A weed risk analysis is not required when (a) the commodity is already enterable into the PRA area from other countries, (b) the commodity plant species is widely cultivated in the PRA area, or (c) the imported plant part(s) cannot easily propagate on its own or be propagated. We determined that the weed risk of melon does not need to be analyzed because it is already enterable into the PRA area from other countries (ACIR, 2025) and melon is widely cultivated in the United States (NASS, 2019).

1.4. Description of the pathway

A pathway is "any means that allows the entry or spread of a pest" (IPPC, 2024). In the context of this document, the pathway is the commodity to be imported. The following description includes those conditions and processes the commodity undergoes from production through

[1]The *United States* includes all states, the District of Columbia, Guam, the Northern Mariana Islands, Puerto Rico, the U.S. Virgin Islands, and any other territory or possession of the United States.

importation and distribution that may have an impact on pest risk and therefore were considered in our assessment. Commodities produced under different conditions were not considered.

1.4.1. Description of the commodity
The specific pathway of concern is the importation of fresh fruit of *Cucumis melo* (Oriental melon), with a stem of one inch or less in length, for consumption.

1.4.2. Summary of the production, harvest, post-harvest, shipping, and storage conditions considered
The fruit will be imported year-round for consumption. The fruit may have a short stem of one inch or less and will be free of soil and debris. Fruit that is damaged or obviously infested will be culled. No other production, harvest, post-harvest, shipping, or storage conditions were considered.

2. Pest List and Pest Categorization

The pest list is a compilation of plant pests of quarantine significance to the United States. This list includes pests that are present in the Republic of Korea on any host and are known to be associated with *Cucumis melo* anywhere in the world. Pests are considered quarantine significant if they (a) are not present in the PRA area, (b) are actionable at U.S. ports of entry, (c) are regulated non-quarantine pests, (d) are under federal official control, or (e) require evaluation for regulatory action. Consistent with ISPM No. 5, pests that meet any of these definitions are considered “quarantine pests” and are candidates for analysis. Species with a reasonable likelihood of following the pathway into the PRA area are analyzed to determine their pest risk potential.

2.1. Pest list

We developed the pest list based on scientific literature, port-of-entry pest interception data, and information provided by the government of the Republic of Korea. We listed the pests that are of quarantine significance to the PRA area in Table 1. For each pest, we provided evidence for the pest’s presence in the Republic of Korea and its association with *Cucumis melo*. We indicated the plant parts with which the pest is generally associated and, if applicable, provided information about the pest’s distribution in the United States. Pests that are likely to remain associated with the harvested commodity in a viable form are indicated by bolded text and are listed separately in Table 2.

Table 1. List of quarantine pests associated with *Cucumis melo* anywhere in the world and present in the Republic of Korea on any host

Pest name	Presence in the Republic of Korea	Host association	Plant part(s) [2]	Considered further?[3]
COLLEMBOLA: Symphypleona: Sminthuridae *Sminthurus viridis* (Linnaeus)	Yosii and Lee, 1963	Umeya and Okada, 2003	Sprouts (Umeya and Okada, 2003)	No. Present in Alaska (CABI, 2025).
INSECT: Coleoptera: Chrysomelidae *Aulacophora indica* (Gmelin)	Lee et al., 2005	Wang et al., 2020	Flowers (Wang et al., 2020), fruit (Umeya and Okada, 2003), leaves, roots (Umeya and Okada, 2003; Wang et al., 2020)	No, adults feed mainly on leaves, and superficially on fruit, reducing its commercial value (Umeya and Okada, 2003). Larvae feed on the roots, and fruit places touching the soil (Umeya and Okada, 2003). Infested fruit will be culled due to visible damage. Present in Guam (UGIC, 2023), the Northern Mariana Islands, and American Samoa (CABI, 2025).
INSECT: Coleoptera: Coccinellidae *Henosepilachna vigintioctopunctata* (Fabricius); syn. *Epilachna vigintioctopunctata* Auctt.	Lee et al., 2025; Lim et al., 2023	Pareek and Kavadia, 1991	Flower, leaves (Pareek and Kavadia, 1991)	No, both larvae and adults skeletonize the leaves, and feed on flowers (Pareek and Kavadia, 1991). The genus *Epilachna* is quarantine for the continental United States, Hawaii, and Puerto Rico (ARM, 2025).

[2] The plant part(s) listed are those for the plant species under analysis. If the information has been extrapolated, such as from plant part association on other plant species, we note that.

[3] "Yes" indicates simply that the pest has a reasonable likelihood of being associated with the harvested commodity; the level of pest prevalence on the harvested commodity (low, medium, or high) is qualitatively assessed as part of the Likelihood of Introduction assessment (section 3).

Pest name	**Presence in the Republic of Korea**	**Host association**	**Plant part(s)** [2]	**Considered further?**[3]
INSECT: Diptera: Agromyzidae *Liriomyza bryoniae* Kaltenbach	Ku et al., 1998	Spencer, 1973; Umeya and Okada, 2003	Leaves (based on general feeding behavior) (Spencer, 1973; Umeya and Okada, 2003)	No, larvae are leaf miners (Spencer, 1973; Umeya and Okada, 2003).
INSECT: Diptera: Agromyzidae *Liriomyza huidobrensis* (Blanchard)	Maharjan et al., 2014	de Goffau, 1991	Leaves (Al-Ghabeish and Allawi, 2001)	No, larvae are leaf miners (de Goffau, 1991). Present in Hawaii (Scheffer, 2000) and Guam (CABI, 2025).
INSECT: Diptera: Agromyzidae *Phytomyza horticola* Goureau; syn. Chromatomyia horticola (Goureau)	Ku et al., 1998	Bhalla and Narang, 1993	Leaves (Bhalla and Narang, 1993)	No, larvae are leaf miners. The genus *Phytomyza* is quarantine for the continental United States, Hawaii, and Puerto Rico (ARM, 2025).
INSECT: Diptera: Tephritidae *Bactrocera depressa* (Shiraki); syn. *Zeugodacus depressus* Shiraki	**Han et al., 2017; Mun et al., 2000**	**Han et al., 1994**	**Fruit (Han et al., 1994)**	**Yes, this fruit fly feeds internally in fruit (Han et al., 2017; Okadome, 1962).**
INSECT: Lepidoptera: Crambidae *Diaphania indica* (Saunders); syn. *Margaronia indica* (Saunders), *Palpita indica* (Saunders)	Clavijo Albertos, 1990; Moon et al., 2008	Clavijo Albertos, 1990; Umeya and Okada, 2003)	Fruit, leaves (Bourdouxhe, 1983)	No, larvae feed on the surface of melon fruit, where the fruit contacts the leaves or soil (Bourdouxhe, 1983). Damaged fruit would be culled during harvest or post-harvest processing. Non-quarantine for the continental United States and Puerto Rico; quarantine for Hawaii (ARM, 2025). Present in the United States in Florida, American Samoa, the Northern Mariana Islands (CABI, 2025) Guam (Schreiner, 1991).

Pest name	Presence in the Republic of Korea	Host association	Plant part(s) [2]	Considered further?[3]
INSECT: Lepidoptera: Erebidae *Eudocima phalonia* (Linnaeus); syn. *Eudocima fullonia* (Clerck), *Ophideres fullonica* Linnaeus, *Othreis fullonia* Clerck	Yoon and Lee, 1974 (as the synonym *Ophideres fullonica*)	Waterhouse and Norris, 1987	Fruit, leaves (Waterhouse and Norris, 1987)	No, eggs and larvae are associated with leaves; adults are rather large moths (wing span of up to 4 inches and a body length of up to 2 inches) and pierce on fruit exclusively at night, and only during outbreaks, as melon is not a preferred host (Waterhouse and Norris, 1987). Moths will not be present during harvest. The genus *Eudocima* is quarantine for the continental United States, Hawaii, and Puerto Rico (ARM, 2025). Present in Hawaii, Guam, and American Samoa (Waterhouse and Norris, 1987).
INSECT: Lepidoptera: Noctuidae *Agrotis segetum* (Denis & Schiffermüller)	Kim et al., 2011	Annecke and Moran, 1982	Leaves, roots, stems (Annecke and Moran, 1982)	No, this cutworm generally feeds on stems of young plants and underground portions of hosts (Annecke and Moran, 1982). Present in New Mexico (Joukhadar and Walker, 2018).
INSECT: Lepidoptera: Noctuidae *Chrysodeixis eriosoma* Doubleday	ESK, 1994; Yang et al., 2006	Roberts, 1979	Flowers, fruit, leaves (based on general feeding behavior) (Roberts, 1979)	No, see notes in section 2.2. Present in Hawaii (UHIM, 2025) and Guam (Muniappan and Esguerra, 1999).

Pest name	**Presence in the Republic of Korea**	**Host association**	**Plant part(s)** [2]	**Considered further?**[3]
INSECT: Lepidoptera: Noctuidae *Helicoverpa armigera* (Hübner); syn. *Heliothis armigera* (Hbn.)	Kim et al., 2018a	Rao and Rao, 1999	Flowers (Kaur et al., 2016; Rao and Rao, 1999) Fruit, grain, leaves, developing seeds (general feeding behavior) (Bharati et al., 2007; CABI, 2025; van den Berg et al., 2001)	No, see notes in section 2.2.
INSECT: Thysanoptera: Thripidae *Frankliniella intonsa* (Trybom)	Alim et al., 2018; Yeon et al., 2011	Yeon et al., 2011	Apical buds/shoots (Barba-Alvarado et al., 2020; Yeon et al., 2011), flowers (Yeon et al., 2011), fruit (Umeya and Okada, 2003)	No, the outer skin of infested young fruit oozes a pale pink juice, causing green spots and corky spots as the fruit swell, reducing its commercial value (Umeya and Okada, 2003). Infested fruit will be culled because of visible damage. Non-quarantine for the continental United States; quarantine for Hawaii and Puerto Rico (ARM, 2025).
INSECT: Thysanoptera: Thripidae *Thrips flavus* Schrank	Lee et al., 2001	Veer, 1985[4]	Flower, Leaves (Veer, 1985)	No. Quarantine for the continental United States; uncategorized for Hawaii, and Puerto Rico (ARM, 2025).

[4] Host cited as *Cucumia meloutilissimus* [sic], referring to *Cucumis melo* var. *utilissimus*, currently *Cucumis melo* L. subsp. *agrestis* (Naudin) Pangalo var. *conomon* (Thunb.) Makino (*Cucumis melo* Conomon Group).

Pest name	**Presence in the Republic of Korea**	**Host association**	**Plant part(s)** [2]	**Considered further?**[3]
INSECT: Thysanoptera: Thripidae *Thrips palmi* Karny	Alim et al., 2018; Choi et al., 2013; Park et al., 2010	Bhatti, 1980; Rebijith et al., 2014	Flower and leaf buds (Bhatti, 1980), flowers (Wang et al., 2023), fruit (ARM, 2025), leaves (Kajita et al., 1996; Wang et al., 2023)	No, see notes in section 2.2. Present in the continental United States (Florida), American Samoa, Hawaii, Guam, and U.S. Virgin Islands (CABI, 2025).
MITE: Trombidiformes: Tetranychidae *Tetranychus truncatus* Ehara	Lee et al., 1999b	Maheswary et al., 2015; Peanut Crop Germplasm, 2003	Leaves (Maheswary et al., 2015; Peanut Crop Germplasm, 2003)	No.
MITE: Trombidiformes: Tetranychidae *Petrobia latens* (Müller)	Lee et al., 1986	Michelbacher et al., 1952	Leaves (based on general feeding behavior) (Dibble, 1978)	No, *Petrobia latens* is only associated with leaves of cucurbits (Dibble, 1978). The genus *Petrobia* is quarantine for the continental United States, Hawaii, and Puerto Rico (ARM, 2025).
BACTERIUM: '*Candidatus* Phytoplasma solani'-related strains (16SrXII-A)	Jung et al., 2012	Girsova et al., 2021	Entire plant (Girsova et al., 2021; Quaglino et al., 2013)	No, it is vectored by insects in the families Cicadellidae and Cixiidae, which feed on the phloem of plants, not fruit (Quaglino et al., 2013). Quarantine at the genus level (ARM, 2025).

Pest name	Presence in the Republic of Korea	Host association	Plant part(s) [2]	Considered further?[3]
CHROMISTAN: *Phytophthora melonis* Katsura	Noh et al., 2014	Mirtalebi and Banihashemi, 2019	Crown, roots, soil (Mirtalebi and Banihashemi, 2019), fruit [other cucurbits] (Erwin and Ribeiro, 1996)	No, fruit is expected to be free of soil. Additionally, rotting or damaged fruit would be left unharvested or culled and would be unlikely to make it to market. Discarded, latently infected fruit would be highly unlikely to contact potential hosts. Quarantine at the genus level (ARM, 2025).
FUNGUS: *Fusarium andiyazi* Marasas, Rheeder, Lampr., K.A. Zeller & J.F. Leslie	Seo and Kim, 2017	Seo and Kim, 2017	Stems, roots (Seo and Kim, 2017)	No. Quarantine at the genus level (ARM, 2025).
FUNGUS: *Fusarium asiaticum* O'Donnell, T. Aoki, Kistler & Geiser	Choi et al., 2020	Hao et al., 2021	Fruit (Hao et al., 2021)	No, diseased fruits have water-soaked lesions and pink mold (Hao et al., 2021) and would be unharvested or culled. Discarded, latently infected fruit would be highly unlikely to contact potential hosts. Quarantine at the genus level (ARM, 2025).
FUNGUS: *Fusarium incarnatum* (Desm.) Sacc. syns.: *Fusarium pallidoroseum* (Cooke) Sacc., *Fusarium semitectum* Berk. & Ravenel	Kim and Kim, 2004	Bruton and Miller, 1997; Wonglom and Sunpapao, 2020	Crown, fruit (Bruton and Miller, 1997; Kim and Kim, 2004; Wonglom and Sunpapao, 2020)	No, see note in section 2.2.

Pest name	**Presence in the Republic of Korea**	**Host association**	**Plant part(s)** [2]	**Considered further?**[3]
FUNGUS: *Stagonosporopsis caricae* (Sydow & P. Sydow) Aveskamp, Gruyter & Verkley syn. *Phoma caricae-papayae* (Tarr) Punith.	Jeong et al., 2022	Jeong et al., 2022	Fruit, leaves, stems (Jeong et al., 2022)	No, rotting or damaged fruit would be left unharvested or culled and would be unlikely to make it to market. Discarded, latently infected fruit would be highly unlikely to contact potential hosts. Quarantine only for Puerto Rico (ARM, 2025).
FUNGUS: *Stagonosporopsis cucumeris* L.W. Hou, L. Cai & Crous	Das et al., 2023	Das et al., 2023	Fruit (Das et al., 2023)	No, infected fruit shows obvious symptoms, including shriveling and dark depressions (Das et al., 2023), and would be unharvested or culled. Discarded, latently infected fruit would be highly unlikely to contact potential hosts. Quarantine at the genus level (ARM, 2025).
VIRUS: Crinivirus Cucurbit chlorotic yellows virus (CCYV)	Cho et al., 2021	Cho et al., 2021; Zeng et al., 2011	Entire plant (Cho et al., 2021)	No, criniviruses are whitefly-transmitted; whiteflies would feed on foliage, not fruit (Li et al., 2016; Palumbo, 2013). Reported in Alabama, California, Florida, Georgia, and Texas (CABI, 2025).
VIRUS: *Polerovirus MABYV* (Melon aphid-borne yellows virus)	Byun et al., 2022	Cheewachaiwit et al., 2017; Knierim et al., 2010; Xiang et al., 2008	Entire plant (Xiang et al., 2008)	No, see notes in section 2.2.

Pest name	Presence in the Republic of Korea	Host association	Plant part(s) [2]	Considered further?[3]
VIRUS: ***Tobamovirus kyuri*** **(Kyuri green mottle mosaic virus)**	**Cheon et al., 2000; Lee et al., 1999a**	**Daryono et al., 2005; Kim et al., 2009a**	**Entire plant [including seed] (Cho et al., 2007; Daryono et al., 2005; Kim et al., 2009a)**	**Yes, it is present in fruit and is seed transmitted (Cho et al., 2007; Daryono et al., 2005; Kim et al., 2009a).** **Quarantine at the genus level (ARM, 2025).**
VIRUS: ***Tobamovirus viridimaculae*** **(cucumber green mottle mosaic virus)**	**Yoon et al., 2008**	**Dombrovsky et al., 2017**	**Entire plant [including seeds] (Dombrovsky et al., 2017)**	**Yes.** **CGMMV is considered transient and under official control in California (USDA APHIS, 2025).**

2.2. Notes on pests identified in the pest list

Chrysodeixis eriosoma **Doubleday (Insect: Lepidoptera: Noctuidae):** This species is present in the Republic of Korea (ESK, 1994; Yang et al., 2006) and feeds on leaves, flowers, and sometimes fruit of host plants (Roberts, 1979). It primarily feeds on plants in families Solanaceae and Asteraceae (Dugdale, 1998; Mau and Kessing, 1991). We only found evidence of *C. eriosoma* feeding on the fruit of watermelon (Schreiner and Nafus, 1990), tomato, or pods of green bean (Dugdale, 1998). Larvae primarily feed on the underside of leaves (Banerjee and Halder, 2023; Dugdale, 1998), while later instar larvae feed from leaf margins and chew holes through leaves (Banerjee and Halder, 2023; Dugdale, 1998; Mau and Kessing, 1991). We found associations between this species and Oriental melon (Roberts, 1979), but no information on the plant part being infested. Additionally, the external feeding is highly visible; therefore, we do not expect the insect to be associated with marketable fruit of Oriental melon.

Helicoverpa armigera **(Hübner) (INSECT: Lepidoptera: Noctuidae):** We were unable to find details on the specific melon plant parts damaged by the cotton bollworm. Due to the lack of information on melon, it is likely that it is not a primary host of the cotton bollworm. Cotton bollworm larvae generally feeds on flowers, leaves, and developing seeds, grain, or fruit of host plants (Bharati et al., 2007; CABI, 2025; Kay, 2007; van den Berg et al., 2001), but not on mature fruit. The cotton bollworm feeds internally in some fruits, such as pepper or tomato (CABI, 2025), but not others. In zucchini, *Cucurbita pepo*, larvae prefer to feed on flowers and not fruit (Kay, 2007). Any incidental feeding on zucchini fruit occurs on very young fruit, resulting in bent fruit as it grows (Kay, 2007). Due to the lack of reports of the cotton bollworm on melon, and the general feeding behavior of the cotton bollworm on other hosts, it is unlikely that the cotton bollworm will be associated with mature melon fruit at harvest.

Thrips palmi **Karny (Thysanoptera: Thripidae):** The melon thrips is distributed throughout tropical regions in Asia, Africa, South America, Oceania, and the Caribbean, as well as Florida (Seal, 2004), Hawaii (Hata et al., 1991), Guam (Schreiner and Nafus, 1986), American Samoa

(Ali and Vargo, 1992), and Puerto Rico (Pantoja et al., 1988; Viteri et al., 2010). While melon thrips is an important greenhouse pest and may infest protected environments anywhere, researchers estimate that the outdoor establishment of permanent populations would be restricted to tropical regions (Capinera, 2013). Permanent populations have only been documented south of Orlando, Florida (Capinera, 2013). Initially detected in 1990 (Capinera, 2023), melon thrips are not under official control. Surveys conducted over the last thirty years indicate that melon thrips are likely established throughout the climate zones suitable for population development.

Additionally, *Thrips palmi* feeds mainly on leaves of *Cucumis melo* (Kajita et al., 1996), generating white spots along the veins as early symptoms of damage, progressing eventually to entire leaves turning them from yellow to brown while wilting, and falling off; this also indirectly affects the set rate and the color of the net in fruit (Umeya and Okada, 2003). Melon thrips also causes injury at points of new growth (Bhatti, 1980).

***Fusarium incarnatum* (Desm.) Sacc.:** This fungus (syns. *Fusarium pallidoroseum* (Cooke) Sacc., *Fusarium semitectum* Berk. & Ravenel) is associated with *C. melo* (Farr and Rossman, 2025) and is present in the Republic of Korea (Ha et al., 2023) and widespread in the continental United States, Puerto Rico (Farr and Rossman, 2025; UGA, 2025b), and Hawaii (Dudley et al., 2006). While this fungus is a quarantine pest for the continental United States (ARM, 2025), it has been in the United States since as early as 1878 and was reported from multiple states prior to 1960 (Farr and Rossman, 2025). This pathogen only affects damaged fruit (Wonglom and Sunpapao, 2020), which would be excluded from the pathway.

***Polerovirus MABYV* (melon aphid-borne yellows virus):** MABYV, while not seed-borne, would potentially be present in imported Oriental melon fruit (Xiang et al., 2008). It is unclear how this virus affects fruit production, but the congener Cucurbit aphid-borne yellows virus can cause yield losses of 40 to 50% when infection occurs in young melon and cucumber plants (Lecoq et al., 1992). Therefore, we expect the prevalence of MABYV in harvested melon fruit to be low. MABYV is aphid-vectored (Knierim et al., 2010; Xiang et al., 2008), and aphids can be associated with melon fruit (Lecoq et al., 2003). However, the likelihood of viruliferous aphids surviving transport and contacting hosts of MABYV in the United States is negligible in fruit for consumption.

2.3. Pests considered but not included on the pest list

2.3.1. Organisms with non-quarantine status

We found evidence of organisms that are associated with watermelon and are present in the export area; however, they are not of quarantine significance for the PRA area (see Appendix).

Armored scales (Hemiptera: Diaspididae): These insects are highly unlikely to establish via the fruits or vegetables for consumption pathway due to their very limited ability to disperse to new host plants (Miller et al., 1985; PERAL, 2007). Also, diaspidids on fruits and vegetables for consumption are considered non-actionable at U.S. ports of entry (NIS, 2008). For these reasons, armored scales are included in the Appendix rather than Table 1, even if they are not present in the PRA area.

2.3.2. Quarantine pests considered but not included on the pest list

Duponchelia fovealis **Zeller (Lepidoptera: Pyralidae):** Melon is a host of *D. fovealis* (Espinosa et al., 2014). The moth was found in greenhouses in 2015 and 2016 in the Republic of Korea, but was not found again after pesticide applications (Lee et al., 2018). Larvae of *D. fovealis* are only associated with plant organs of melon in direct contact with the ground, and exclusively associated with the fruit surface of melons, rendering them unmarketable and prompting culling (Espinosa et al., 2014). We did not find any additional reports of the moth in the Republic of Korea, and therefore, did not include the moth on the pest list. *Duponchelia fovealis* is present in the continental United States (NAPPO, 2010). It is quarantine for Hawaii and Puerto Rico (ARM, 2025).

Ostrinia furnacalis **(Guenée) (Lepidoptera: Crambidae):** This species is present in the Republic of Korea (Kim et al., 2018a). *Cucumis melo* is listed as an alternative host of *O. furnacalis* (Nafus and Schreiner, 1991). *Cucumis melo* did not prove to be a suitable host for *O. furnacalis* after field experiments and laboratory bioassays (Yuan et al., 2015). *Ostrinia furnacalis* is mainly a pest of maize and sweetcorn (Mutuura and Munroe, 1970; Nafus and Schreiner, 1991). We found no other reports confirming *O. furnacalis* association or economic impacts on *Cucumis melo* as an alternative host, and therefore did not include it in Table 1. *Ostrinia furnacalis* is present in Guam and the Northern Mariana Islands (Abbas et al., 2025). The genus *Ostrinia* is quarantine for the continental United States, Hawaii, and Puerto Rico (ARM, 2025).

Acidovorax valerianellae **Gardan et al.:** This bacterium is present in the Republic of Korea and has been reported naturally infected watermelon (Han et al., 2012b). Melon is an experimental host (Kim et al., 2017), and therefore, we do not expect this bacterium to be present in commercial production of Oriental melon.

Colletotrichum boninense **Moriwaki, Toy. Sato & Tsukib**.: This fungus is present in the Republic of Korea (Farr and Rossman, 2025) and has been isolated from *C. melo* (Moriwaki et al., 2003). However, it is unclear if it is pathogenic on this host or associated with fruit. Fruit for consumption is a dead-end pathway and would likely end up in landfills if not consumed; therefore, we consider the likelihood of establishment negligible.

Fusarium oxysporum **Schltdl.: Fr.**: This fungus is present in the Republic of Korea and is associated with *C. melo* (CABI, 2025; Farr and Rossman, 2025). Reports of *F. oxysporum* in the Republic of Korea associated with *C. melo* are likely *forma specialis melonis* or f. sp. *niveum* (CABI, 2025; Farr and Rossman, 2025), which are not quarantine pathogens (see Appendix).

Tobamovirus cucurbitae **(zucchini green mottle mosaic virus):** This tobamovirus is present in the Republic of Korea and has been successfully artificially inoculated into *C. melo* (Cho et al., 2007); however, we could not find evidence of natural infection in Oriental melon, and therefore, we do not expect this virus to be present in commercial production of Oriental melon.

2.4. Pests selected for further analysis or already regulated

We identified three quarantine pests for further analysis (Table 2).

Table 2. Pests selected for further analysis

Pest type	Taxonomy	Species names
Insect	Diptera: Tephritidae	*Bactrocera depressa* (Shiraki)
Virus	Martellivirales: Virgaviridae	*Tobamovirus kyuri* (Kyuri green mottle mosaic virus)
Virus	Martellivirales: Virgaviridae	*Tobamovirus viridimaculae* (cucumber green mottle mosaic virus)

3. Assessing Pest Risk Potential

3.1. Introduction

Risk is described by the likelihood of introduction, the potential consequences, and the associated uncertainty. For each pest, we determined if an endangered area exists within the United States. The endangered area is defined as the portion of the PRA area where ecological factors favor the pest's establishment and where the pest's presence will likely result in economically important impacts. If a pest causes an unacceptable impact, that means it could adversely affect agricultural production by causing a yield loss of 10 percent or greater, by increasing U.S. production costs, by impacting an environmentally important host, or by impacting international trade. After the endangered area is defined, we assessed the pest's likelihood of introduction into that area via the imported commodity.

The likelihood of introduction is based on the potential entry and establishment of a pest. We qualitatively assessed this using the ratings: Low, Medium, and High. The elements comprising the likelihood of introduction are interdependent; therefore, the model is multiplicative rather than additive. We defined the ratings as follows:

> **High**: This outcome is highly likely to occur because the events required occur frequently.
> **Medium**: This outcome can occur; however, the combination of required events occurs only occasionally.
> **Low**: This outcome is less likely because the exact combination of required events seldom occur or rarely align properly in time and space.

We addressed uncertainty associated with each element as follows:

> **Negligible:** Additional or more reliable evidence is very unlikely to change the rating.
> **Low:** Additional or more reliable evidence probably will not change rating.
> **Moderate:** Additional or more reliable evidence may or may not change rating.
> **High:** Reliable evidence is not available.

3.2. Assessment

3.2.1. *Bactrocera depressa* (Diptera: Tephritidae)

The pumpkin fruit fly infests the pulp of fruit of Cucurbitaceae, particularly pumpkin (Han et al., 2017; Han et al., 1994). Larval development leads to the rotting of fruit (Kang et al., 2008). Oviposition begins in the summer months and continues into the fall (Kang et al., 2008; Takamatsu, 1952). Nearly 30 eggs are laid per fruit at a depth of 4 to 10 mm (Kang et al., 2008; Takamatsu, 1952). Oviposition symptoms are difficult to detect, so infested fruit may be sold to customers at the market. Customers later find the fruit is rotting and are disgusted to find numerous larvae within the fruit (Kang et al., 2008). The pumpkin fruit fly overwinters as pupae and adults begin appearing again in May (Kang et al., 2008). This fruit fly is primarily found at higher elevations (Takamatsu, 1952).

The endangered area for *Bactrocera depressa* within the United States

Geographic potential: *Bactrocera depressa* is present in **Asia:** China [Sichuan, Henan, Gansu, Hubei], Japan [Hokkaido, Honshu, Sikoku, Kyushu] (Han et al., 2017), South Korea (Han et al., 1994), and Taiwan (Han et al., 2017). These areas encompass Plant Hardiness Zones 5-10 (Takeuchi et al., 2018).

Hosts in PRA area: The pumpkin fruit fly primarily infests fruit in the family **Cucurbitaceae**, however, tomato, in the family **Solanaceae**, may also be affected.

Cucurbitaceae: *Citrullus lanatus* (watermelon) (Han et al., 1994; Okadome, 1962; Takamatsu, 1952), *Cucumis melo* (Han et al., 2017; Han et al., 1994), *Cucumis sativus* (cucumber) (Okadome, 1962; Takamatsu, 1952), *Cucurbita moschata* (squash) (Han et al., 2017; Okadome, 1962; Takamatsu, 1952), *Cucurbita pepo* (acorn squash, pumpkin, and zucchini) (Han et al., 1994; Kang et al., 2008), *Lagenaria siceraria* (bottle gourd) (Okadome, 1962; Takamatsu, 1952), *Luffa aegyptiaca* (sponge gourd) (Takamatsu, 1952); and **Solanaceae:** *Solanum lycopersicum* (tomato) (Han et al., 1994; Okadome, 1962; Takamatsu, 1952).

Economically important hosts[5]*:* Cucumber, pumpkin, squash, tomato, and watermelon (NASS, 2019).

Potential consequences on economically important hosts at risk: This pest is likely to cause unacceptable consequences because the larvae infest the pulp of host fruits, leading to the fruit rotting (Han et al., 2017; Han et al., 1994; Kang et al., 2008). High infestation rates, up to 43.5% of fruit, have been reported in pumpkin (Han et al., 1994). High numbers of larvae have been reported per pumpkin fruit, with averages ranging from 46 to 168 larvae per fruit (Han et al., 1994).

Endangered area: Plant Hardiness Zones 5 to 10 (Takeuchi et al., 2018) of higher elevations in the lower 48 states where suitable hosts occur.

[5] As defined by ISPM No. 5, potential economic importance applies to crops, the environment (ecosystems, habitats, or species), and to other specified values such as tourism, recreation and aesthetics (IPPC, 2022).

The likelihood of entry of *Bactrocera depressa* into the endangered area via melon imported from the Republic of Korea

Risk Element	Risk Rating	Uncertainty Rating	Evidence for rating (and other notes as necessary)
Pest prevalence on the harvested commodity	Low	Low	Melon fruit has only been reported as a host of *Bactrocera depresa* in one area of the Republic of Korea, where the fly causes 10 percent or less damage to the fruit (Han et al., 1994). The fruit fly also seems to only infest fruit at higher altitudes in the mountains (Han et al., 1994; Takamatsu, 1952). We have chosen a Low-risk rating because the pest is rarely reported attacking the commodity species in the export area and has a low pest incidence.
Likelihood of surviving post-harvest processing before shipment	Low	Low	Eggs are oviposited into fruit at a depth of 4 to 10 mm (Kang et al., 2008; Takamatsu, 1952) and oviposition symptoms are difficult to detect (Kang et al., 2008). Removal of dirt, debris, and culling will not reduce the presence of fruit fly eggs oviposited within the fruit; therefore, we maintain a risk rating of Low.
Likelihood of surviving transport and storage conditions of the consignment	Low	n/a	Transport and storage conditions were not considered; therefore, we maintain a risk rating of Low.
Overall Likelihood of Entry	Low	n/a	n/a

The likelihood of establishment of *Bactrocera depressa* into the endangered area via melon imported from the Republic of Korea

Risk Element	Risk Rating	Uncertainty Rating	Evidence for rating (and other notes as necessary)
Likelihood of Establishment	Medium	Moderate	The pumpkin fruit fly is primarily found at higher elevations (Han et al., 2017; Han et al., 1994; Takamatsu, 1952). It has been collected in mountains numerous times (Han et al., 2017; Takamatsu, 1952). Therefore, the fruit fly may be limited to areas of the United States at higher elevations. Additionally, the pumpkin fruit fly has a narrow host range, limited primarily to Cucurbitaceae (Han et al., 2017; Han et al., 1994; Takamatsu, 1952); therefore, adult fruit flies may have difficulty in locating a new host to reproduce on. However, adult fruit flies are highly mobile (Takamatsu, 1952), enabling them to disperse easily and locate a new host. Additionally, tens of larvae develop within a single fruit (Han et al., 1994; Takamatsu, 1952), although several hundred have been reported in a single fruit (Han et al., 1994). The high number of larvae per fruit would enable the fruit fly to reproduce at a rapid rate once a host is found. Therefore, we chose a risk rating of Medium.
Overall Likelihood of Establishment	Medium	n/a	n/a

The likelihood of introduction (combined likelihoods of entry and establishment) of *Bactrocera depressa* into the endangered area via melon imported from the Republic of Koreaa is Medium.

<u>3.2.2. *Tobamovirus kyuri*: Kyuri green mottle mosaic virus (Martellivirales: Virgaviridae)</u>

Kyuri green mottle mosaic virus (KGMMV) is a virus in the genus *Tobamovirus* that causes a mosaic on leaves and distortion of fruit on infected cucumber, melon, and zucchini (Daryono et al., 2016; Daryono et al., 2005; Park et al., 1999; Yoon et al., 2001) and, like other tobamoviruses, has very stable viral particles (Balsak, 2023; Daryono et al., 2006). KGMMV is found in cucumber, zucchini, and melon fruits and seeds (Balsak, 2023; Kwon et al., 2014); The virus systemically infects cucurbit hosts and is seed-borne and likely seed-transmitted in several cucurbit species (Balsak, 2023; Kwon et al., 2014).

The endangered area for Kyuri green mottle mosaic virus within the United States

Geographic potential: KGMMV was reported in **Asia**: Indonesia, Japan, South Korea, and Turkey (Adachi-fukunaga and Tomitaka, 2025; Balsak, 2023; Daryono et al., 2005; Kim et al., 2009a).

Comparing the plant hardiness zones with known geographic distribution, we predict that the pest could establish in areas corresponding to Plant Hardiness Zones 3 to 14 (Takeuchi et al., 2018).

Hosts in PRA area: The main hosts in the PRA area are **Cucurbitaceae:** *Cucumis melo* (melon, cantaloupe), *Cucumis sativus* (garden cucumber), *Cucurbita pepo* (field pumpkin, zucchini), and *Luffa acutangula* (angled loofah) (Cheon et al., 2000; Daryono et al., 2006; Kim et al., 2009a; Lee et al., 1999a; NRCS, 2025).

Economically important hosts[6]*:* Economically important hosts at risk include cucumber, melon, and zucchini.

Potential consequences on economically important hosts at risk: This pest is likely to cause unacceptable consequences because it can significantly reduce yield on infected plants (Daryono et al., 2016; Daryono et al., 2005; Yoon et al., 2001). On zucchini and melon, infection causes chlorotic spots and mosaic of leaves and malformed fruit (Daryono et al., 2005; Park et al., 1999). In cucumber, KGMMV causes severe leaf mosaic and fruit distortion (Yoon et al., 2001).

Endangered area: The area endangered by KGMMV includes areas in the United States within PHZ 3 to 14 where cucurbits are grown (NRCS, 2025; Takeuchi et al., 2018).

[6] As defined by ISPM No. 5, potential economic importance applies to crops, the environment (ecosystems, habitats, or species), and to other specified values such as tourism, recreation and aesthetics (IPPC, 2024).

The likelihood of entry of Kyuri green mottle mosaic virus into the United States via melon imported from the Republic of Korea

Risk Element	Risk Rating	Uncertainty Rating	Evidence for rating (and other notes as necessary)
Pest prevalence on the harvested commodity	Low	High	Melons in Seongju County, Republic of Korea, were “frequently found” to show symptoms in 2006 (Kim et al., 2009a); however, we could not find any recent reports. While asymptomatic fruit has not been specifically reported in KGMMV infections, infected fruit are not mentioned in every report and asymptomatic fruit has been reported in the closely-related Cucumber green mottle mosaic virus (Dombrovsky et al., 2017). Therefore, occasional latent infections are likely, particularly in plants initially infected at maturity. Reduced yields and unharvested, unmarketable fruit (Daryono et al., 2016; Daryono et al., 2005), alone with no clear evidence of latently infected fruit, lead to a risk rating of KGMMV of Low with elevated uncertainty.
Likelihood of surviving post-harvest processing before shipment	Low	Medium	Some mildly symptomatic melon fruits are likely to be harvested and later culled, leading to a slight reduction in uncertainty of a Low risk rating. However, culling post-harvest would likely not significantly reduce the risk rating, especially with asymptomatic fruit still present in the pathway.
Likelihood of surviving transport and storage conditions of the consignment	Low	Medium	Transport and storage conditions were not considered in this analysis; therefore, we did not change the previous risk rating.
Overall Likelihood of Entry	Low	n/a	n/a

The likelihood of establishment of Kyuri green mottle mosaic virus into the endangered area via melon imported from the Republic of Korea

Risk Element	Risk Rating	Uncertainty Rating	Evidence for rating (and other notes as necessary)
Likelihood of Establishment	Low	Moderate	KGMMV is physically very stable and can remain infectious for several months; however, seed transmission rates are low (0.5 to 1.1%) (Balsak, 2023). Fruit is intended for consumption and is likely to be eaten or disposed of through normal disposal channels, limiting the opportunities for the infected fruit and seeds to contact hosts. KGMMV has a very low chance of being introduced into agricultural settings and is unlikely to establish from the fruit for consumption pathway. Based on this evidence, we rated this risk element “Low” with a “Moderate” uncertainty because of its ability to survive outside of its host.
Overall Likelihood of Establishment	Low	n/a	n/a

The likelihood of introduction (combined likelihoods of entry and establishment) of Kyuri green mottle mosaic virus into the endangered area via melon imported from the Republic of Korea is Low.

<u>3.2.3. *Tobamovirus viridimaculae*: Cucumber green mottle mosaic virus (Martellivirales: Virgaviridae)</u>

Cucumber green mottle mosaic virus (CGMMV) is a virus in the genus *Tobamovirus* that causes a severe mosaic symptom on infected watermelon and cucumber (Yoon et al., 2008) and, like other tobamoviruses, has very stable viral particles (Dombrovsky et al., 2017). CGMMV is found in cucumber and squash fruits (Al-Tamimi et al., 2009; Van Dorst, 1988). The virus systemically infects cucurbit hosts (Moreno et al., 2004) and is seed-borne and seed-transmitted in several cucurbit species (Al-Tamimi et al., 2009; Liu et al., 2014; Yoon et al., 2008). The association of CGMMV with seed is likely to have contributed to its spread worldwide (Dombrovsky et al., 2017).

The endangered area for Cucumber green mottle mosaic virus within the United States

<u>*Geographic potential:*</u> It was reported in **Africa**: Nigeria; **Asia**: China, Georgia, India, Iran, Israel, Japan, Jordan, Lebanon, Myanmar, Pakistan, Saudi Arabia, South Korea, Sri Lanka, Syria, Taiwan, Thailand, Turkey; **Europe**: Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Hungary, Latvia, Lithuania, Moldova, Norway, Poland, Romania, Russia, Spain, Sweden, the Netherlands, the United Kingdom, Ukraine, Yugoslavia (former); **North America**: Canada; **Oceania**: Australia (CABI, 2025). CGMMV is considered transient and under official control in California (USDA APHIS, 2025).

Comparing the plant hardiness zones with known geographic distribution, we predict that the pest could establish in areas corresponding to Plant Hardiness Zones 3 to 14 (Takeuchi et al., 2018).

Hosts in PRA area: CGMMV infects hosts in the Cucurbitaceae and Euphorbiaceae families (Dombrovsky et al., 2017). The main hosts in the PRA area are **Cucurbitaceae:** *Citrullus lanatus* (watermelon), *Cucumis melo* (melon, cantaloupe), *Cucumis sativus* (garden cucumber), *Cucurbita maxima* (turban squash, pumpkin), *Cucurbita maxima* x *moschata*, *Cucurbita moschata* (crookneck squash), *Cucurbita pepo* (field pumpkin, zucchini), *Lagenaria siceraria* (bottle gourd) and *Trichosanthes cucumerina* (snake gourd) (CABI, 2025; Dombrovsky et al., 2017; Formiga et al., 2019; NRCS, 2025; Shargil et al., 2017).

Economically important hosts[7]: Economically important hosts at risk include cucumber, melon, squash, pumpkin, watermelon (Dombrovsky et al., 2017; Lecoq and Desbiez, 2012).

Potential consequences on economically important hosts at risk: This pest is likely to cause unacceptable consequences because it can affect the yield on infected plants (Liu et al., 2014; Reingold et al., 2015). Cucumber plants can be stunted, show mottling and mosaic on leaves and fruit distortions; early infections cause yield losses between 10 to 33 percent (Fletcher et al., 1969; Ling et al., 2014; Nilsson, 1977). In melon mosaic symptoms present in young leaves can disappear from mature foliage; fruits show malformations and netting (Dombrovsky et al., 2017). Some melon cultivars are asymptomatic (Rajamony et al., 1990; Sugiyama et al., 2006). Watermelon fruits show deformity, spongy flesh and yield losses can reach 48 percent (Dombrovsky et al., 2017; Zhou et al., 2008).

Endangered area: The area endangered by CGMMV includes areas in the United States within PHZ 3 to 14 where cucurbits are grown (NRCS, 2025; Takeuchi et al., 2018).

[7] As defined by ISPM No. 5, potential economic importance applies to crops, the environment (ecosystems, habitats, or species), and to other specified values such as tourism, recreation and aesthetics (IPPC, 2022).

The likelihood of entry of Cucumber green mottle mosaic virus into the United States via melon fruit imported from the Republic of Korea

Risk Element	**Risk Rating**	**Uncertainty Rating**	**Evidence for rating (and other notes as necessary)**
Pest prevalence on the harvested commodity	Medium	Moderate	Incidence of CGMMV in Republic of Korean melon production was 23% in 2007 (Kim et al., 2008). All fruit and most seeds produced by infected plants will be infected (Dombrovsky et al., 2017; Pitman, 2015; Wu et al., 2011). GGMMV infection can produce asymptomatic fruit, but reduced yields and unharvested, unmarketable fruit (Dombrovsky et al., 2017; Kim et al., 2008) will likely keep the prevalence of CGMMV at Medium with some uncertainty.
Likelihood of surviving post-harvest processing before shipment	Medium	Low	Some mildly symptomatic melon fruits are likely to be harvested and later culled, leading to a reduction in uncertainty. However, culling post-harvest would likely not significantly reduce the risk rating, especially with asymptomatic fruit still present in the pathway.
Likelihood of surviving transport and storage conditions of the consignment	Medium	Low	Transport and storage conditions were not considered in this analysis; therefore, we did not change the previous risk rating.
Overall Likelihood of Entry	Medium	n/a	n/a

The likelihood of establishment of Cucumber green mottle mosaic virus into the United States via melon fruit imported from the Republic of Korea

Risk Element	Risk Rating	Uncertainty Rating	Evidence for rating (and other notes as necessary)
Likelihood of Establishment	Low	Moderate	CGMMV is physically very stable and can remain infectious for several months; however, seed transmission rates are low (0.1% to 2.83%) (Dombrovsky et al., 2017; Wu et al., 2011). Fruit is intended for consumption and is likely to be eaten or disposed of through normal disposal channels, limiting the opportunities for the infected fruit and seeds to contact hosts. CGMMV has a very low chance of being introduced into agricultural settings and is unlikely to establish from the fruit for consumption pathway. Based on this evidence, we rated this risk element "Low" with a "Moderate" uncertainty because of its ability to survive outside of its host.
Overall Likelihood of Establishment	Low	n/a	n/a

The likelihood of introduction (combined likelihoods of entry and establishment) of Cucumber green mottle mosaic virus into the United States via melon fruit imported from the Republic of Korea is Low.

4. Summary

The following pests are considered quarantine significant for the United States. The pests have a reasonable likelihood of following the commodity pathway and would likely cause unacceptable consequences if introduced into the PRA area (Table 3). Thus, the pest(s) are candidates for risk management.

Table 3. Summary of quarantine pests that are candidates for risk management

Pest type	Scientific name	Likelihood of Introduction
Insect	Diptera: Tephritidae	*Bactrocera depressa* (Shiraki)
Virus	Martellivirales: Virgaviridae	*Tobamovirus kyuri* (Kyuri green mottle mosaic virus)
Virus	Martellivirales: Virgaviridae	*Tobamovirus viridimaculae* (cucumber green mottle mosaic virus)

Our assessment of risk is contingent on the application of all components of the pathway as described in section 1.4. The detailed examination and choice of appropriate phytosanitary measures to mitigate pest risk are addressed in a separate document.

5. Literature Cited

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6. Appendix: Pests with non-quarantine status

We found evidence that the organisms listed below are associated with Oriental melon and are present in the Republic of Korea; however, none are of quarantine significance for the United States (ARM, 2025), or as defined by ISPM No. 5 (IPPC, 2024). Although we did not intensively evaluate the evidence, we provide references supporting each pest's potential presence in the Republic of Korea, presence in the United States (if applicable), and association with the Oriental melon. If any of the organisms are **not** present in the United States, we also provided justification for their non-quarantine status. Unless otherwise noted, these organisms are non-actionable at U.S. ports of entry (ARM, 2025).

Organism	In the Republic of Korea	In U.S.	Host Association	Notes
COLLEMBOLA: Symphypleona: Bourletiellidae *Bourletiella hortensis* Fitch	Lim et al., 2012	Babenko et al., 2019; Christiansen and Bellinger, 1994; Lago and Stanford, 1989; NatureServe, 2025	Mills, 1930	n/a
INSECT: Coleoptera: Curculionidae *Hypera postica* (Gyllenhal)	Kim et al., 2018b	CABI, 2025	Umeya and Okada, 2003	n/a
INSECT: Diptera: Agromyzidae *Liriomyza sativae* Blanchard	CABI, 2025	CABI, 2025	CABI, 2025	n/a
INSECT: Diptera: Agromyzidae *Liriomyza trifolii* (Burgess)	CABI, 2025	CABI, 2025	Stegmaier, 1966	n/a
INSECT: Diptera: Anthomyiidae *Delia platura* (Meigen)	Paik et al., 2007	Griffiths, 1997; Reid Jr, 1940	(Reid Jr, 1940); (Umeya and Okada, 2003)	n/a
INSECT: Diptera: Sciaridae *Bradysia impatiens* (Johannsen); syn. *Bradysia agrestis* Sasakawa, *Bradysia difformis* Frey	Chang et al., 2024	Menzel et al., 2003	Menzel et al., 2003; Umeya and Okada, 2003	n/a

Organism	**In the Republic of Korea**	**In U.S.**	**Host Association**	**Notes**
INSECT: Hemiptera: Aleyrodidae *Bemisia tabaci* (B biotype) (Gennadius); syn. *Bemisia argentifolii* Bellows & Perring	Jahan et al., 2015	McKenzie et al., 2012	Abdelkrim et al., 2017; Umeya and Okada, 2003	No Action Required except when on tomato from the Dominican Republic (ARM, 2025).
INSECT: Hemiptera: Aleyrodidae *Bemisia tabaci* (Gennadius)	Malumphy et al., 2009	McKenzie et al., 2012	Li et al., 2011	No Action Required except when on tomato from the Dominican Republic (ARM, 2025).
INSECT: Hemiptera: Aleyrodidae *Bemisia tabaci* (Q biotype) (Gennadius)	Jahan et al., 2015	McKenzie et al., 2012	Abdelkrim et al., 2017	n/a
INSECT: Hemiptera: Aleyrodidae *Trialeurodes vaporariorum* (Westwood)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
INSECT: Hemiptera: Aphididae *Aphis fabae* Scopoli	CABI, 2025	CABI, 2025	CABI, 2025	n/a
INSECT: Hemiptera: Aphididae *Aphis gossypii* Glover	Lee et al., 2015b	CABI, 2025	Charaabi et al., 2008	n/a
INSECT: Hemiptera: Aphididae *Aulacorthum solani* (Kaltenbach)	Jeon and Kim, 2006	CABI, 2025	Alaserhat et al., 2021	n/a
INSECT: Hemiptera: Aphididae *Myzus persicae* (Sulzer)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
INSECT: Hemiptera: Miridae *Lygus rugulipennis* Poppius	Oh et al., 2018	Schwartz and Scudder, 1998	Umeya and Okada, 2003	n/a
INSECT: Hemiptera: Pseudococcidae *Planococcus citri* (Risso)	García Morales et al., 2016	García Morales et al., 2016	García Morales et al., 2016	n/a

Organism	**In the Republic of Korea**	**In U.S.**	**Host Association**	**Notes**
INSECT: Lepidoptera: Crambidae *Spoladea recurvalis* (Fabricius)	CABI, 2025	CABI, 2025	Ehsine and Aoun, 2020	n/a
INSECT: Lepidoptera: Noctuidae *Agrotis ipsilon* (Hufnagel)	CABI, 2025	CABI, 2025	Lee et al., 2023	n/a
INSECT: Lepidoptera: Noctuidae *Peridroma saucia* Hübner	CABI, 2025	CABI, 2025	Schooley et al., 2005	n/a
INSECT: Lepidoptera: Noctuidae *Spodoptera exigua* (Hübner)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
INSECT: Lepidoptera: Noctuidae *Spodoptera frugiperda* (J.E. Smith)	Under eradication (CABI, 2025)	CABI, 2025	CABI, 2025	n/a
INSECT: Lepidoptera: Noctuidae *Trichoplusia ni* (Hübner)	CABI, 2025	CABI, 2025	Lingren and Green, 1984	n/a
INSECT: Thysanoptera: Thripidae *Frankliniella occidentalis* (Pergande)	Alim et al., 2018; Mainali & Lim 2010; Yeon et al., 2011	CABI, 2025	Razi et al., 2017	n/a
INSECT: Thysanoptera: Thripidae *Scirtothrips dorsalis* Hood	Alim et al., 2018; Choi et al., 2013	CABI, 2025	CABI, 2025	n/a
INSECT: Thysanoptera: Thripidae *Thrips setosus* Moulton	Lee et al., 2003	CABI, 2025	Miyazaki and Kudo, 1988	n/a
INSECT: Thysanoptera: Thripidae *Thrips tabaci* Lindeman	CABI, 2025	CABI, 2025	Umeya and Okada, 2003	n/a
MITE: Sarcoptiformes: Acaridae *Tyrophagus putrescentiae* (Schrank)	CABI, 2025	CABI, 2025	Umeya and Okada, 2003	n/a

Organism	In the Republic of Korea	In U.S.	Host Association	Notes
MITE: Trombidiformes: Tarsonemidae *Polyphagotarsonemus latus* (Banks)	Choi et al., 2013	CABI, 2025	Augustine et al., 2023; Umeya and Okada, 2003	n/a
MITE: Trombidiformes: Tarsonemidae *Tarsonemus bilobatus* Suski	Zhang, 2003	Farfan et al., 2021	Umeya and Okada, 2003; Zhang, 2003	n/a
MITE: Trombidiformes: Tetranychidae *Bryobia praetiosa* Koch	Lee et al., 1986	Pratt, 1963	Umeya and Okada, 2003	n/a
MITE: Trombidiformes: Tetranychidae *Tetranychus kanzawai* Kishida	Takafuji and Hinomoto, 2008	Navajas et al., 2001	Goka and Takafuji, 1998	n/a
MITE: Trombidiformes: Tetranychidae *Tetranychus urticae* Koch	Lee et al., 1999b	CABI, 2025	Xu et al., 2019	n/a
NEMATODE: *Ditylenchus destructor* Thorne	CABI, 2025	CABI, 2025	CABI, 2025	n/a
NEMATODE: *Ditylenchus dipsaci* (Kühn, 1857) Filip'ev,	CABI, 2025	CABI, 2025	Swart et al., 2016	n/a
NEMATODE: *Helicotylenchus dihystera* (Cobb) Sher	CABI, 2025	CABI, 2025	CABI, 2025	n/a
NEMATODE: *Helicotylenchus pseudorobustus* (Steiner) Golden	CABI, 2025	CABI, 2025	CABI, 2025	n/a
NEMATODE: *Meloidogyne arenaria* (Neal) Chitwood	CABI, 2025	CABI, 2025	Miranda-Barrios et al., 2020	n/a
NEMATODE: *Meloidogyne incognita* (Kofoid & White) Chitwood	CABI, 2025	CABI, 2025	CABI, 2025	n/a
NEMATODE: *Meloidogyne javanica* (Treub) Chitwood	CABI, 2025	CABI, 2025	CABI, 2025	n/a
NEMATODE: *Merlinius brevidens* (Allen) Siddiqi	CABI, 2025	CABI, 2025	CABI, 2025	n/a

Organism	In the Republic of Korea	In U.S.	Host Association	Notes
NEMATODE: *Pratylenchus brachyurus* (Godfrey) Filipjev & Schuurmans Stekhoven	CABI, 2025	CABI, 2025	CABI, 2025	n/a
NEMATODE: *Pratylenchus penetrans* (Cobb) Filipjev & Schuurmans Stekhoven	CABI, 2025	CABI, 2025	CABI, 2025	n/a
NEMATODE: *Pratylenchus thornei* Sher & Allen	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Acidovorax citrulli* (Schaad et al.) Schaad et al.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Agrobacterium radiobacter* (Beijerinck & van Delden) Conn syn. *Rhizobium radiobacter* (Beijerinck & van Delden) Young et al.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Agrobacterium rhizogenes* (Riker et al.) Conn syn. *Rhizobium rhizogenes* (Riker et al.) Young et al.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Dickeya chrysanthemi* (Burkholder et al.) Samson et al.	CABI, 2025	CABI, 2025; UGA, 2025a	CABI, 2025	n/a
BACTERIUM: *Dickeya dadantii* Samson et al.	Yakubu et al., 2024	CABI, 2025; Curland et al., 2021	CABI, 2025	n/a
BACTERIUM: *Erwinia tracheiphila* (Smith) Bergey et al. emend. Hauben et al.	CABI, 2025	UGA, 2025a	CABI, 2025	n/a
BACTERIUM: *Pantoea agglomerans* (Beijerinck) Gavini et al.	Lee et al., 2010	CABI, 2025	Ceponis et al., 1985	n/a

Organism	**In the Republic of Korea**	**In U.S.**	**Host Association**	**Notes**
BACTERIUM: *Pantoea ananatis* (Serrano) Mergaert et al.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Pectobacterium brasiliense* Portier et al. syn. *Erwinia carotovora* subsp. *brasiliensis* Duarte et al.	CABI, 2025	CABI, 2025	Park et al., 2023	n/a
BACTERIUM: *Pectobacterium carotovorum* Portier et al. syn. *Erwinia carotovora* subsp. *carotovora* (Jones) Bergey et al.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Pseudomonas cichorii* (Swingle) Stapp	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Pseudomonas oryzihabitans* Kodama et al. syn. *Flavimonas oryzihabitans* (Kodama et al.) Holmes et al.	Li et al., 2021	Holmes et al., 1987	Li et al., 2021	n/a
BACTERIUM: *Pseudomonas syringae* pv. *aptata* (Brown & Jamieson) Young, Dye & Wilkie	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Pseudomonas syringae* pv. *lachrymans* (Smith and Bryan) Young et al.	CABI, 2025	CABI, 2025; UGA, 2025a	CABI, 2025	n/a
BACTERIUM: *Pseudomonas syringae* pv. *syringae* van Hall	CABI, 2025	CABI, 2025	CABI, 2025	n/a
BACTERIUM: *Pseudomonas viridiflava* (Burkholder) Dowson	CABI, 2025	CABI, 2025; UGA, 2025a	CABI, 2025	n/a
BACTERIUM: *Ralstonia solanacearum* (Smith) Yabuuchi et al. Race 2	CABI, 2025	CABI, 2025; Yu et al., 2003	Wicker et al., 2002	n/a

Organism	**In the Republic of Korea**	**In U.S.**	**Host Association**	**Notes**
BACTERIUM: *Rhodococcus fascians* (Tilford) Goodfellow	CABI, 2025	CABI, 2025	CABI, 2025	n/a
CHROMISTAN: *Globisporangium debaryanum* (R. Hesse) Uzuhashi, Tojo & Kakish. syn. *Pythium debaryanum* R. Hesse	CABI, 2025	CABI, 2025	Farr and Rossman, 2025	n/a
CHROMISTAN: *Globisporangium irregulare* (Buisman) Uzuhashi, Tojo & Kakish. syn. *Pythium irregulare* Buisman	CABI, 2025	CABI, 2025	CABI, 2025	n/a
CHROMISTAN: *Globisporangium spinosum* (Sawada) Uzuhashi, Tojo & Kakish. syn. *Pythium spinosum* Sawada	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
CHROMISTAN: *Globisporangium ultimum* (Trow) Uzuhashi, Tojo & Kakish. syn. *Pythium ultimum* Trow	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
CHROMISTAN: *Phytophthora cactorum* (Lebert & Cohn) J. Schröt.	CABI, 2025	CABI, 2025	Farr and Rossman, 2025	n/a
CHROMISTAN: *Phytophthora capsici* Leonian	CABI, 2025	CABI, 2025	CABI, 2025	n/a
CHROMISTAN: *Phytophthora citrophthora* (R.H. Sm. & E. Sm.) Leonian	CABI, 2025	CABI, 2025	Farr and Rossman, 2025	n/a
CHROMISTAN: *Phytophthora cryptogea* Pethybr. & Laff.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
CHROMISTAN: *Phytophthora drechsleri* Tucker	CABI, 2025	CABI, 2025	CABI, 2025	n/a

Organism	In the Republic of Korea	In U.S.	Host Association	Notes
CHROMISTAN: *Phytophthora nicotianae* Breda de Haan syn. *Phytophthora parasitica* Dastur	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
CHROMISTAN: *Pseudoperonospora cubensis* (Berk. & M.A. Curtis) Rostovzev	CABI, 2025	CABI, 2025	CABI, 2025	n/a
CHROMISTAN: *Pythium aphanidermatum* (Edson) Fitzp.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
CHROMISTAN: *Pythium deliense* Meurs	Farr and Rossman, 2025	Farr and Rossman, 2025	CABI, 2025	n/a
FUNGUS: *Alternaria alternata* (Fr.: Fr.) Keissl.	CABI, 2025	CABI, 2025; UGA, 2025b	CABI, 2025	n/a
FUNGUS: *Alternaria cucumerina* (Ellis & Everh.) J.A. Elliott	Farr and Rossman, 2025	Farr and Rossman, 2025; UGA, 2025b	Farr and Rossman, 2025	n/a
FUNGUS: *Alternaria tenuissima* (Kunze) Wiltshire	CABI, 2025	CABI, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Aspergillus niger* Tiegh.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Athelia rolfsii* (Curzi) C.C. Tu & Kimbr. syn. *Sclerotium rolfsii* Sacc.	CABI, 2025	CABI, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Berkeleyomyces basicola* (Berk. & Broome) W.J. Nel, Z.W. de Beer, T.A. Duong & M.J. Wingf. syn. *Thielaviopsis basicola* (Berk. & Broome) Ferraris	Choi et al., 2016	CABI, 2025; UGA, 2025b	CABI, 2025	n/a
FUNGUS: *Bipolaris sorokiniana* (Sorokin) Shoemaker	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a

Organism	**In the Republic of Korea**	**In U.S.**	**Host Association**	**Notes**
FUNGUS: *Boeremia exigua* var. *exigua* (Desm.) Aveskamp, Gruyter & Verkley	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Botrytis cinerea* Pers.: Fr.	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Cercospora* c.f. *flagellaris*	Park et al., 2020	Albu et al., 2016	Park et al., 2020	n/a
FUNGUS: *Cercospora citrullina* Cooke	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Cladosporium cucumerinum* Ellis & Arthur	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Cladosporium tenuissimum* Cooke	CABI, 2025	Farr and Rossman, 2025	Gomes et al., 2023	n/a
FUNGUS: *Colletotrichum fructicola* Prihastuti, L. Cai & K.D. Hyde	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Colletotrichum gloeosporioides* (Penz.) Penz. & Sacc. syn. *Glomerella cingulata* (Stoneman) Spauld. & H. Schrenk	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Colletotrichum orbiculare* Damm, P.F. Cannon & Crous	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Colletotrichum truncatum* (Schwein.) Andrus & W.D. Moore	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Curvularia lunata* (Wakker) Boedijn syn. *Cochliobolus lunatus* R.R. Nelson & F.A. Haasis	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Curvularia spicifera* (Bainier) Boedijn	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a

Organism	**In the Republic of Korea**	**In U.S.**	**Host Association**	**Notes**
FUNGUS: *Diaporthe sojae* Lehman	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Ectophoma multirostrata* (P.N. Mathur, S.K. Menon & Thirum.) Valenz.-Lopez, J.F. Cano, Crous, Guarro & Stchigel	Lee et al., 2022	Farr and Rossman, 2025	El-Wakil and Khalil, 2017	n/a
FUNGUS: *Erysiphe pisi* var. *pisi* DC.	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Fusarium acuminatum* Ellis & Everh.	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Fusarium commune* K. Skovg., O'Donnell & Nirenberg	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Fusarium equiseti* (Corda) Sacc. syn. *Gibberella intricans* Wollenw.	CABI, 2025	CABI, 2025; Velez-Rodriguez and Rivera-Vargas, 1985	CABI, 2025	n/a
FUNGUS: *Fusarium graminearum* Schwabe	Kim and Kim, 2004	Farr and Rossman, 2025; UGA, 2025b	Kim and Kim, 2004	n/a
FUNGUS: *Fusarium moniliforme* J. Sheld.	Kim and Kim, 2004	Farr and Rossman, 2025	Kim and Kim, 2004	n/a
FUNGUS: *Fusarium oxysporum* f. sp. *melonis* W.C. Snyder & H.N. Hansen	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Fusarium oxysporum* f. sp. *niveum* (E.F. Sm.) Snyder & H.N. Hansen	CABI, 2025	CABI, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Fusarium proliferatum* (Matsush.) Nirenberg ex Gerlach & Nirenberg	Kim and Kim, 2004	Farr and Rossman, 2025; UGA, 2025b	Kim and Kim, 2004	n/a
FUNGUS: *Fusarium roseum* Link : Fr.	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a

Organism	**In the Republic of Korea**	**In U.S.**	**Host Association**	**Notes**
FUNGUS: *Fusarium sambucinum* Fuckel	Farr and Rossman, 2025	Farr and Rossman, 2025	Kim and Kim, 2004	n/a
FUNGUS: *Fusarium solani* f. sp. *cucurbitae* Snyder & Hansen	Han et al., 2012a	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Geotrichum candidum* Link	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Golovinomyces cichoracearum* (Ehrenb.) Heluta syn. *Erysiphe cichoracearum* DC.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Golovinomyces orontii* (Castagne) Heluta	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Juxtiphoma eupyrena* (Sacc.) Valenzuela-Lopez, Cano, Crous, Guarro & Stchigel syn. *Phoma eupyrena* Sacc.	Farr and Rossman, 2025	Farr and Rossman, 2025	Albornett N and Sanabria de Albarracín, 1994	n/a
FUNGUS: *Lasiodiplodia theobromae* (Pat.) Griffon & Maubl.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Leveillula taurica* (Lév.) G. Arnaud	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Macrophomina phaseolina* (Tassi) Goid.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Monosporascus cannonballus* Pollack & Uecker	Kwon et al., 2001	CABI, 2025	Heo et al., 2001	n/a

Organism	In the Republic of Korea	In U.S.	Host Association	Notes
FUNGUS: *Neocosmospora haematococca* (Berk. & Broome) Samuels, Nalim & Geiser syn. *Haematonectria haematococca* (Berk. & Broome) Samuels & Rossman	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Neocosmospora solani* (Mart.) L. Lombard & Crous syn. *Fusarium solani* (Mart.) Sacc.	CABI, 2025	CABI, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Neocosmospora vasinfecta* E.F. Sm.	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Paramyrothecium roridum* (Tode : Fr.) L. Lombard & Crous syn. *Myrothecium roridum* Tode : Fr.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Penicillium digitatum* (Pers. : Fr.) Sacc.	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Penicillium oxalicum* Currie & Thom	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Phymatotrichopsis omnivora* (Shear) Hennebert	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Plectosphaerella cucumerina* (Lindf.) W. Gams	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Podosphaera fusca* (Fr. : Fr.) U. Braun & S. Takam.	CABI, 2025	CABI, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Podosphaera xanthii* (Castagne) U. Braun & Shishkoff syn. *Sphaerotheca caricae-papayae* Tanda & U. Braun	CABI, 2025	CABI, 2025	CABI, 2025	n/a

Organism	**In the Republic of Korea**	**In U.S.**	**Host Association**	**Notes**
FUNGUS: *Rhizoctonia solani* J.G. Kühn syn. *Thanatephorus cucumeris* (A.B. Frank) Donk	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Rhizopus arrhizus* A. Fisch. syn. *Rhizopus oryzae* Went & Prins. Geerl.	Kwon et al., 2010	Farr and Rossman, 2025	Kwon et al., 2010	n/a
FUNGUS: *Rhizopus stolonifer* (Ehrenb. : Fr.) Vuill.	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Sclerotinia sclerotiorum* (Lib.) de Bary	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Stagonosporopsis citrulli* M.T. Brewer & J.E. Stewart	Jeong et al., 2022	Stewart et al., 2015	Jeong et al., 2022	n/a
FUNGUS: *Stagonosporopsis cucurbitacearum* (Fr. : Fr.) Aveskamp, Gruyter & Verkley syn. *Didymella bryoniae* (Auersw.) Rehm	CABI, 2025	CABI, 2025	CABI, 2025	n/a
FUNGUS: *Stemphylium vesicarium* (Wallr.) E.G. Simmons syn.	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Trichothecium roseum* (Pers. : Fr.) Link	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Verticillium albo-atrum* Reinke & Berthold	Farr and Rossman, 2025	Farr and Rossman, 2025	Farr and Rossman, 2025	n/a
FUNGUS: *Verticillium dahliae* Kleb.	CABI, 2025	CABI, 2025	CABI, 2025	n/a
SLIME MOLD: *Fuligo gyrosa* (Rostaf.) E. Jahn syn. *Physarum gyrosum* Rostaf	Kim et al., 2009b	Vincent, 2017	Kim et al., 2009b	n/a
VIRUS: *Crinivirus cucurbitae* (cucurbit yellow stunting disorder virus)	CABI, 2025	CABI, 2025	CABI, 2025	n/a

Organism	In the Republic of Korea	In U.S.	Host Association	Notes
VIRUS: *Crinivirus pseudobetae* (beet pseudoyellows virus)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
VIRUS: *Crinivirus tomatichlorosis* (tomato chlorosis virus)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
VIRUS: *Cucumovirus CMV* (cucumber mosaic virus)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
VIRUS: *Gammacarmovirus melonis* (melon necrotic spot virus)	Ko et al., 2007; Kwak et al., 2015	CABI, 2025; UGA, 2025d	Ko et al., 2007; Park et al., 2002	n/a
VIRUS: *Nepovirus nicotianae* (tobacco ringspot virus)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
VIRUS: *Orthotospovirus tomatomaculae* (tomato spotted wilt virus)	CABI, 2025	CABI, 2025	Kil et al., 2020	n/a
VIRUS: *Polerovirus CABYV* (cucurbit aphid-borne yellows virus)	Lee et al., 2015a	CABI, 2025	Choi and Choi, 2016; Moya-Ruiz et al., 2023	n/a
VIRUS: *Potyvirus citrulli* (watermelon mosaic virus)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
VIRUS: *Potyvirus cucurbitaflavitesselati* (zucchini yellow mosaic virus)	CABI, 2025	CABI, 2025	CABI, 2025	n/a
VIRUS: *Potyvirus papayanuli* (papaya ringspot virus)	Jin et al., 2009	CABI, 2025	CABI, 2025	n/a
VIRUS: *Tobamovirus tabaci* (tobacco mosaic virus)	CABI, 2025	CABI, 2025	CABI, 2025	n/a