

**Appendix 1**  
**AVOCADO (*Persea americana*) PESTS IN ISRAEL**  
**PRA in export to India of Avocado seeds**

Scientific name (common name)	Order: Family	Plant part affected	Relevance to avocado seed?	Reference
Arthropods				
<i>Abgrallaspis cyanophylli</i> Syn: <i>Hemiberlesia cyanophylli</i>	Hemiptera: Diaspididae	Buds, leaves, and fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Abgrallaspis spinosus</i>	Hemiptera: Diaspididae	Buds, leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Anychus orientalis</i>	Acari: Tetranychidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 1991 .
<i>Aonidiella aurantii</i>	Hemiptera: Diaspididae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Aonidiella orientalis</i>	Hemiptera: Diaspididae	Buds, leaves, and fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Apate monachus</i>	Coleoptera: Bostrichidae	Leaves, stems (internal)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Aphis craccivora</i>	Hemiptera: Aphididae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Aphis gossypii</i>	Hemiptera: Aphididae	Leaves flower	No	Swirski E., Wysoki M., and Izhar Y. 2002.

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<i>Aphis spiraecola</i>	Hemiptera: Aphididae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Aphis fabae</i>	Hemiptera: Aphididae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Asymmetrasca decedens</i>	Hemiptera: Cicadellidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Aspidiotus nerii</i>	Hemiptera: Diaspididae	Buds, leaves, and fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Batocera rufomaculata</i>	Coleoptera: Cerambycidae	Stems (internal) and young fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Bemisia tabaci</i>	Hemiptera: Aleyrodidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Boarmia (Ascotis) selenaria</i>	Lepidoptera: Geometridae	Leaves, fruit (internal)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Cacoecimorpha (Cacoecia) pronubana</i>	Lepidoptera: Tortricidae	Leaves, Fruit (external)	No	CABI  Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Cantharis livida</i>	Coleoptera: Cantharidae	Flowers, fruit (external)	No	Swirski E., Wysoki M., and Izhar Y. 2002.

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<i>Capnodis carbonaria</i>	Coleoptera: Buprestidae	Branches, buds, roots, flowers, leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Capnodis miliaris</i>	Coleoptera: Buprestidae	Stems and roots	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Ceratitis Capitata</i>	Diptera: Tephritidae	Fruit (Internal)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Ceroplastes floridensis</i>	Hemiptera: Coccidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Ceroplastes rusci</i>	Hemiptera: Coccidae	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Chaetanaphothrips orchidii</i>	Thysanoptera: Thripidae	Fruit (External)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Chrysodeixis (Plusia) chalcites</i>	Lepidoptera: Noctuidae	Leaves, fruit (External)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Coccus hesperidum</i>	Hemiptera: Coccidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Coccus longulus</i>	Hemiptera: Coccidae	Stems	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Cryptoblabes gnidiella</i>	Lepidoptera: Pyrilidae	Fruit (Internal)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Cynthia (Vanessa)</i>	Lepidoptera: Nymphalidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.

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<i>cardui</i>				
<i>Dociostaurus maroccanus</i>	Orthoptera: Acrididae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Dysmicoccus brevipipes</i>	Hemiptera: Pseudococcidae	Roots, leaves, fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Euzopherodes vapidella</i>	Lepidoptera: Pyralidae	Fruits (Internal)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Ferrisia malvastra</i>	Hemiptera: Pseudococcidae	Leaves, stems, growing points and fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Fiorinia fioriniae</i>	Hemiptera: Diaspididae	Buds, leaves, and fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Frankliniella occidentalis</i>	Thysanoptera: Thripidae	Leaves, flower and fruit	No	Swirski E., Wysoki M., and Izhar Y. 1991 .
<i>Gryllotalpa tali</i>	Orthoptera: Gryllotalpidae	Stems, roots	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Helicoverpa (Heliothis) armigera</i>	Lepidoptera: Noctuidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Heliothrips haemorrhoidalis</i>	Thysanoptera: Thripidae	Leaves, and fruit	No	Swirski E., Wysoki M., and Izhar Y. 1991.
<i>Icerya aegyptiaca</i>	Hemiptera: Coccoidea	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Icerya purchasi</i>	Hemiptera: Margarodidae	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.

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<i>Lorryia formosa</i>	Acari: Tydeidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Maladera matrida</i>	Coleoptera: Scarabaeidae	Buds, leaves and flowers	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Megachile</i> sp.	Hymenoptera: Megachilidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Milviscutulus mangiferae</i>	Hemiptera: Coccidae	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Monolepta lepida</i>	Coleoptera: Chrysomelidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Myzus persicae</i>	Hemiptera: Aphididae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002 .
<i>Nezara viridula</i>	Heteroptera: Pentatomidae	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Oligonychus perseae</i>	Acari: Tetranychidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Oligotoma nigra</i>	Emboptera: Oligotomidae	Fruit (External)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Omophlus syriacus</i>	Coleoptera: Alleculidae	Flower	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Oxycaraenus hyalinipennis</i>	Heteroptera: Pyrrhocoridae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.

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<i>Parabemisia myricae</i>	Hemiptera: Aleyrodidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Parlatoria oleae</i>	Hemiptera: Diaspididae	Stem, branches, buds and fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Penthimiinae</i> ( <i>Penthimiola</i> ) <i>bella</i>	Hemiptera: Cicadellidae	Fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Phaneroptere nana</i>	Orthoptera: Tettigoniidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Planococcoides lindingeri</i>	Hemiptera: Pseudococcidae	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Planococcus affinis</i>	Hemiptera: Pseudococcidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Planococcus citri</i>	Hemiptera: Pseudococcidae	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Planococcus cryptus</i>	Hemiptera: Pseudococcidae	Roots	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Planococcus longispinus</i>	Hemiptera: Pseudococcidae	Buds, leaves, fruit and stem	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Podagrica malvae</i>	Coleoptera: Chrysomelidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Polyphagotarsonemus latus</i>	Acari: Tetranychidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 1991.

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<i>Potosia angustata</i>	Coleoptera: Scarabaeidae	Stems, leaves, fruit (external)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Protopulvinaria pyriformis</i>	Hemiptera: Coccidae	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Retithrips syriacus</i>	Thysanoptera: Thripidae	Leaves, flower and fruit	No	Swirski E., Wysoki M., and Izhar Y. 1991. <i>Spodoptera littoralis</i>
<i>Saissetia Spodoptera littoralis coffeae</i>	Hemiptera: Coccidae	Buds and leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Scopula ochroleuca ria</i>	Lepidoptera: Geometridae	Fruit (external)	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Spodoptera littoralis</i>	Lepidoptera: Noctuidae	Leaves and fruit	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Stenozigum coloratum</i>	Heteroptera: Pentatomidae	Leaves, and fruit	No	Swirski E., Wysoki M., and Izhar Y. 1991.
<i>Stromatium fulvum</i>	Coleoptera: Cerambycidae	Stems and buds	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Tetraleurdes perseae</i>	Hemiptera: Aleyrodidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Tetranychus cinnabarinus</i>	Acari: Tetranychidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 1991.
<i>Tetranychus urticae</i>	Acari: Tetranychidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 1991.

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<i>Toxoptera aurantii</i>	Hemiptera: Aphididae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Trialeurodes vaporariorum</i>	Hemiptera: Aleyrodidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Trichoplusia ni</i>	Lepidoptera: Noctuidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Trogoxylon impressum</i>	Coleoptera: Lyctidae	Weak/dead buds	No	Swirski E., Wysoki M., and Izhar Y. 2002.
<i>Tydeus californicus</i>	Acari: Tydeidae	Leaves	No	Swirski E., Wysoki M., and Izhar Y. 2002.
Bacteria				
<i>Erwinia carotovora</i>  <i>Syn: Pectobacterium carotovorum</i>	Family: Enterobacteriaceae	Fruit soft rot. Seeds are considered not liable to carry the species.	No	CABI  EPPO  Palti et al, 1977.
<i>Pseudomonas syringae pv. syringae</i>	Family: Pseudomonadaceae	Bacterial fruit blast.  Not known to be transmitted in avocado seeds.	No	CABI  EPPO  Palti et al, 1977.
Fungi and fungi-like				
<i>Alternaria alternata</i>	Anamorphic fungi	Fruit rot in storage	No	CABI



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Syn: <i>Alternaria tenuis</i>				EPPO  Palti et al, 1977.
<i>Colletotrichum gloeosporioides</i> (Teleomorph: <i>Glomerella cingulata</i> )	Class: Ascomycetes Family: Glomerellaceae	Stem and fruit rot  Might be present in avocado seed (NSW Agriculture), however <b>fruit that present symptoms of the disease will not be harvested for seeds.</b>	Yes	Barkai – Golan R., 2002  CABI  PPIS lab, 2009  EPPO  NSW Agriculture  Palti et al, 1977.
<i>Cylindrocladium floridanum</i> Syn: <i>Calonectria kyotensis</i> <i>Cylindrocladium scoparium</i>	Class: Ascomycetes Family: Nectriaceae	A soil fungus, causing root and stem rot. Might attack post harvest fruit, but this has not been reported in Israel. Not considered relevant to seeds.	No	CABI  EPPO  PPIS lab, 2021

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<i>Dactylonectria</i> sp.	Hypocreales: Nectriaceae	Root	No	<a href="https://www.appsnet.org/Publications/potm/pdf/Apr18.pdf">https://www.appsnet.org/Publications/potm/pdf/Apr18.pdf</a>  PPIS lab, 2021
<i>Dematophora necatrix</i> (Teleomorph: <i>Rosellinia necatrix</i> )	Class: Ascomycetes Family: Xylariaceae	Root	No	CABI  PPIS lab, 2009  EPPO  Rotem y., Plati Y., and Ben Yefet Y., 1998.
<i>Dothiorella gregaria</i> (Teleomorph: <i>Botryosphaeria ribis</i> )	Class: Ascomycetes Family: Botryosphaeriaceae	Fruit rot and stem-end rot. The disease might eventually invade the seed (McMillan, 1976) even though no transmission by the seeds has been proven  <b>No such problem has been reported for this species in avocado seeds in Israel and fruit presenting symptoms</b>	Yes	Barkai – Golan R., 2002.  CABI  EPPO  Marais, 2007 <a href="file:///C:/Users/danai/Downloads/Avocado Diseases of Major Importance Worldwide and.pdf">file:///C:/Users/danai/Downloads/Avocado Diseases of Major Importance Worldwide and.pdf</a>

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		<b>will not be harvested for seeds.</b>		McMillan, 1976
<i>Fusarium avenaceum</i>  Syn: <i>Gibberella avenacea</i>	Ascomycetes Family: Nectriaceae	A soil borne fungus. Also known to cause fruit rot in storage. No report of seed transmission in avocado.	No	Adjei et al., 2011  Barkai – Golan R., 2002.  CABI  EPPO  McCully and Thomas, 1977  Palti et al, 1977.
<i>Fusarium equiseti</i>  Syn: <i>Gibberella intricans</i>	Class: Ascomycetes Family: Nectriaceae	Fruit rot in storage. No report of seed transmission in avocado.	No	Adjei et al., 2011  Barkai – Golan R., 2002.  CABI  EPPO  McCully and Thomas, 1977

Scientific name (common name)	Order: Family	Plant part affected	Relevance to avocado seed?	Reference
				Palti et al, 1977.
<i>Fusarium fujikuroi</i>  syn. <i>Fusarium moniliforme</i> <i>Fusarium verticillioides</i> <i>Gibberella fujikuroi</i>	Hyocreales: Nectriaceae	Fruit rot in storage. No report of seed transmission in avocado.	No	Adjei et al., 2011  Barkai – Golan R., 2002  CABI  EPPO  McCully and Thomas, 1977  Palti et al, 1977  PPIS lab, 2021
<i>Fusarium oxysporum</i>	Hyocreales: Nectriaceae	Fruit rot in storage.  No report of seed transmission in avocado.	No	Adjei et al., 2011  Barkai – Golan R., 2002.  McCully and Thomas, 1977  Palti et al, 1977.

Scientific name (common name)	Order: Family	Plant part affected	Relevance to avocado seed?	Reference
				Radwan and Hassan, 2018 <a href="https://jppp.journals.ekb.eg/article_43884_5d5b75290326539ea10a3fe3c1738346.pdf">https://jppp.journals.ekb.eg/article_43884_5d5b75290326539ea10a3fe3c1738346.pdf</a>
<i>Fusarium sambucinum</i>	Hyocreales: Nectriaceae	Fruit rot in storage  No report of seed transmission in avocado.	No	Adjei et al., 2011  Barkai – Golan R., 2002  EPPO  McCully and Thomas, 1977  Palti et al, 1977
<i>Fusarium semitectum</i>  Syn: <i>Fusarium pallidoroseum</i>	Hyocreales: Nectriaceae	Fruit rot in storage  No report of seed transmission in avocado.	No	Adjei et al., 2011  CABI  EPPO  McCully and Thomas, 1977

Scientific name (common name)	Order: Family	Plant part affected	Relevance to avocado seed?	Reference
				Palti et al, 1977.  Radwan and Hassan, 2018 <a href="https://jppp.journals.ekb.eg/article_43884_5d5b75290326539ea10a3fe3c1738346.pdf">https://jppp.journals.ekb.eg/article_43884_5d5b75290326539ea10a3fe3c1738346.pdf</a>  Barkai – Golan R., 2002.
<i>Globisporangium mamillatum</i>  Syn: <i>Pythium mamillatum</i>	Class: Oomycetes Order: Saprolegniales	Roots  Pythium spp. may colonize the avocado seed in a saprophytic manner. No such problem has been reported with this species in avocado seed in Israel.	No	EPPO  PPIS lab, 2021
<i>Lasiodiplodia pseudotheobromae</i>	Order: Botryosphaeriales Family: Botryosphaeriaceae	Post harvest fruit. Seed transmission in avocado has not been reported.	No	CABI  PPIS lab, 2021
<i>Lasiodiplodia theobromae</i>  Syn: <i>Diplodia natalensis</i>	Order: Botryosphaeriales Family: Botryosphaeriaceae	Fruit rot in storage. Cause of stem end rot.	Yes	Barkai – Golan R., 2002.  Garibaldi et al., 2012

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<i>Botryodiplodia theobromae</i>		The disease might eventually invade the seed (McMillan, 1976). <b>No such problem has been reported for this species in avocado seeds in Israel and fruit presenting symptoms will not be harvested for seeds.</b>		McMillan, 1976 <a href="http://www.avocadosource.com/Journals/ITFSC/PROC_1976_PG_66-70.pdf">http://www.avocadosource.com/Journals/ITFSC/PROC_1976_PG_66-70.pdf</a>  Palti et al, 1977  PPIS lab, 2021  Radwan and Hassan, 2018 <a href="https://jppp.journals.ekb.eg/article_43884_5d5b75290326539ea10a3fe3c1738346.pdf">https://jppp.journals.ekb.eg/article_43884_5d5b75290326539ea10a3fe3c1738346.pdf</a>
<i>Macrophomina phaseolina</i>  Syn: <i>Sclerotium bataticola</i> )	Anamorphic fungi	Roots rot, leaves, fruits and stem. Has not been reported in avocado seed.	No	CABI  EPPO  Palti et al, 1977.  PPIS lab, 2009
<i>Neocosmospora solani</i>  Syn:	Hyocreales: Nectriaceae	Fruit rot in storage. No report of seed transmission in avocado.	No	Adjei et al., 2011  Barkai – Golan R., 2002.

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<i>Fusarium solani</i>				Palti et al, 1977  PPIS lab, 2021  Radwan and Hassan, 2018 <a href="https://jppp.journals.ekb.eg/article_43884_5d5b75290326539ea10a3fe3c1738346.pdf">https://jppp.journals.ekb.eg/article_43884_5d5b75290326539ea10a3fe3c1738346.pdf</a>
<i>Neoscytalidium dimidiatum</i>  Syn: <i>Hendersonula toruloidea</i> <i>Nattrassia mangiferae</i> <i>Neofusicoccum mangiferae</i>	Anamorphic fungi	Branch, fruit. Has not been reported in avocado seed.	No	CABI  EPPO  Mackesy and Sullivan, 2015  PPIS lab, 2021
<i>Nigrospora sphaerica</i>  Syn: <i>Khuskia oryzae</i>	Class: Ascomycetes Order: Trichosphaeriales	Fruit rot, damages seed (Korea, 2018). <b>This problem has not been reported in Israel. Fruit presenting</b>	Yes	Barkai – Golan R., 2002  CABI



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		<b>symptoms will not be harvested for seeds.</b>		EPPO  Korea, 2018
<i>Phytophthora cinnamomi</i>	Class: Oomycetes Family: Pythiaceae	Root – regulated Attacks seeds in the soil or in fruit that are in contact with soil. <b>Otherwise not recorded to be seed transmitted. Fruit presenting symptoms will not be harvested for seeds.</b>	Yes	CABI  EPPO  Mircetich and Zentmyr, 1960  NSW Agriculture  Rotem y., Plati Y., and Ben Yefet Y., 1998.
<i>Phytophthora citricola</i>	Class: Oomycetes Family: Pythiaceae	Root and stem base.	No	CABI  EPPO  McCully and Thomas, 1977  Rotem y., Plati Y., and Ben Yefet Y., 1998.
<i>Phytophthora nicotianae</i>	Class: Oomycetes	Root and stem base.	No	McCully and Thomas, 1977

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	Family: Pythiaceae			PPIS lab, 2021
<i>Pythium irregular</i>  Syn: <i>Globisporangium irregular</i>	Class: Oomycetes Order: Saprolegniales	Whole plant, stems, and roots.	No	CABI  PPIS lab, 2009  McCully and Thomas, 1977
<i>Rhizoctonia solani</i>	Class: Basidiomycetes Family: Ceratobasidiaceae	Root rot, attacks seeds in the soil, <b>otherwise not seed transmitted</b>	Yes	Mircetich and Zentmyr, 1960  McCully and Thomas, 1977  Palti et al, 1977.
<i>Rhizopus stolonifer</i> Syn: <i>Rhizopus nigricans</i>	Class: Zygomycetes Family: Mucoraceae	Fruit mold development - A common post harvest pathogen. Not known to be seed transmitted	No	Barkai – Golan R., 2002.  CABI  EPPO  PPIS lab, 2021
<i>Sclerotinia sclerotiorum</i>	Class: Ascomycetes Family: Sclerotiniaceae	Collar rot, fruit rot - rare No problem of seed transmission of this pathogen	No	CABI  EPPO

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		in avocado has been reported in Israel.		Palti et al, 1977.
<i>Sclerotium rolfsii</i>  Syn: <i>Athelia rolfsii</i>	Order: Atheliales Family: Atheliaceae	Seedling blight, fruit rot No problem of seed transmission of this pathogen in avocado has been reported in Israel.	No	CABI  EPPO  PPIS lab, 2021
<i>Trichothecium roseum</i>	Hypocreales  Anamorphic fungi	Fruit rot in storage No problem of seed transmission of this pathogen in avocado has been reported in Israel.	No	Barkai – Golan R., 2002  CABI  EPPO  Palti et al, 1977
<i>Verticillium dahliae</i>	Anamorphic fungi	Wilt, from root to fruit. Might be seed transmitted. <b>Considered a minor problem in Israel. Growers avoid plantation of avocado orchards in areas that were used for potato, where this is a bigger problem.</b>	Yes	CABI  EPPO  Palti et al, 1977  UC IPM, <a href="https://www2.ipm.ucanr.edu/agriculture/avocado/Verticillium-wilt/">https://www2.ipm.ucanr.edu/agriculture/avocado/Verticillium-wilt/</a>

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		<b>Fruit presenting symptoms will not be harvested for seeds.</b>		
Nematodes				
<i>Helicotylenchus sp.</i>	Family: Hoplolaimidae	Root	No	Palti et al, 1977.
<i>Rotylenchus sp.</i>	Family: Hoplolaimidae Tylenchida: Tylenchoidea	Root	No	Palti et al, 1977.
<i>Xiphinema brevicolle</i>	Family: Xiphinematidae	Root	No	Palti et al, 1977.
<i>Xiphinema mediterraneum</i>	Family: Xiphinematidae Dorylaimoidea: Longidoridae	Root	No	Palti et al, 1977.
Viroid				
Avocado sunblotch viroid (ASBV (Sunblotch viroid)	Family: Avsunviroidae	Leaves, twigs and fruit. Avocado sunblotch Viroid has been reported in avocado in Israel and mother plants are	Yes	Marais, 2007  NSW Agriculture  Palti et al, 1977.

Scientific name (common name)	Order: Family	Plant part affected	Relevance to avocado seed?	Reference
		therefore monitored and sampled for this viroid. <b>Fruit presenting symptoms will not be harvested for seeds.</b>		

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