

Recommended Codes for Pest Organisms in Vegetable & Selected Horticultural Crops

Adopted by the ISF Expert Group on Disease Resistance Terminology

Version: May 2026 - Subject to periodic review

CROPS

<u><i>Abelmoschus esculentus</i></u> (Okra)
<u><i>Allium ampeloprasum</i></u> (Leek) -
<u><i>Allium cepa</i></u> (Onion) -
<u><i>Apium graveolens</i></u> (Celery and Celeriac)
<u><i>Asparagus officinalis</i></u> (<i>Asparagus</i>)
<u><i>Benincasa hispida</i></u> (Wax gourd)
<u><i>Beta vulgaris</i></u> (Table beet and Swiss chard)
<u><i>Brassicacae</i></u> (Cabbage, Broccoli, Cauliflower, Chinese cabbage...)
<u><i>Capsicum annuum</i></u> (Pepper)
<u><i>Citrullus lanatus</i></u> (Watermelon)
<u><i>Cucumis melo</i></u> (Melon)
<u><i>Cucumis sativus</i></u> (Cucumber)
<u><i>Cucurbita pepo</i></u> , <i>C. maxima</i> , <i>C. moschata</i> (Squash and pumpkin)
<u><i>Daucus carota var. sativa</i></u> (Carrot)
<u><i>Diplotaxis tenuifolia</i></u> (Wild rocket)
<u><i>Eruca vesicaria subsp. sativa</i></u> (Arugula)
<u><i>Foeniculum vulgare</i></u> (Fennel)
<u><i>Fragaria spp.</i></u> (Strawberry)
<u><i>Lactuca sativa</i></u> (Lettuce)
<u><i>Lagenaria siceraria</i></u> (Bottle gourd)
<u><i>Luffa acutangula</i></u> (Ridge gourd)
<u><i>Luffa cylindrica</i></u> (Sponge gourd)
<u><i>Momordica charantia</i></u> (Bitter melon)
<u><i>Ocimum basilicum</i></u> (Basil)
<u><i>Petroselinum crispum</i></u> (Parsley)
<u><i>Phaseolus vulgaris</i></u> (Dwarf and climbing French bean)
<u><i>Pisum sativum</i></u> (Garden pea)
<u><i>Raphanus sativus</i></u> (Radish)
<u><i>Rubus spp.</i></u> (<i>Brambles</i>)
<u><i>Solanum integrifolium</i></u> (Eggplant/Aubergine rootstock)
<u><i>Solanum lycopersicum</i></u> (Ex <i>Lycopersicon esculentum</i>) (Tomato)
<u><i>Solanum melongena</i></u> (Eggplant/Aubergine)

Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026

<u><i>Solanum torvum</i></u> (Eggplant/Aubergine rootstock)
<u><i>Spinacia oleracea</i></u> (Spinach)
<u><i>Valerianella locusta</i></u> (Corn salad)
<u><i>Zea mays</i></u> (Sweet corn)

Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026

1. <i>Abelmoschus esculentus</i> (Okra)		
Scientific name	English common name	Code
Viruses		
¹ Bhendi yellow vein mosaic virus (now <i>Begomovirus abelmoschusomanense</i>) /2032	Bhendi yellow vein mosaic virus	BYVMV
Insects		
<i>Amarasca biguttula</i>	Leaf hopper	Ab

2. <i>Allium - A. ampeloprasum</i> (Leek)		
Scientific name	English common name	Code
Viruses		
Leek yellow stripe virus (now <i>Potyvirus ampeloprasii</i>) /2032	Leek yellow stripe virus	LYSV
Iris yellow spot virus (now <i>Orthotospovirus ridimaculafflavi</i>) / 2032	Iris yellow spot virus	IYSV
Bacteria		
<i>Pseudomonas syringae</i> pv. <i>porri</i>	Pseudomonas leek blight	Psp
Fungi/Oomycetes		
<i>Alternaria porri</i>	Purple blotch	Ap
<i>Puccinia allii</i>	Rust	Pa
<i>Puccinia porri</i>	Rust	Pup
<i>Peronospora destructor</i>	Downy mildew	Pd
<i>Phytophthora nicotianae</i>	Phytophthora neck and bulb rot	Pn
<i>Phytophthora porri</i>	White tip of leek	Php
Insects		
<i>Thrips tabaci</i>	Onion thrips	Tt

¹ **End of the transition period for the name change. The transition from one step to the next is three years to allow companies and their customers worldwide to become accustomed to the change.**

Recommended Codes for Pest Organisms in Vegetable &
Selected Horticultural Crops
May 2026

3. <i>Allium - A. cepa</i> (Onion)		
Scientific name	English common name	Code
Viruses		
Leek yellow stripe virus (now <i>Potyvirus ampeloprasii</i>) /2032	Leek yellow stripe virus	LYSV
Iris yellow spot virus (now <i>Orthospovirus ridimaculafflavi</i>) / 2032	Iris yellow spot virus	IYSV
Bacteria		
<i>Pseudomonas syringae</i> pv. <i>porri</i>	Pseudomonas leek blight	Psp
Fungi/Oomycetes		
<i>Alternaria porri</i>	Purple blotch	Ap
<i>Botrytis allii</i>	Botrytis neck rot	Ba
<i>Botryotinia squamosa</i>	Botrytis leaf blight	Bs
<i>Colletotrichum gloeosporioides</i>	Twister	Cg
<i>Fusarium oxysporum</i> f.sp. <i>cepae</i>	Basal rot	Foc
<i>Peronospora destructor</i>	Downy mildew	Pd
<i>Phytophthora nicotianae</i>	Phytophthora neck and bulb rot	Pn
<i>Phytophthora porri</i>	White tip of leek	Php
<i>Setophoma terrestris</i>	Pink root	St
<i>Stemphylium vesicarium</i>	Stemphylium leaf blight	Sv
<i>Stromatinia cepivora</i>	White rot	Sc
Insects		
<i>Thrips tabaci</i>	Onion thrips	Tt
Nematodes		
<i>Ditylenchus dipsaci</i>	Stem and bulb nematode	Dd

4. <i>Apium graveolens</i> (Celery and Celeriac)		
Scientific name	English common name	Code
Viruses		
Celery mosaic virus (now <i>Potyvirus apiumtessellati</i>) /2032	Celery mosaic virus	CeMV
Celery latent virus (now <i>Celavirus apii</i>)/2032	Celery latent virus	CeLV
Fungi/Oomycetes		
<i>Fusarium oxysporum</i> f.sp. <i>apii</i>	Fusarium yellows and wilt	Foa
<i>Septoria apiicola</i>	Late blight	Sa

5. <i>Asparagus officinalis</i> (Asparagus)		
Scientific name	English common name	Code
Viruses		
Asparagus virus 1 (now <i>Potyvirus asparagi</i>) /2032	Asparagus virus	AV-1
Asparagus virus 2 (AV-2) (now <i>Ilarvirus AV2</i>) /2032	Asparagus virus 2 (AV-2)	AV-2
Fungi/Oomycetes		
<i>Phytophthora asparagi</i>	Root rot disease	Pha
<i>Phytophthora megasperma</i>	Root rot disease	Phm

**Recommended Codes for Pest Organisms in Vegetable &
Selected Horticultural Crops
May 2026**

<i>Stemphylium vesicarium</i>	Purple spot	Sv
<i>Phomopsis asparagi</i>	Stem blight	Pa
<i>Fusarium oxysporum</i> f.sp. <i>asparagi</i>	Crown and root rot	Foa
<i>Fusarium redolens</i>	Crown and root rot	Fre
<i>Fusarium culmorum</i>	Stem rot	Fcu
<i>Fusarium proliferatum</i>	Crown and root rot	Fpr
<i>Puccinia asparagii</i>	Asparagus rust	Pua
<i>Botrytis cinerea</i>	Botrytis blight	Bc
Insects		
<i>Crioceris asparagi</i>	Common Asparagus beetle	Ca

6. Benincasa hispida (Wax gourd)		
Scientific name	English common name	Code
Viruses		
Cucurbit aphid-borne yellows virus (now <i>Polerovirus CABYV</i>) /2032	Cucurbit aphid-borne yellows virus	CABYV
Cucumber green mottle mosaic virus (now <i>Tobamovirus viridimaculae</i>) /2032	Cucumber green mottle mosaic virus	CGMMV
Cucumber mosaic virus (now <i>Cucumovirus</i> CMV) /2032	Cucumber mosaic virus	CMV
Papaya ringspot virus (now <i>Potyvirus papayanuli</i>) /2032	Papaya ringspot virus	PRSV
Tomato leaf curl New Delhi virus (now <i>Begomovirus solanumdelhiense</i>) /2032	Tomato leaf curl New Delhi virus	ToLCNDV
Watermelon silver mottle virus (now <i>Orthotospovirus citrullomaculosi</i>) /2032	Watermelon silver mottle virus	WSMoV
Zucchini yellow mosaic virus (now <i>Potyvirus cucurbitaflaviteselati</i>) /2032	Zucchini yellow mosaic virus	ZYMV
Fungi/Oomycetes		
<i>Fusarium oxysporum</i> f.sp. <i>lagenariae</i>	Fusarium wilt	Fol
<i>Fusarium oxysporum</i> f.sp. <i>niveum</i>	Fusarium wilt	Fon
<i>Fusarium oxysporum</i> f.sp. <i>radicis-cucumerinum</i>	Root and stem rot	For

7. Beta vulgaris (Table beet and Swiss chard)		
Scientific name	English common name	Code
Viruses		
Beet curly top virus (now <i>Curtovirus betae</i>) /2032	Beet curly top virus	BCTV
Beet necrotic yellow vein virus (now <i>Benyvirus necrobetae</i>) /2032	Rhizomania (Beet necrotic yellow vein virus)	BNYVV
Bacteria		
<i>Pseudomonas syringae</i> pv. <i>aptata</i>	Bacterial blight	Psa
<i>Streptomyces scabies</i>	Common scab	Ss
Fungi/Oomycetes		
<i>Cercospora beticola</i>	Leaf spot	Cb
<i>Colletotrichum dematium</i>	Anthraxnose	Cd
<i>Fusarium oxysporum</i> f.sp. <i>betae</i>	Fusarium yellows	Fob
<i>Pythium aphanidermatum</i>	Pythium root rot	Pa
² <i>Neocamarosporium betae</i>	Phoma root rot, Leaf spot	Nb

**Recommended Codes for Pest Organisms in Vegetable &
Selected Horticultural Crops
May 2026**

<i>Peronospora schachtii</i>	Downy mildew	Ps
<i>Ramularia beticola</i>	Ramularia leaf spot	Ra
<i>Rhizoctonia solani</i>	Rhizoctonia root and crown rot	Rs
<i>Verticillium albo-atrum</i>	Verticillium wilt	Va
<i>Verticillium dahliae</i>	Verticillium wilt	Vd

8. Brassicas (Cabbage, Broccoli, Cauliflower, Brussels sprouts, Chinese cabbage, Pak Choi, Turnip)		
Scientific name	English common name	Code
Viruses		
Cauliflower mosaic virus (now <i>Caulimovirus tessellobrassicae</i>) /2032	Cauliflower mosaic virus	CaMV
Turnip mosaic virus (now <i>Potyvirus rapae</i>) /2032	Turnip mosaic virus	TuMV
Bacteria		
<i>Pseudomonas syringae</i> pv. <i>maculicola</i>	Bacterial leaf spot, Peppery leaf spot	Psm
<i>Xanthomonas campestris</i> pv. <i>campestris</i>	Black rot	Xcc
<i>Pectobacterium carotovorum</i> subsp. <i>carotovorum</i>	Bacterial soft rot	Pcc
Fungi/Oomycetes		
<i>Albugo candida</i>	White rust	Ac
<i>Alternaria brassicae</i>	Black spot	Abe
<i>Alternaria brassicicola</i>	Black spot	Aba
<i>Erysiphe cruciferarum</i>	Powdery mildew	Ec
<i>Fusarium oxysporum</i> f.sp. <i>conglutinans</i>	Fusarium yellows	Foc
<i>Fusarium oxysporum</i> f.sp. <i>rapae</i>	Fusarium yellows	Foa
³ <i>Hyaloperonospora brassicae</i>	Downy mildew	Hb
<i>Mycosphaerella brassicicola</i>	Ring spot	Mb
⁴ <i>Leptosphaeria maculans</i>	Black leg	Lm
<i>Plasmodiophora brassicae</i>	Clubroot	Pb
<i>Pyrenopeziza brassicae</i>	Light Leaf Spot	Pyb
<i>Verticillium albo-atrum</i>	Verticillium wilt	Va
<i>Verticillium dahliae</i>	Verticillium wilt	Vd
<i>Verticillium longisporum</i>	Verticillium wilt	Vl
Insects		
<i>Brevicoryne brassicae</i>	Cabbage aphid	Bb
<i>Plutella xylostella</i>	Diamondback moth	Px
<i>Thrips tabaci</i>	Thrips	Tt

**Recommended Codes for Pest Organisms in Vegetable &
Selected Horticultural Crops
May 2026**

² Both old names *Pleospora betae* and *Pleospora bjoerlingii* are still in use. The current name has changed from *Phoma betae* to *Neocamarosporium betae*

³ *Hyaloperonospora parasitica* subs. *brassicae* is currently and widely known as *H. brassicae*. *H. parasitica* is a pathogen with a host range different to cultivated Brassicas.

⁴ Anamorph: *Phoma lingam*

9. <i>Capsicum annuum</i> (Pepper)		
Scientific name	English common name	Code
Viruses		
Chilli veinal mottle virus (now <i>Potyvirus capsivenamaculae</i>) /2032	Chilli veinal mottle virus	ChiVMV
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>) /2032	Cucumber mosaic virus	CMV
Paprika mild mottle virus (now <i>Tobamovirus paprika</i>) /2032	Paprika mild mottle virus	PaMMV
Pepper mild mottle virus (now <i>Tobamovirus capsica</i>) /2032	Pepper mild mottle virus	PMMoV
Pepper mottle virus (now <i>Potyvirus capsimaculae</i>) /2032	Pepper mottle virus	PepMoV
Pepper yellow mosaic virus (now <i>Potyvirus capsiflavi</i>) /2032	Pepper yellow mosaic virus	PepYMV
Potato virus Y (now <i>Potyvirus yituberosi</i>) /2032	Potato virus Y	PVY
Tomato brown rugose fruit virus (now <i>Tobamovirus fructirugosum</i>) /2032	Tomato brown rugose fruit virus	ToBRFV
Tobacco etch virus (now <i>Potyvirus nicotianainsculptentis</i>) /2032	Tobacco etch virus	TEV
Tobacco mild green mosaic virus (now <i>Tobamovirus mititessellati</i>) /2032	Tobacco mild green mosaic virus	TMGMV
Tobacco mosaic virus (now <i>Tobamovirus tabaci</i>) /2032	Tobacco mosaic virus	TMV
Tomato mosaic virus (now <i>Tobamovirus tomatotessellati</i>) /2032	Tomato mosaic virus	ToMV
Tomato spotted wilt virus (now <i>Orthospovirus tomatomaculae</i>) /2032	Tomato spotted wilt virus	TSWV
Bacteria		
⁵ <i>Ralstonia solanacearum</i>	Bacterial wilt	Rs
⁶ <i>Xanthomonas spp</i>	Bacterial spot	X spp
Fungi/Oomycetes		
<i>Colletotrichum acutatum</i>	Anthracnose	Ca
<i>Colletotrichum truncatum</i>	Anthracnose	Ct
<i>Colletotrichum gloeosporioides</i>	Anthracnose	Cg
<i>Fusarium oxysporum</i> f.sp. <i>capsici</i>	Fusarium wilt	Foc
⁷ <i>Leveillula taurica</i>	Powdery mildew	Lt
<i>Phytophthora capsici</i>	Phytophthora crown and root rot	Pc
Nematodes		
<i>Meloidogyne arenaria</i>	Root-knot	Ma
<i>Meloidogyne incognita</i>	Root-knot	Mi
<i>Meloidogyne javanica</i>	Root-knot	Mj

**Recommended Codes for Pest Organisms in Vegetable &
Selected Horticultural Crops
May 2026**

10. <i>Citrullus lanatus</i> (Watermelon)		
Scientific name	English common name	Code
Viruses		
Cucumber vein yellowing virus (now <i>Ipomovirus cucumisvenae</i>) /2032	Cucumber vein yellowing virus	CVYV
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>) /2032	Cucumber mosaic virus	CMV
Papaya ringspot virus (now <i>Potyvirus papayanuli</i>) /2032	Papaya ringspot virus	PRSV
Squash leaf curl virus (now <i>Begomovirus cucurbitapeponis</i>) /2032	Squash leaf curl virus	SLCV
Watermelon mosaic virus (now <i>Potyvirus citrulli</i>) /2032	Watermelon mosaic virus	WMV
Zucchini yellow mosaic virus (now <i>Potyvirus cucurbitaflaviteselati</i>) /2032	Zucchini yellow mosaic virus	ZYMV
Fungi/Oomycetes		
<i>Colletotrichum orbiculare</i>	Anthraxnose	Co
<i>Fusarium oxysporum</i> f.sp. <i>niveum</i>	Fusarium wilt	Fon
<i>Podosphaera xanthii</i>	Powdery mildew	Px

⁵ *Ralstonia solanacearum* species complex comprises of three different species see Prior *et al.*, 2016.

⁶ Taxonomic studies on the bacteria causing bacterial spot on tomato and pepper have shown there are four different species (*Xanthomonas euvesicatoria*, *X. vesicatoria*, *X. perforans* and *X. gardneri*) that cannot be differentiated by pathogenicity as they all cause very similar symptoms. As resistance in tomato and pepper to bacterial spot is based on races that go across these species we proposed to not specify the species but to keep the general name.-

⁷ anamorph: *Oidiopsis sicula*

11. <i>Cucumis melo</i> (Melon)		
Scientific name	English common name	Code
Viruses		
Cucumber green mottle mosaic virus (now <i>Tobamovirus viridimaculae</i>) /2032	Cucumber green mottle mosaic virus	CGMMV
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>) /2032	Cucumber mosaic virus	CMV
Cucumber vein yellowing virus (now <i>Ipomovirus cucumisvenae</i>) /2032	Cucumber vein yellowing virus	CVYV
Cucurbit yellow stunting disorder virus (now <i>Crinivirus cucurbitae</i>) /2032	Cucurbit yellow stunting disorder virus	CYSDV
Melon necrotic spot virus (now <i>Gammacarmovirus melonis</i>) /2032	Melon necrotic spot virus	MNSV
Moroccan watermelon mosaic virus (now <i>Potyvirus citrullimoroccense</i>) /2032	Moroccan watermelon mosaic virus	MWMV
Papaya ringspot virus (now <i>Potyvirus papayanuli</i>) /2032	Papaya ringspot virus	PRSV
Squash leaf curl virus (now <i>Begomovirus cucurbitapeponis</i>) /2032	Squash leaf curl virus	SLCV
Squash mosaic virus (now <i>Comovirus cucurbitae</i>) /2032	Squash mosaic virus	SqMV
Tomato leaf curl New Delhi virus (now <i>Begomovirus solanumdelhiense</i>) /2032	Tomato leaf curl New Delhi virus	ToLCNDV
Watermelon mosaic virus (now <i>Potyvirus citrulli</i>) /2032	Watermelon mosaic virus	WMV
Zucchini yellow mosaic virus	Zucchini yellow mosaic virus	ZYMV

**Recommended Codes for Pest Organisms in Vegetable &
Selected Horticultural Crops
May 2026**

(now <i>Potyvirus cucurbitaflaviteselati</i>)/2032		
Fungi/Oomycetes		
<i>Golovinomyces cichoracearum</i>	Powdery mildew	Gc
<i>Fusarium oxysporum</i> f.sp. <i>melonis</i>	Fusarium wilt	Fom
<i>Pseudoperonospora cubensis</i>	Downy mildew	Pcu
<i>Podosphaera xanthii</i>	Powdery mildew	Px
Insects		
<i>Aphis gossypii</i>	Cotton aphid	Ag

12. Cucumis sativus (Cucumber)		
Scientific name	English common name	Code
Viruses		
Beet pseudoyellows virus (now <i>Crinivirus pseudobetae</i>)/2032	Beet pseudoyellows virus	BPYV
Cucurbit aphid-borne yellows virus (now <i>Polerovirus CABYV</i>)/2032	Cucurbit aphid-borne yellows virus	CABYV
Cucumber green mottle mosaic virus (now <i>Tobamovirus viridimaculae</i>)/2032	Cucumber green mottle mosaic virus	CGMMV
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>)/2032	Cucumber mosaic virus	CMV
Cucumber vein yellowing virus (now <i>Ipomovirus cucumisvenae</i>)/2032	Cucumber vein yellowing virus	CVYV
Cucurbit yellow stunting disorder virus (now <i>Crinivirus cucurbitae</i>)/2032	Cucurbit yellow stunting disorder virus	CYSDV
Kyuri green mottle mosaic virus (now <i>Tobamovirus kyuri</i>)/2032	Kyuri green mottle virus	KGMMV
Papaya ringspot virus (now <i>Potyvirus papayanuli</i>)/2032	Papaya ringspot virus	PRSV
Squash leaf curl virus (now <i>Begomovirus cucurbitapeponis</i>)/2032	Squash leaf curl virus	SLCV
Tomato leaf curl New Delhi virus (now <i>Begomovirus solanumdelhiense</i>)/2032	Tomato leaf curl New Delhi virus	ToLCNDV
Watermelon mosaic virus (now <i>Potyvirus citrulli</i>)/2032	Watermelon mosaic virus	WMV
Zucchini yellow mosaic virus (now <i>Potyvirus cucurbitaflaviteselati</i>)/2032	Zucchini yellow mosaic virus	ZYMV
Bacteria		
<i>Erwinia tracheiphila</i>	Bacterial wilt	Et
<i>Pseudomonas syringae</i> pv. <i>lachrymans</i>	Angular leaf spot	PsI
Fungi/Oomycetes		
<i>Cladosporium cucumerinum</i>	Scab and gummosis	Ccu
<i>Colletotrichum orbiculare</i>	Anthracnose	Co
<i>Corynespora cassicola</i>	Corynespora blight and target spot	Cca
<i>Golovinomyces cichoracearum</i>	Powdery mildew	Gc
<i>Fusarium oxysporum</i> f.sp. <i>radicis-cucumerinum</i>	Fusarium crown and root rot	For
<i>Pythium aphanidermatum</i>	Damping off, Pythium fruit rot (cottony leak)	Pa
<i>Pseudoperonospora cubensis</i>	Downy mildew	Pcu
<i>Podosphaera xanthii</i>	Powdery mildew	Px

Recommended Codes for Pest Organisms in Vegetable &
Selected Horticultural Crops
May 2026

13. Cucurbita pepo, C.maxima, C. moschata (Squash and pumpkin)		
Scientific name	English common name	Code
Viruses		
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>)/2032	Cucumber mosaic virus	CMV
Luffa yellow mosaic virus (now <i>Begomovirus luffae</i>) /2032	Luffa yellow mosaic virus	LYMV
Papaya ringspot virus (now <i>Potyvirus papayanuli</i>) /2032	Papaya ringspot virus	PRSV
Squash leaf curl virus (now <i>Begomovirus cucurbitachinaense</i>) /2032	Squash leaf curl virus	SLCV
Squash mosaic virus (now <i>Comovirus cucurbitae</i>) /2032	Squash mosaic virus	SqMV
Tomato leaf curl New Delhi virus (now <i>Begomovirus solanumdelhiense</i>)/2032	Tomato leaf curl New Delhi virus	ToLCNDV
Watermelon mosaic virus (now <i>Potyvirus citrulli</i>) /2032	Watermelon mosaic virus	WMV
Moroccan watermelon mosaic virus (now <i>Potyvirus citrullimoroccense</i>) /2032	Moroccan watermelon mosaic virus	MWMV
Zucchini yellow mosaic virus (now <i>Potyvirus cucurbitaflaviteselati</i>) /2032	Zucchini yellow mosaic virus	ZYMV
Fungi/Oomycetes		
<i>Golovinomyces cichoracearum</i>	Powdery mildew	Gc
<i>Fusarium oxysporum</i> f.sp. <i>cucumerinum</i>	Fusarium wilt	Foc
<i>Fusarium oxysporum</i> f.sp. <i>lagenariae</i>	Fusarium wilt	Fol
<i>Fusarium oxysporum</i> f.sp. <i>melonis</i>	Fusarium wilt	Fom
<i>Fusarium oxysporum</i> f.sp. <i>niveum</i>	Fusarium wilt	Fon
<i>Fusarium oxysporum</i> f.sp. <i>radicis-cucumerinum</i>	Root and stem rot	For
<i>Fusarium solani</i> f.sp. <i>cucurbitae</i>	Crown and root rot	Fsc
<i>Diaporthe sclerotioides</i>	Black root rot	Ds
<i>Pythium aphanidermatum</i>	Damping off, Pythium fruit rot (cottony leak)	Pa
<i>Phytophthora capsici</i>	Phytophthora crown and root rot	Pc
<i>Pseudoperonospora cubensis</i>	Downy mildew	Pcu
<i>Podosphaera xanthii</i>	Powdery mildew	Px

International Seed Federation

Recommended Codes for Pest Organisms in Vegetable &
Selected Horticultural Crops
May 2026

14. <i>Daucus carota</i> var. <i>sativa</i> (Carrot)		
Scientific name	English common name	Code
Viruses		
Carrot red leaf virus (now <i>Polerovirus CTRLV</i>) /2032	Carrot red leaf virus	CtRLV
Carrot mottle virus (now <i>Umbravirus maculacarotae</i>) /2032	Carrot mottle virus	CMoV
Bacteria		
<i>Xanthomonas hortorum</i> pv. <i>carotae</i>	Bacterial leaf blight	Xhc
<i>Candidatus Liberibacter solanacearum</i>	Carrot yellows	Cls
Fungi/Oomycetes		
<i>Alternaria dauci</i>	Alternaria leaf blight	Ad
<i>Alternaria radicina</i>	Black rot	Ar
<i>Cercospora carotae</i>	Cercospora leaf blight	Cc
<i>Erysiphe heraclei</i>	Powdery mildew	Eh
<i>Pythium sulcatum</i>	Cavity spot	Ps
<i>Globisporangium ultimum</i>	Cavity spot	Gu
<i>Globisporangium violae</i>	Cavity spot	Gv
<i>Rhexocercosporidium carotae</i>	Rhexocercosporidium root rot	Rc
<i>Mycocentrospora acerina</i>	Licorice rot	Ma
<i>Phytophthora</i> spp.	Ring rot	Ph
Insects		
<i>Psila rosae</i>	Carrot fly	Pr
Nematodes		
<i>Meloidogyne incognita</i>	Root-knot	Mi
<i>Meloidogyne javanica</i>	Root-knot	Mj
<i>Meloidogyne hapla</i>	Northern root-knot nematode	Mh
Phytoplasmas		
<i>Candidatus Phytoplasma asteris</i>	Aster yellows	Ay

15. <i>Diplotaxis tenuifolia</i> (Wild rocket)		
Scientific name	English common name	Code
Fungi/Oomycetes		
<i>Hyaloperonospora parasitica</i>	Downy mildew	Hp

16. <i>Eruca vesicaria</i> subsp. <i>sativa</i> (Arugula)		
Scientific name	English common name	Code
Fungi/Oomycetes		
<i>Hyaloperonospora parasitica</i>	Downy mildew	Hp

17. <i>Foeniculum vulgare</i> (Fennel)		
Scientific name	English common name	Code
Fungi/Oomycetes		
<i>Ramularia foeniculi</i>	Ramularia blight	Rf
<i>Sclerotinia sclerotiorum</i>	White mold	Ss

Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026

18. <i>Fragaria</i> spp. (Strawberry)		
Scientific name	English common name	Code
Bacteria		
<i>Xanthomonas fragariae</i>	Angular leaf spot	Xf
Fungi/Oomycetes		
<i>Colletotrichum acutatum</i>	Blackspot/anthracnose	Ca
<i>Colletotrichum gloeosporioides</i>	Blackspot/anthracnose	Cg
<i>Colletotrichum fragariae</i>	Blackspot/anthracnose	Cf
<i>Phytophthora cactorum</i>	Crown rot	Pc
<i>Phytophthora fragariae</i>	Red stele rot	Pf
<i>Botrytis cinerea</i>	Grey mould	Bc
<i>Neopestalotiopsis</i> spp.	Neopestalotiopsis fruit rot	Ns
<i>Podosphaera aphanis</i>	Powdery mildew	Pa
<i>Verticillium dahliae</i>	Verticillium wilt	Vd
<i>Macrophomina phaseolina</i>	Charcoal rot	Mp
<i>Fusarium oxysporum</i> f.sp. <i>fragariae</i>	Fusarium wilt	Fof
Viruses		
Strawberry crinkle virus (now <i>Cytorhabdovirus fragariarugosus</i>) /2032	Strawberry crinkle virus	SCV
Strawberry mild yellow-edge virus (now <i>Potexvirus fragariae</i>) /2032	Strawberry mild yellow-edge virus	SMYEV
Strawberry mottle virus (now <i>Sadwavirus fragariae</i>) /2032	Strawberry mottle virus	SMoV
Strawberry vein banding virus (now <i>Caulimovirus venafragariae</i>) /2032	Strawberry vein banding virus	SVBV
Strawberry pallidosis associated virus (now <i>Crinivirus palidofragariae</i>) /2032	Strawberry pallidosis associated virus	SPaV
Strawberry polerovirus-1 (now <i>Polerovirus SPV</i>) /2032	Strawberry polerovirus-1	SPV-1
Strawberry crinivirus 3	Strawberry crinivirus 3	SCrV-3
Tomato ringspot virus (now <i>Nepovirus lycopersici</i>) /2032	Tomato ringspot virus	ToRSV

19. <i>Lactuca sativa</i> (Lettuce)		
Scientific name	English common name	Code
Viruses		
Beet western yellows virus (now <i>Polerovirus BWYV</i>) /2032	Beet western yellows virus	BWYV
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>) /2032	Cucumber mosaic virus	CMV
Impatiens necrotic spot virus (now <i>Orthospovirus impatiensnecromaculae</i>) /2032	Impatiens necrotic spot virus	INSV
Lettuce necrotic stunt virus (now <i>Moroccan pepper virus</i>) / 2027 (now <i>Tombusvirus moroccoense</i>) /2032	Moroccan pepper virus	LNSV (now MPV)
Lettuce mosaic virus (now <i>Potyvirus lactucae</i>) /2032	Lettuce mosaic virus	LMV
Mirafiori lettuce big-vein virus (now <i>Ophiovirus mirafioriense</i>) /2032	Mirafiori lettuce big-vein virus	MLBVV
Lettuce Big Vein-associated virus (now <i>Varicosavirus lactucae</i>) /2032	Lettuce Big Vein-associated virus	LBVaV
Tomato bushy stunt virus (now <i>Tombusvirus lycopersici</i>) /2032	Tomato bushy stunt virus	TBSV
Tomato spotted wilt virus (now <i>Orthospovirus tomatomaculae</i>) /2032	Tomato spotted wilt virus	TSWV
Bacteria		
<i>Pseudomonas cichorii</i>	Bacterial rot	Pc

**Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026**

⁸ <i>Rhizorhapis suberifaciens</i>	Corky root	Rs
<i>Xanthomonas axonopodis</i> pv. <i>vitians</i>	Bacterial spot	Xav
Fungi/Oomycetes		
<i>Bremia lactucae</i>	Downy mildew	Bl
<i>Fusarium oxysporum</i> f.sp. <i>lactucae</i>	Fusarium wilt	Fol
<i>Microdochium panattonianum</i>	Anthraxnose	Mpa
Insects		
<i>Macrosiphum euphorbiae</i>	Potato aphid	Me
<i>Myzus persicae</i>	Green peach aphid	Mpe
<i>Nasonovia ribisnigri</i>	Currant-lettuce leaf aphid	Nr
<i>Pemphigus bursarius</i>	Lettuce root aphid	Pb

20. <i>Lagenaria siceraria</i> (Bottle gourd)		
Scientific name	English common name	Code
Viruses		
Cucumber green mottle mosaic virus (now <i>Tobamovirus viridimaculae</i>) /2032	Cucumber green mottle mosaic virus	CGMMV
Fungi/Oomycetes		
<i>Fusarium oxysporum</i> f.sp. <i>lagenariae</i>	Fusarium wilt	Fol
<i>Fusarium oxysporum</i> f.sp. <i>niveum</i>	Fusarium wilt	Fon
<i>Fusarium oxysporum</i> f.sp. <i>radicis-cucumerinum</i>	Root and stem rot	For

21. <i>Luffa acutangula</i> (Ridge gourd)		
Scientific name	English common name	Code
Viruses		
Tomato leaf curl New Delhi virus (now <i>Begomovirus solanumdelhiense</i>) /2032	Tomato leaf curl New Delhi virus	ToLCNDV
Bacteria		
⁹ <i>Ralstonia solanacearum</i>	Bacterial wilt	Rs

22. <i>Luffa cylindrica</i> (Sponge gourd)		
Scientific name	English common name	Code
Fungi/Oomycetes		
<i>Fusarium oxysporum</i> f. sp. <i>luffae</i>	Fusarium wilt	Fol
<i>Pseudoperonospora cubensis</i>	Downy mildew	Pc

**Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026**

Bacteria		
¹⁰ <i>Ralstonia solanacearum</i>	Bacterial wilt	Rs

⁸ A review article in 2015 uses the new genus name *Rhizorhapis* based on work published in 2014 on the reclassification of the pathogen causing lettuce corky root (<https://www.microbiologyresearch.org/content/journal/ijsem/10.1099/ijms.0.058909-0>, <http://apsjournals.apsnet.org/doi/pdf/10.1094/PDIS-09-14-0953-FE>).

⁹ *Ralstonia solanacearum* species complex comprises of three different species see Prior et al., 2016.

23. Momordica charantia (Bitter gourd)		
Scientific name	English common name	Code
Viruses		
Cucurbit aphid-borne yellows virus (now <i>Polerovirus CABYV</i>) /2032	Cucurbit aphid-borne yellows virus	CABYV
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>) /2032	Cucumber mosaic virus	CMV
Papaya ringspot virus (now <i>Potyvirus papayanuli</i>) /2032	Papaya ringspot virus	PRSV
Tomato leaf curl New Delhi virus (now <i>Begomovirus solanumdelhiense</i>) /2032	Tomato leaf curl New Delhi virus	ToLCNDV
Zucchini yellow mosaic virus (now <i>Potyvirus cucurbitaflaviteselati</i>) /2032	Zucchini yellow mosaic virus	ZYMV
Fungi/Oomycetes		
<i>Podosphaera xanthii</i>	Powdery mildew	Px

24. Ocimum basilicum (Basil)		
Scientific name	English common name	Code
Fungi/Oomycetes		
<i>Fusarium oxysporum f.sp. basilici</i>	Fusarium wilt	Fob
<i>Peronospora belbahrii</i>	Downy mildew	Pb

25. Petroselinum crispum (Parsley)		
Scientific name	English common name	Code
Fungi/Oomycetes		
<i>Plasmopara petroselini</i>	Downy mildew	Pp
<i>Septoria petroselini</i>	Septoria blight	Sp

26. Phaseolus vulgaris (Dwarf and climbing French bean)		
Scientific name	English common name	Code
Viruses		
Bean common mosaic virus (now <i>Potyvirus phaseovulgaris</i>) /2032	Bean common mosaic virus	BCMV
Bean common mosaic necrosis virus (now <i>Potyvirus phaseoli</i>) /2032	Bean common mosaic necrosis virus	BCMNV
Beet curly top virus (now <i>Curtovirus betae</i>) /2032	Beet curly top virus	BCTV
Bean golden mosaic virus (now <i>Begomovirus costai</i>) /2032	Bean golden mosaic virus	BGMV

**Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026**

Bean golden yellow mosaic virus (now <i>Begomovirus birdi</i>) /2032	Bean golden yellow mosaic virus	BGYMV
Bean yellow disorder virus (now <i>Crinivirus flavibetae</i>) /2032	Bean yellow disorder virus	BnYDV
Bean yellow mosaic virus (now <i>Potyvirus phaseoliteum</i>) /2032	Bean yellow mosaic virus	BYMV
Southern bean mosaic virus (now <i>Sobemovirus SBMV</i>) /2032	Southern bean mosaic virus	SBMV
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>) /2032	Cucumber mosaic virus	CMV
Tomato yellow leaf curl virus (now <i>Begomovirus coheni</i>) /2032	Tomato yellow leaf curl virus	TYLCV ¹⁴
Bacteria		
<i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i>	Halo blight	Psp
<i>Pseudomonas syringae</i> pv. <i>syringae</i>	Bacterial brown spot	Pss
¹¹ <i>Xanthomonas axonopodis</i> pv. <i>phaseoli</i>	Common or fuscous blight	Xap
Fungi/Oomycetes		
<i>Aphanomyces euteiches</i> f. sp. <i>phaseoli</i>	Root rot	Aep
<i>Colletotrichum lindemuthianum</i>	Anthracnose	Cl
<i>Fusarium oxysporum</i> f.sp. <i>phaseoli</i>	Fusarium wilt	Fop
<i>Fusarium solani</i> f.sp. <i>phaseoli</i>	Fusarium root rot	Fsp
<i>Sclerotinia sclerotiorum</i>	White mold	Ss
<i>Uromyces appendiculatus</i>	Rust	Ua

27. <i>Pisum sativum</i> (Garden pea)		
Scientific name	English common name	Code
Viruses		
Bean leafroll virus (now <i>Luteovirus phaseoli</i>) /2032	Pea leaf roll virus, pea top yellows	BLRV
Bean yellow mosaic virus (now <i>Potyvirus phaseoliteum</i>) /2032	Bean yellow mosaic virus	BYMV
Pea enation mosaic virus /2032 (now <i>Umbravirus pisi</i>) /2032	Pea enation mosaic virus	PEMV-2
Pea seed-borne mosaic virus (now <i>Potyvirus pisumsemenportati</i>) /2032	Pea seed-borne mosaic virus	PSbMV
Bacteria		
<i>Pseudomonas syringae</i> pv. <i>pisi</i>	Bacterial blight	Psp
Fungi/Oomycetes		
<i>Aphanomyces euteiches</i> f. sp. <i>pisi</i>	Aphanomyces root rot	Aep
<i>Didymella pisi</i>	Ascochyta leaf and pod spot	Dp
<i>Didymella pinodella</i>	Leaf spot and foot rot	Dpn
<i>Botrytis cinerea</i>	Grey mold	Bc
<i>Erysiphe pisi</i>	Powdery mildew	Ep
<i>Fusarium oxysporum</i> f.sp. <i>pisi</i>	Near wilt	Fop
<i>Neocosmospora solani</i>	Fusarium root rot	Ns

**Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026**

<i>Didymella pinodes</i>	Ascochyta blight	Dps
<i>Peronospora viciae</i>	Downy mildew	Pv

¹⁰ *Ralstonia solanacearum* species complex comprises of three different species see Prior *et al.*, 2016

¹¹ Although *Xanthomonas axonopodis* pv. *phaseoli* and *X. fuscans* subsp. *fuscans* (Xff) (formerly *X. axonopodis* pv. *phaseoli* var. *fuscans*) are taxonomically different bacterial species that are the causal agents of common bacterial blight, it is not possible to differentiate them based on symptoms under natural conditions and there is no evidence that resistance to these two species in bean differ.



Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026

28. Raphanus sativus (Radish)		
Scientific name	English common name	Code
Viruses		
Turnip mosaic virus (now <i>Potyvirus rapae</i>) /2032	Turnip mosaic virus	TuMV
Bacteria		
<i>Pseudomonas syringae</i> pv. <i>maculicola</i>	Bacterial leaf spot, Peppery leaf spot	Psm
Fungi/Oomycetes		
<i>Albugo candida</i>	White rust	Ac
<i>Aphanomyces raphani</i>	Black root	Ar
<i>Fusarium oxysporum</i> f.sp. <i>raphani</i>	Yellows	For
<i>Hyaloperonospora brassicae</i> (ex <i>Peronospora</i> / <i>Hyaloperonospora parasitica</i>) / 2027	Downy mildew	Hb (ex Pp/ Hp)
<i>Plasmodiophora brassicae</i>	Clubroot	Pb
<i>Rhizoctonia solani</i>	Rhizoctonia scurf	Rs

29. Rubus spp. (Brambles)		
Scientific name	English common name	Code
Fungi/Oomycetes		
<i>Phytophthora rubi</i>	Phytophthora root rot	Pr
<i>Phytophthora cryptogea</i>	Phytophthora root rot	Pcr
<i>Phytophthora citricola</i>	Phytophthora root rot	Pci
<i>Phytophthora megasperma</i>	Phytophthora root rot	Pm
<i>Botrytis cinerea</i>	Grey mould	Bc
<i>Podosphaera aphanis</i>	Powdery mildew	Pa
<i>Kuehneola uredinis</i>	Cane and Leaf Rust	Ku
Viruses		
Raspberry bushy dwarf virus (now <i>Idaeovirus rubi</i>) /2032	Raspberry bushy dwarf virus	RBDV
Black raspberry necrosis virus (now <i>Sadwavirus rubi</i>) /2032	Black raspberry necrosis virus	BRNV
Raspberry leaf mottle virus (now <i>Closterovirus macularub</i>) /2032	Closterovirus macularub	RLMV
Rubus yellow net virus (now <i>Badnavirus reterubi</i>) /2032	Rubus yellow net virus	RYNV
Raspberry vein chlorosis virus (now <i>Alphacytovirus alphasubi</i>) /2032	Raspberry vein chlorosis virus	RVCV
Tomato ringspot virus (now <i>Nepovirus lycopersici</i>) /2032	Tomato ringspot virus	ToRSV

30. Solanum integrifolium (Eggplant rootstock)		
Scientific name	English common name	Code
Fungi/Oomycetes		
<i>Fusarium oxysporum</i> f.sp. <i>melongenae</i>	Fusarium wilt	Fom

**Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026**

31.¹²<i>Solanum lycopersicum</i> (ex <i>Lycopersicon esculentum</i>) (Tomato)		
Scientific name	English common name	Code
Viruses		
Beet curly top virus (now <i>Curtovirus betae</i>) /2032	Curly top virus	BCTV
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>) /2032	Cucumber mosaic virus	CMV
Groundnut ringspot virus (now <i>Orthospovirus arachianuli</i>) /2032	Groundnut ringspot virus	GRSV
Pepino mosaic virus (now <i>Potexvirus pepini</i>) /2032	Pepino mosaic virus	PepMV
Tobacco mosaic virus (now <i>Tobamovirus tabaci</i>) /2032	Tobacco mosaic virus	TMV
¹³ Tomato marchitez virus (now <i>Torradovirus marchitezum</i>) /2032	Tomato marchitez virus	ToMarV
Tomato brown rugose fruit virus (now <i>Tobamovirus fructirugosum</i>) /2032	Tomato brown rugose fruit virus	ToBRFV
Tomato chlorotic spot virus (now <i>Orthospovirus tomatoflavi</i>) /2032	Tomato chlorotic spot virus	TCSV
Tomato fruit blotch virus (now <i>Blunervirus solani</i>) /2032	Tomato fruit blotch virus	ToFBV
Tomato mosaic virus (now <i>Tobamovirus tomatotessellati</i>) /2032	Tomato mosaic virus	ToMV
Tomato torrado virus (now <i>Torradovirus lycopersici</i>) /2032	Tomato torrado virus	ToTV
Tomato spotted wilt virus (now <i>Orthospovirus tomatomaculae</i>) /2032	Tomato spotted wilt virus	TSWV
Tomato yellow leaf curl virus (now <i>Begomovirus coheni</i>) /2032	Tomato yellow leaf curl virus	TYLCV ¹⁴
Bacteria		
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i>	Bacterial canker	Cmm
<i>Pseudomonas corrugata</i>	Pith necrosis	Pc
<i>Pseudomonas syringae</i> pv. <i>tomato</i>	Bacterial speck	Pst
¹⁵ <i>Ralstonia solanacearum</i>	Bacterial wilt	Rs
¹⁶ <i>Xanthomonas</i> spp	Bacterial spot	X spp
Fungi/Oomycetes		
<i>Alternaria alternata</i> f.sp. <i>lycopersici</i>	Alternaria stem canker	Aal
<i>Alternaria solani</i>	Early blight	As
<i>Corynespora cassiicola</i>	Target spot	Cc
¹⁷ <i>Passalora fulva</i>	Leaf mold	Pf
<i>Fusarium falciforme</i>	Fusarium vine decline/foot rot	Ffa
<i>Fusarium oxysporum</i> f.sp. <i>lycopersici</i>	Fusarium wilt	Fol
<i>Fusarium oxysporum</i> f.sp. <i>radicis-lycopersici</i>	Fusarium crown and root rot	For
¹⁸ <i>Leveillula taurica</i>	Powdery mildew	Lt
<i>Pseudoidium neolycopersici</i>	Powdery mildew	Pn
<i>Phytophthora infestans</i>	Late blight	Pi

**Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026**

<i>Pseudopyrenochaeta lycopersici</i>	Corky root rot	PI
<i>Stemphylium botryosum</i> f.sp. <i>lycopersici</i>	Gray leaf spot	Sbl
<i>Stemphylium lycopersici</i>	Gray leaf spot	Sl
<i>Stemphylium solani</i>	Gray leaf spot	Ss
<i>Verticillium albo-atrum</i>	Verticillium wilt	Va
<i>Verticillium dahliae</i>	Verticillium wilt	Vd
Nematodes		
<i>Meloidogyne arenaria</i>	Root-knot	Ma
<i>Meloidogyne incognita</i>	Root-knot	Mi
<i>Meloidogyne javanica</i>	Root-knot	Mj

32. <i>Solanum melongena</i> (Eggplant/Aubergine)		
Scientific name	English common name	Code
Viruses		
Tomato mosaic virus (now <i>Tobamovirus tomatotessellati</i>) /2032	Tomato mosaic virus	ToMV
Tomato spotted wilt virus (now <i>Orthotospovirus tomatomaculatae</i>) /2032	Tomato spotted wilt virus	TSWV
Tobacco mild green mosaic virus	Tobacco mild green mosaic virus	TMGMV
Bacteria		
¹⁹ <i>Ralstonia solanacearum</i>	Bacterial wilt	Rs
Fungi/Oomycetes		
<i>Fusarium oxysporum</i> f.sp. <i>melongenae</i>	Fusarium wilt	Fom
<i>Verticillium albo-atrum</i>	Verticillium wilt	Va
<i>Verticillium dahliae</i>	Verticillium wilt	Vd
Nematodes		
<i>Meloidogyne incognita</i>	Root-knot	Mi

¹² Some of the codes also apply for tomato rootstocks.

¹³ Another scientific name: Tomato apex necrosis virus (ToANV) (ICTV)

¹⁴ Explanatory note to clarify the situation of TYLCV and TYLCD associated viruses

¹⁵ *Ralstonia solanacearum* species complex comprises of three different species see Prior *et al.*, 2016.

¹⁶ Taxonomic studies on the bacteria causing bacterial spot on tomato and pepper have shown there are four different species (*X. euvesicatoria*, *X. vesicatoria*, *X. perforans* and *X. gardneri*) that cannot be differentiated by pathogenicity as they all cause very similar symptoms. As resistance in tomato and pepper to bacterial spot is based on races that go across these species we proposed to not specify the species but to keep the general name.

¹⁷ Both *Cladosporium fulvum* and *Fulvia fulva* are still in use. The current name has changed from *Fulvia fulva* to *Passalora fulva* (See https://rvpadmin.cce.cornell.edu/uploads/doc_128.pdf).

¹⁸ Anamorph: *Oidiopsis sicula*

¹⁹ *Ralstonia solanacearum* species complex comprises of three different species see Prior *et al.*, 2016.

Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026

33. <i>Solanum torvum</i> (Eggplant rootstock)		
Scientific name	English common name	Code
Bacteria		
²⁰ <i>Ralstonia solanacearum</i>	Bacterial wilt	Rs
Fungi/Oomycetes		
<i>Fusarium oxysporum</i> f. sp. <i>melongenae</i>	Fusarium wilt	Fom
<i>Verticillium albo-atrum</i>	Verticillium wilt	Va
<i>Verticillium dahliae</i>	Verticillium wilt	Vd
Nematodes		
<i>Meloidogyne incognita</i>	Root-knot	Mi
²¹ <i>Meloidogyne enterolobii</i>	Root-knot	Me
<i>Meloidogyne arenaria</i>	Root-knot	Ma
<i>Meloidogyne javanica</i>	Root-knot	Mj

34. <i>Spinacia oleracea</i> (Spinach)		
Scientific name	English common name	Code
Viruses		
Cucumber mosaic virus (now <i>Cucumovirus CMV</i>) /2032	Cucumber mosaic virus	CMV
Fungi/Oomycetes		
<i>Wilsoniana occidentalis</i>	White rust	Wo
<i>Cladosporium variabile</i>	Leaf spot	Cv
²² <i>Colletotrichum dematium</i>	Anthracnose	Cd
<i>Fusarium oxysporum</i> f. sp. <i>spinaciae</i>	Fusarium wilt	Fos
<i>Peronospora effusa</i>	Downy mildew	Pe
²³ <i>Stemphylium botryosum</i> (now <i>Stemphylium beticola</i>) / 2027	Stemphylium leaf spot	Sb
²⁴ <i>Stemphylium vesicarium</i>	Stemphylium leaf spot	Sv
<i>Verticillium dahliae</i>	Verticillium wilt	Vd
Insects		
<i>Liriomyza langei</i>	Leaf miner	LI

²⁰ *Ralstonia solanacearum* species complex comprises of three different species see Prior *et al.*, 2016.

²¹ Other scientific name: *M. mayaguensis*

²² As per *Index Fungorum* this is the correct name for this pathogen, Syn. *Colletotrichum dematium* f. *spinaciae*; *Colletotrichum spinaciae*.

²³ As per Woudenberg *et al.*, 2017 and Liu *et al.*, 2020 *Stemphylium botryosum* will be renamed as *Stemphylium beticola* based on ITS rDNA, gapdh and cmdA sequences.

²⁴ *S. botryosum* isolates from WSU were analyzed as *S. beticola*. Majority of new isolates were analyzed as *S. vesicarium*. It is proposed to breeding companies to identify their isolates based on 'new' sequence analysis. Resistance is published for *S. vesicarium* (Liu *et al.*, 2020; du Toit, 2020).

Recommended Codes for Pest Organisms in Vegetable
& Selected Horticultural Crops
May 2026

35. Valerianella locusta (Corn salad)		
Scientific name	English common name	Code
Bacteria		
<i>Acidovorax valerianellae</i>	Bacterial spot	Av
Fungi/Oomycetes		
<i>Berkeleyomyces basicola</i>	Root rot	Bb
<i>Peronospora valerianellae</i>	Downy Mildew	Pv

36. Zea mays (Sweet corn)		
Scientific name	English common name	Code
Viruses		
Maize dwarf mosaic virus (now <i>Potyvirus zeae</i>) /2032	Maize dwarf mosaic virus	MDMV
Sugarcane mosaic virus (now <i>Potyvirus sacchari</i>) /2032	Sugarcane mosaic virus	SCMV
Bacteria		
<i>Pantoea stewartii</i> subsp. <i>stewartii</i>	Stewart's wilt	Pst
Fungi/Oomycetes		
<i>Bipolaris maydis</i>	Southern corn leaf blight	Bm
<i>Colletotrichum graminicola</i>	Anthracnose leaf blight	Cg
<i>Exserohilum turcicum</i>	Northern leaf blight	Et
<i>Puccinia polysora</i>	Southern rust	Pp
<i>Puccinia sorghi</i>	Common rust	Ps
<i>Ustilago maydis</i>	Common smut	Um

International Seed Federation