

Recommended Codes for Pest Organisms in Cereal and Vegetable Crops

March 2006
Subject to regular review

Adopted by the Working Group established by the ISF Vegetable & Ornamental and Cereal Crops Sections

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1. *Abelmoschus esculentus* (Okra)

| Scientific name | English common name | Code |
|-------------------------------------|-------------------------|-------|
| Viruses: | | |
| Okra yellow vein mosaic begomovirus | Okra yellow vein mosaic | OYVMV |
| Insects | | |
| <i>Amarasca biguttula</i> | Leaf hopper | Ab |

2. *Alliums* - *A. ampeloprasum* and *A. cepa* (Leek and Onion)

| Scientific name | English common name | Code |
|--|-------------------------|------|
| Viruses: | | |
| Leek yellow stripe potyvirus | Leek yellow stripe | LYSV |
| Bacteria | | |
| <i>Pseudomonas syringae</i> pv. <i>porri</i> | Pseudomonas leek blight | Psp |
| Fungi: | | |
| <i>Alternaria porri</i> | Purple blotch | Ap |
| <i>Botrytis allii</i> | Botrytis neck rot | Ba |
| <i>Botrytis 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 porri</i> | White tip of leek | Pp |
| <i>Puccinia allii</i> | Rust | Pa |
| <i>Pyrenochaeta terrestris</i> | Pink root | Pt |
| <i>Sclerotium cepivorum</i> | White rot | Sc |
| Insects | | |
| <i>Thrips tabaci</i> | Onion thrips | Tt |
| Nematodes | | |
| <i>Ditylenchus dipsaci</i> | Stem and bulb nematode | Dd |

3. *Apium graveolens* (Celery and Celeriac)

| Scientific name | English common name | Code |
|---|---------------------------|------|
| Viruses: | | |
| Celery mosaic potyvirus | Celery mosaic | CeMV |
| Bacteria: | | |
| <i>Pseudomonas syringae</i> pv. <i>apii</i> | Bacterial leaf spot | Psa |
| Fungi: | | |
| <i>Fusarium oxysporum</i> f.sp. <i>apii</i> | Fusarium yellows and wilt | Foa |
| <i>Septoria apiicola</i> | Late blight | Sa |

4. *Avena sativa* (Oats)

| Scientific name | English common name(s) | Code |
|--------------------------------|--|------|
| Viruses: | | |
| Barley yellow dwarf luteovirus | Barley yellow dwarf virus | BYDV |
| Oat golden stripe furovirus | Oat chlorotic stripe virus, oat tubular virus, soil-borne oat stripe virus | OGSV |

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| | | |
|---|--|-----|
| Oat mosaic bymovirus | Soil-borne oat mosaic virus | OMV |
| Fungi: | | |
| <i>Bipolaris victoriae</i> (teleomorph <i>Cochliobolus victoriae</i>) | Victoria blight | Bv |
| <i>Blumeria graminis</i> f. sp. <i>avenae</i> (anamorph: <i>Oidium monilioides</i>) | Powdery mildew | Bga |
| <i>Drechslera avenae</i> | Helminthosporium leaf spot, Helminthosporium leaf blotch, Drechslera leaf spot | Da |
| <i>Puccinia coronata</i> | Crown rust | Pc |
| <i>Puccinia graminis</i> f. sp. <i>avenae</i> | Stem rust | Pga |
| <i>Stagonospora avenae</i> f. sp. <i>avenaria</i> (teleomorph <i>Phaeosphaeria avenaria</i> f. sp. <i>avenaria</i>) | Speckled blotch, Septoria leaf blotch, Septoria black stem | Saa |
| <i>Ustilago avenae</i> | Loose smut | Ua |
| <i>Ustilago segetum</i> | Covered smut | Ug |
| Nematodes: | | |
| <i>Ditylenchus dipsaci</i> | Stem nematode, Stem eelworm, Stem and bulb nematode | Dd |
| <i>Heterodera avenae</i> | Cereal cyst nematode | Ha |

5. Benincasa hispida (Wax gourd)

| Scientific name | English common name | Code |
|---|---------------------|------|
| Fungi: | | |
| <i>Fusarium oxysporum</i> f.sp. <i>lagenariae</i> | Fusarium wilt | Fol |
| <i>Fusarium oxysporum</i> f.sp. <i>niveum</i> | Fusarium wilt | Fon |

6. Brassicas (Cabbage, Broccoli, Cauliflower, Chinese cabbage...)

| Scientific name | English common name | Code |
|--|--|------|
| Viruses: | | |
| Cauliflower mosaic caulimovirus | Cauliflower mosaic | CaMV |
| Turnip mosaic potyvirus | Turnip mosaic | TuMV |
| Bacteria: | | |
| <i>Pseudomonas syringae</i> pv. <i>maculicola</i> | Bacterial leaf spot, Peppery leaf spot | Psm |
| <i>Xanthomonas campestris</i> pv. <i>armoraciae</i> | Leaf spot | Xca |
| <i>Xanthomonas campestris</i> pv. <i>campestris</i> | Black rot | Xcc |
| Fungi: | | |
| <i>Albugo candida</i> | White rust | Ac |
| <i>Albugo macrospora</i> | White rust | Am |
| <i>Alternaria brassicae</i> | Black spot | Abe |
| <i>Alternaria brassicicola</i> | Black spot | Aba |
| <i>Alternaria japonica</i> | Black spot | Aj |
| <i>Erysiphe cruciferarum</i> (ex <i>E. polygoni</i>) | Powdery mildew | Ec |
| <i>Fusarium oxysporum</i> f.sp. <i>conglutinans</i> | Fusarium yellows | Foc |
| <i>Mycosphaerella brassicicola</i> | Ring spot | Mb |
| <i>Leptosphaeria maculans</i> (anamorph: <i>Phoma lingam</i>) | Black leg | Lm |
| <i>Peronospora parasitica</i> | Downy mildew | Pp |
| <i>Plasmodiophora brassicae</i> | Clubroot | Pb |
| <i>Verticillium albo-atrum</i> | Verticillium wilt | Va |

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| | | |
|---------------------------------|-------------------|----|
| <i>Verticillium dahliae</i> | Verticillium wilt | Vd |
| <i>Verticillium longisporum</i> | Verticillium wilt | VI |
| Insects: | | |
| <i>Brevicoryne brassicae</i> | Cabbage aphid | Bb |
| <i>Plutella xylostella</i> | Diamond back moth | Px |
| <i>Thrips tabaci</i> | Thrips | Tt |

7. *Capsicum annum* (Pepper)

| Scientific name | English common name | Code |
|--|----------------------------|--------|
| Viruses: | | |
| Chilli veinal mosaic potyvirus | Chilli veinal mosaic | ChiVMV |
| Cucumber mosaic cucumovirus | Cucumber mosaic | CMV |
| Pepper mild mottle tobamovirus | Pepper mild mottle | PMMoV |
| Pepper mottle potyvirus | Pepper mottle | PepMoV |
| Pepper yellow mosaic potyvirus | Pepper yellow mosaic | PepYMV |
| Potato Y potyvirus | Potato Y | PVY |
| Tobacco etch potyvirus | Tobacco etch | TEV |
| Tobacco mild green mosaic tobamovirus | Tobacco mild green mosaic | TMGMV |
| Tobacco mosaic tobamovirus | Tobacco mosaic | TMV |
| Tomato mosaic tobamovirus | Tomato mosaic | ToMV |
| Tomato spotted wilt tospovirus | Tomato spotted wilt | TSWV |
| Bacteria: | | |
| <i>Ralstonia solanacearum</i> | Bacterial wilt | Rs |
| <i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> | Bacterial spot | Xcv |
| Fungi: | | |
| <i>Fusarium oxysporum</i> f.sp. <i>capsici</i> | Fusarium wilt | Foc |
| <i>Leveillula taurica</i> (anamorph: <i>Oidiopsis sicula</i>) | Powdery mildew | Lt |
| <i>Phytophthora capsici</i> | Buckeye fruit 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 |

8. *Citrullus lanatus* (Watermelon)

| Scientific name | English common name | Code |
|---|------------------------------|-------|
| Viruses: | | |
| Cucumber green mottle mosaic tobamovirus | Cucumber green mottle mosaic | CGMMV |
| Cucumber mosaic cucumovirus | Cucumber mosaic | CMV |
| Papaya ringspot potyvirus | Papaya ringspot | PRSV |
| Watermelon mosaic potyvirus | Watermelon mosaic | WMV |
| Zucchini yellow mosaic potyvirus | Zucchini yellow mosaic | ZYMV |
| Bacteria: | | |
| <i>Acidovorax avenae</i> subsp. <i>citrulli</i> | Bacterial fruit blotch | Aac |
| Fungi: | | |
| <i>Colletotrichum orbiculare</i> (ex <i>Colletotrichum lagenarium</i>) | Anthracnose | Co |

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| | | |
|--|-------------------|-----|
| <i>Didymella bryoniae</i> | Gummy stem blight | Db |
| <i>Fusarium oxysporum</i> f.sp. <i>niveum</i> | Fusarium wilt | Fon |
| <i>Sphaerotheca fuliginea</i> (now <i>Podosphaeria xanthii</i>) | Powdery mildew | Sf |

9. Cucumis melo (Melon)

| Scientific name | English common name | Code |
|---|-------------------------|------|
| Viruses: | | |
| Cucumber vein yellowing ipomovirus | Cucumber vein yellowing | CVYV |
| Cucumber mosaic cucumovirus | Cucumber mosaic | CMV |
| Melon necrotic spot carmovirus | Melon necrotic spot | MNSV |
| ¹ Papaya ringspot potyvirus (ex WMV-I) | Papaya ringspot | PRSV |
| ¹ Watermelon mosaic potyvirus (ex WMV-II) | Watermelon mosaic | WMV |
| Zucchini yellow mosaic potyvirus | Zucchini yellows | ZYMV |
| Bacteria: | | |
| <i>Acidovorax avenae</i> subsp. <i>citrulli</i> | Bacterial fruit blotch | Aac |
| Fungi: | | |
| <i>Didymella bryoniae</i> | Gummy stem blight | Db |
| <i>Erysiphe cichoracearum</i> (now <i>Golovinomyces cichoracearum</i>) | Powdery mildew | Ec |
| <i>Fusarium oxysporum</i> f.sp. <i>melonis</i> | Fusarium wilt | Fom |
| <i>Pseudoperonospora cubensis</i> | Downy mildew | Pcu |
| <i>Sphaerotheca fuliginea</i> (now <i>Podosphaeria xanthii</i>) | Powdery mildew | Sf |
| Insects: | | |
| <i>Aphis gossypii</i> | Cotton aphid | Ag |

10. Cucumis sativus (Cucumber)

| Scientific name | English common name | Code |
|--|-----------------------------------|-------|
| Viruses: | | |
| Cucumber green mottle mosaic tobamovirus | Cucumber green mottle | CGMMV |
| Cucumber mosaic cucumovirus | Cucumber mosaic | CMV |
| Cucumber vein yellowing ipomovirus | Cucumber vein yellowing | CVYV |
| Cucurbit yellow stunting disorder crinivirus | Cucurbit yellow stunting disorder | CYSDV |
| Kyuri green mottle mosaic tobamovirus | Cucumber green mottle | KGMMV |
| Papaya ringspot potyvirus (ex WMV-I) | Papaya ringspot | PRSV |
| Watermelon mosaic potyvirus (ex WMV-II) | Watermelon mosaic | WMV |
| Zucchini yellow mosaic potyvirus | Zucchini yellows | ZYMV |
| Bacteria: | | |
| <i>Erwinia tracheiphila</i> | Bacterial wilt | Et |
| <i>Pseudomonas syringae</i> pv. <i>lachrymans</i> | Angular leaf spot | Psl |
| Fungi: | | |
| <i>Cladosporium cucumerinum</i> | Scab and gummosis | Ccu |
| <i>Colletotrichum orbiculare</i> (ex <i>Colletotrichum</i>) | Anthracnose | Co |

¹ The code used here deviates from that used currently by ICTV. The deviation is justified by the fact that it was already well established that WMV is no longer differentiated into two strains, rather two separate viruses.

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| | | |
|---|------------------------------------|-----|
| <i>lagenarium)</i> | | |
| <i>Corynespora cassiicola</i> | Corynespora blight and target spot | Cca |
| <i>Didymella bryoniae</i> | Gummy stem blight | Db |
| <i>Erysiphe cichoracearum</i> (now <i>Golovinomyces cichoracearum</i>) | Powdery mildew | Ec |
| <i>Fusarium oxysporum</i> f.sp. <i>cucumerinum</i> | Fusarium wilt | Foc |
| <i>Fusarium oxysporum</i> f.sp. <i>radicis-cucumerinum</i> | Fusarium crown and root rot | For |
| <i>Fusarium solani</i> f.sp. <i>cucurbitae</i> | Crown and root rot | Fsc |
| <i>Pseudoperonospora cubensis</i> | Downy mildew | Pcu |
| <i>Sphaerotheca fuliginea</i> (now <i>Podosphaeria xanthii</i>) | Powdery mildew | Sf |

11. Cucurbita pepo, C. maxima, C. moschata (Squash and pumpkin)

| Scientific name | English common name | Code |
|---|---------------------------------|-------|
| Viruses: | | |
| Cucumber green mottle tobamovirus | Cucumber green mottle mosaic | CGMMV |
| Cucumber mosaic cucumovirus | Cucumber mosaic | CMV |
| Luffa yellow mosaic begomovirus | Luffa yellow mosaic | LYMV |
| Papaya ringspot potyvirus (ex WMV-I) | Papaya ringspot | PRSV |
| Squash mosaic comovirus | Squash mosaic | SqMV |
| Watermelon mosaic potyvirus (ex WMV-II) | Watermelon mosaic | WMV |
| Watermelon morocconmosaic potyvirus | Moroccan watermelon mosaic | MWMV |
| Zucchini yellow mosaic potyvirus | Zucchini yellows | ZYMV |
| Bacteria: | | |
| <i>Acidovorax avenae</i> subsp. <i>citrulli</i> | Bacterial fruit blotch | Aac |
| Fungi: | | |
| <i>Didymella bryoniae</i> | Gummy stem blight | Db |
| <i>Erysiphe cichoracearum</i> (now <i>Golovinomyces cichoracearum</i>) | Powdery mildew | Ec |
| <i>Fusarium oxysporum</i> f.sp. <i>cucumerinum</i> | Fusarium wilt | Foc |
| <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 solani</i> f.sp. <i>cucurbitae</i> | Crown and root rot | Fsc |
| <i>Phomopsis sclerotoides</i> | Black root rot | Ps |
| <i>Phytophthora capsici</i> | Phytophthora crown and root rot | Pc |
| <i>Pseudoperonospora cubensis</i> | Downy mildew | Pcu |
| <i>Sphaerotheca fuliginea</i> (now <i>Podosphaeria xanthii</i>) | Powdery mildew | Sf |

12. Daucus carota var. sativa (Carrot)

| Scientific name | English common name | Code |
|---|------------------------|---------------|
| Bacteria: | | |
| <i>Xanthomonas campestris</i> pv. <i>carotae</i> (now <i>X. hortorum</i> pv. <i>carotae</i>) | Bacterial leaf blight | Xcc (now Xhc) |
| Fungi: | | |
| <i>Alternaria dauci</i> | Alternaria leaf blight | Ad |
| <i>Alternaria radicina</i> | Black rot | Ar |

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| | | |
|------------------------------|------------------------|----|
| <i>Cercospora carotae</i> | Cercospora leaf blight | Cc |
| <i>Erysiphe heraclei</i> | Powdery mildew | Eh |
| <i>Pythium sulcatum</i> | Cavity spot | Ps |
| <i>Pythium ultimum</i> | Cavity spot | Pu |
| <i>Pythium violae</i> | Cavity spot | Pv |
| Insects: | | |
| <i>Psila rosae</i> | Carrot fly | Pr |
| Nematodes: | | |
| <i>Meloidogyne incognita</i> | Root-knot | Mi |
| <i>Meloidogyne javanica</i> | Root-knot | Mj |

13. *Hordeum vulgare* (Barley)

| Scientific name | English common name(s) | Code |
|---|--|-------|
| Viruses: | | |
| Barley mild mosaic bymovirus | Barley mild mosaic | BaMMV |
| Barley yellow dwarf luteovirus | Barley yellow dwarf | BYDV |
| Barley yellow mosaic bymovirus | Barley yellow mosaic | BaYMV |
| Fungi: | | |
| <i>Bipolaris sorokiniana</i> (teleomorph <i>Cochliobolus sativus</i>) | Common root rot | Bs |
| <i>Blumeria graminis</i> f. sp. <i>hordei</i> | Powdery mildew | Bgh |
| <i>Drechslera graminea</i> (teleomorph: <i>Pyrenophora graminea</i>) | Leaf stripe, Barley stripe | Dg |
| <i>Drechslera teres</i> f. sp. <i>maculata</i> | Net blotch ('spot' form), Spot-type net blotch, Spotted net blotch (SNB) | Dtm |
| <i>Drechslera teres</i> f. sp. <i>teres</i> (teleomorph: <i>Pyrenophora teres</i>) | Net blotch ('net' form), Net-type net blotch, Netted net blotch (NNB) | Dtt |
| <i>Fusarium avenaceum</i> (teleomorph: <i>Gibberella avenacea</i>) | Fusarium head blight, Scab | Fa |
| <i>Fusarium culmorum</i> | Fusarium head blight, Scab | Fc |
| <i>Fusarium graminearum</i> (teleomorph: <i>Gibberella zeae</i>) | Fusarium head blight, Scab | Fg |
| <i>Fusarium pseudograminearum</i> | Crown rot | Fp |
| <i>Gaeumannomyces graminis</i> | Take-all | Gg |
| <i>Microdochium nivale</i> var. <i>majus</i> | Snow mould, Pink snow mold | Mnm |
| <i>Oculimacula acuformis</i> (anamorph: <i>Helgardia acuformis</i>) | Eyespot, Strawbreaker | Oa |
| <i>Oculimacula yallundae</i> (anamorph <i>Helgardia yallundae</i>) | Eyespot, Strawbreaker | Oy |
| <i>Puccinia graminis</i> f. sp. <i>tritici</i> | Stem rust | Pgt |
| <i>Puccinia hordei</i> | Leaf rust, Brown rust | Ph |
| <i>Puccinia striiformis</i> f. sp. <i>hordei</i> | Stripe rust, Yellow rust, BSR | Psh |
| <i>Pseudoseptoria donacis</i> | Halo spot | Pd |
| <i>Ramularia collo-cygni</i> | Ramularia, RCC | Rc |
| <i>Rhizoctonia solani</i> | Rhizoctonia bare patch, Rhizoctonia root rot | Rso |
| <i>Rhynchosporium secalis</i> | Rhynchosporium, Leaf blotch, Scald | Rhs |
| <i>Septoria passerinii</i> | Speckled leaf blotch, Septoria speckled leaf blotch (SSLB) | Sp |
| <i>Stagonospora avenae</i> f. sp. <i>triticea</i> (teleomorph: <i>Phaeosphaeria avenaria</i> f. sp. <i>triticea</i>) | Speckled leaf blotch, Septoria speckled leaf blotch (SSLB) | Sat |

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| | | |
|----------------------------|--|-----|
| <i>Typhula idahoensis</i> | Speckled snow mold | Tid |
| <i>Typhula incarnata</i> | Snow rot, Gray snow mold, Typhula blight | Tin |
| <i>Ustilago hordei</i> | Covered smut | Uh |
| <i>Ustilago tritici</i> | Loose smut, True loose smut | Ut |
| Insects: | | |
| <i>Schizaphis graminum</i> | Greenbug | Sg |
| Nematodes: | | |
| <i>Heterodera avenae</i> | Cereal cyst nematode | Ha |

14. *Lactuca sativa* (Lettuce)

| Scientific name | English common name | Code |
|--|---------------------|-------------|
| Viruses: | | |
| Beet western yellows luteovirus | Yellows | BWYV |
| Cucumber mosaic cucumovirus | Cucumber mosaic | CMV |
| Lettuce necrotic stunt tobusvirus | Lettuce die-back | LNSV |
| Lettuce mosaic potyvirus | Lettuce mosaic | LMV |
| Mirafiori lettuce big-vein ophiovirus | Lettuce big vein | MLBVV |
| Tomato bushy stunt tombusvirus | Lettuce die-back | TBSV |
| Tomato spotted wilt tospovirus | Spotted wilt | TSWV |
| Bacteria: | | |
| <i>Pseudomonas cichorii</i> | Bacterial rot | Pc |
| <i>Rhizomonas suberifaciens</i> (now <i>Sphingomonas suberifaciens</i>) | Corky root | Rs (now Ss) |
| <i>Xanthomonas campestris</i> pv. <i>vitians</i> | Bacterial spot | Xcv |
| Fungi: | | |
| <i>Bremia lactucae</i> | Downy mildew | Bl |
| <i>Fusarium oxysporum</i> f.sp. <i>lactucae</i> | Fusarium wilt | Fol |
| <i>Microdochium panattonianum</i> | Anthraxnose | Mp |
| Insects: | | |
| <i>Macrosiphum euphorbiae</i> | Potato aphid | Me |
| <i>Myzus persicae</i> | Green peach aphid | Mp |
| <i>Nasonovia ribisnigri</i> | Lettuce leaf aphid | Nr |
| <i>Pemphigus bursarius</i> | Lettuce root aphid | Pb |

15. *Lagenaria siceraria* (Bottle gourd)

| Scientific name | English common name | Code |
|---|---------------------|------|
| Fungi: | | |
| <i>Fusarium oxysporum</i> f.sp. <i>lagenariae</i> | Fusarium wilt | Fol |
| <i>Fusarium oxysporum</i> f.sp. <i>niveum</i> | Fusarium wilt | Fon |

16. *Lycopersicon esculentum* (Tomato)

| Scientific name | English common name | Code |
|-----------------|---------------------|------|
| Viruses: | | |

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| | | |
|--|-----------------------------|-------------|
| Beet curly top curtovirus | Curly top | BCTV |
| Cucumber mosaic cucumovirus | Cucumber mosaic | CMV |
| Pepino mosaic potexvirus | Pepino mosaic virus | PepMV |
| Tobacco mosaic tobamovirus | Tobacco mosaic | TMV |
| Tomato spotted wilt tospovirus | Tomato spotted wilt | TSWV |
| Tomato mosaic tobamovirus | Tomato mosaic | ToMV |
| Tomato yellow leaf curl begomovirus | Tomato yellow leaf curl | TYLCV |
| 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 |
| <i>Ralstonia solanacearum</i> | Bacterial wilt | Rs |
| <i>Xanthomonas campestris</i> pv. <i>vesicatoria</i> | Bacterial spot | Xcv |
| Fungi: | | |
| <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 |
| <i>Fulvia fulva</i> (ex <i>Cladosporium fulvum</i>) | Leaf mold | Ff |
| <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 |
| <i>Leveillula taurica</i> (anamorph: <i>Oidiopsis sicula</i>) | Powdery mildew | Lt |
| <i>Oidium lycopersicum</i> (now <i>Oidium neolycopersici</i>) | Powdery mildew | OI (now On) |
| <i>Phytophthora infestans</i> | Late blight | Pi |
| <i>Phytophthora parasitica</i> | Buckeye fruit and root rot | Pp |
| <i>Pyrenochaeta lycopersici</i> | Corky root rot | PI |
| <i>Stemphylium botryosum</i> f.sp. <i>lycopersici</i> | Gray leaf spot | Sbl |
| <i>Stemphylium lycopersici</i> (ex <i>Stemphylium floridanum</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 |

17. *Phaseolus vulgaris* (Dwarf and climbing French bean)

| Scientific name | English common name | Code |
|---------------------------------------|-----------------------------|-------|
| Viruses: | | |
| Bean common mosaic potyvirus | Bean common mosaic | BCMV |
| Bean common mosaic necrosis potyvirus | Bean common mosaic necrosis | BCMNV |
| Bean golden mosaic begomovirus | Bean golden mosaic | BGMV |
| Bean golden yellow mosaic begomovirus | Bean golden yellow mosaic | BGYMV |
| Bean yellow mosaic potyvirus | Bean yellow mosaic | BYMV |
| Beet mild curly top curtovirus | Mild curly top | BMCTV |
| Beet severe curly top curtovirus | Severe curly top | BSCTV |
| Beet curly top curtovirus | Beet curly top | BCTV |
| Cucumber mosaic cucumovirus | Cucumber virus | CMV |

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| Bacteria: | | |
|---|--------------------------|-----|
| <i>Pseudomonas savastanoi</i> pv. <i>phaseolicola</i> | Halo blight | Psp |
| <i>Pseudomonas syringae</i> pv. <i>syringae</i> | Bacterial brown spot | Pss |
| <i>Xanthomonas axonopodis</i> pv. <i>phaseoli</i> | Common or fuscous blight | Xap |
| Fungi: | | |
| <i>Aphanomyces euteiches</i> | Root rot | Ae |
| <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 |

18. *Pisum sativum* (Garden pea)

| Scientific name | English common name | Code |
|---|--------------------------------|-------|
| Viruses: | | |
| Bean leaf roll luteovirus | Pea leaf roll, pea top yellows | BLRV |
| Bean yellow mosaic potyvirus | Bean yellow mosaic | BYMV |
| Pea enation mosaic enamovirus | Pea enation mosaic | PEMV |
| Pea seed-borne mosaic potyvirus | Pea seed-borne mosaic | PSbMV |
| Bacteria: | | |
| <i>Pseudomonas syringae</i> pv. <i>pisi</i> | Bacterial blight | Psp |
| Fungi: | | |
| <i>Aphanomyces euteiches</i> | Aphanomyces root rot | Ae |
| <i>Ascochyta pisi</i> | Ascochyta leaf and pod spot | Aps |
| <i>Ascochyta pinodella</i> | Leaf spot and foot rot | Apn |
| <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>Fusarium solani</i> | Fusarium root rot | Fs |
| <i>Mycosphaerella pinodes</i> | Ascochyta blight | Mp |
| <i>Peronospora viciae</i> (ex <i>Peronospora pisi</i>) | Downy mildew | Pv |

19. *Raphanus sativus* (Radish)

| Scientific name | English common name | Code |
|---|--|------|
| Viruses: | | |
| Turnip mosaic potyvirus | Turnip mosaic | 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 |
| Fungi: | | |
| <i>Alternaria brassicae</i> | Black spot | Abe |
| <i>Alternaria brassicicola</i> | Black spot | Aba |
| <i>Alternaria japonica</i> | Black spot | Aj |
| <i>Aphanomyces raphani</i> | Black root | Ar |
| <i>Fusarium oxysporum</i> f.sp. <i>raphani</i> | Yellows | For |
| <i>Peronospora parasitica</i> | Downy mildew | Pp |

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| | | |
|--------------------------------|-------------------|----|
| <i>Plasmodiophora brassica</i> | Clubroot | Pb |
| <i>Rhizoctonia solani</i> | Rhizoctonia scurf | Rs |

20. *Secale cereale* (Rye)

| Scientific name | English common name(s) | Code |
|---|--|-------|
| Viruses: | | |
| Barley yellow dwarf luteovirus | Barley yellow dwarf virus | BYDV |
| Wheat soil-borne mosaic furovirus | Soil-borne wheat green mosaic virus, Wheat mosaic virus | SBWMV |
| Fungi: | | |
| <i>Bipolaris sorokiniana</i> (teleomorph: <i>Cochliobolus sativus</i>) | Spot blotch, Leaf blotch | Bs |
| <i>Blumeria graminis</i> f. sp. <i>secalis</i> (anamorph: <i>Oidium monilioides</i>) | Powdery mildew | Bgs |
| <i>Claviceps purpurea</i> (anamorph: <i>Sphacelia segetum</i>) | Ergot | Cp |
| <i>Gaeumannomyces graminis</i> | Take-all | Gg |
| <i>Oculimacula acuformis</i> (anamorph: <i>Helgardia acuformis</i>) | Eyespot, Strawbreaker | Oa |
| <i>Oculimacula yallundae</i> (anamorph: <i>Helgardia yallundae</i>) | Eyespot, Strawbreaker | Oy |
| <i>Phaeosphaeria nodorum</i> (anamorph: <i>Stagonospora nodorum</i>) | Septoria nodorum, Stagonospora blotch, Glume blotch | Pn |
| <i>Puccinia recondita</i> (anamorph: <i>Aecidium clematidis</i>) | Leaf rust, Brown rust | Pr |
| <i>Rhynchosporium secalis</i> | Rhynchosporium Leaf blotch, Scald | Rs |
| <i>Urocystis occulta</i> | Stem smut, Stalk smut, Stripe smut | Uo |
| <i>Ustilago tritici</i> | Loose smut | Ut |
| Nematodes: | | |
| <i>Heterodera avenae</i> | Cereal cyst nematode, CCN | Ha |

21. *Solanum melongena* (Eggplant/Aubergine)

| Scientific name | English common name | Code |
|---|---------------------|------|
| Viruses: | | |
| Tomato mosaic tobamovirus | Tomato mosaic | ToMV |
| Tomato spotted wilt tospovirus | Tomato spotted wilt | TSWV |
| Bacteria: | | |
| <i>Ralstonia solanacearum</i> | Bacterial wilt | Rs |
| Fungi: | | |
| <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 |

22. *Spinacia oleracea* (Spinach)

| Scientific name | English common name | Code |
|-----------------------------|---------------------|------|
| Viruses: | | |
| Cucumber mosaic cucumovirus | Cucumber mosaic | CMV |

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| Fungi: | | |
|--|---------------|-----|
| <i>Albugo occidentalis</i> | White rust | Ao |
| <i>Cladosporium variabile</i> | Leaf spot | Cv |
| <i>Fusarium oxysporum</i> f.sp. <i>spinaciae</i> | Fusarium wilt | Fos |
| <i>Peronospora farinosa</i> f.sp. <i>spinaciae</i> (ex <i>Peronospora effusa</i>) | Downy mildew | Pfs |

23. *Triticum* spp. (Wheat)

| Scientific name | English common name(s) | Code |
|--|---|-------------|
| Viruses: | | |
| Barley yellow dwarf luteovirus | Barley yellow dwarf | BYDV |
| Wheat soil-borne mosaic furovirus | Soil-borne wheat green mosaic virus, Wheat mosaic virus | SBWMV |
| Wheat dwarf monogeminivirus | Wheat dwarf virus | WDV |
| Wheat streak mosaic rymovirus | Wheat streak mosaic virus | WSMV |
| Wheat spindle streak mosaic bymovirus | Wheat spindle streak mosaic virus | WSSMV |
| Bacteria: | | |
| <i>Pseudomonas syringae</i> | Bacterial leaf blight | Ps |
| <i>Xanthomonas campestris</i> pv. <i>translucens</i> | Bacterial leaf streak, Black chaff, Bacterial stripe | Xct |
| <i>Xanthomonas translucens</i> pv. <i>undulosa</i> | Bacterial leaf streak, BLS, Black chaff, Bacterial stripe | Xtu |
| Fungi: | | |
| <i>Alternaria alternata</i> | Sooty moulds, Black head molds | Aa |
| <i>Alternaria infectoria</i> | Sooty moulds, Black head molds | Ai |
| <i>Alternaria triticina</i> | Sooty moulds, Black head molds | At |
| <i>Bipolaris sorokiniana</i> (teleomorph: <i>Cochliobolus sativus</i>) | Common root rot, CRR, Cochliobolus root rot | Bs |
| <i>Blumeria graminis</i> f. sp. <i>tritici</i> (anamorph: <i>Oidium monilioides</i>) | Powdery mildew | Bgt |
| <i>Cladosporium herbarum</i> (teleomorph: <i>Mycosphaerella tassiana</i>) | Sooty moulds, Black head molds | Ch |
| <i>Claviceps purpurea</i> (anamorph: <i>Sphacelia segetum</i>) | Ergot | Cp |
| <i>Fusarium avenaceum</i> (teleomorph: <i>Gibberella avenacea</i>) | Brown foot rot, Fusarium foot rot, Fusarium head blight (FHB), Scab, Fusarium ear blight, Seedling blight | Fa |
| <i>Fusarium culmorum</i> | Brown foot rot, Fusarium foot rot, Fusarium head blight (FHB), Scab, Fusarium ear blight, Dryland root rot | Fc |
| <i>Fusarium graminearum</i> (teleomorph: <i>Gibberella zeae</i>) | Brown foot rot, Fusarium foot rot, Fusarium head blight (FHB), Scab, Fusarium ear blight, Dryland foot rot | Fg |
| <i>Fusarium langsethiae</i> | Fusarium head blight (FHB), Scab, Fusarium ear blight | Fl |
| <i>Fusarium poae</i> | Fusarium head blight (FHB), Scab, Fusarium ear blight | Fpo |
| <i>Fusarium pseudograminearum</i> | Foot rot | Fps |
| <i>Gaeumannomyces graminis</i> | Take-all | Gg |
| <i>Hymenula cerealis</i> | Cephalosporium stripe | Hc |
| <i>Microdochium nivale</i> var. <i>majus</i> (teleomorph: <i>Monographella nivalis</i>) | Brown foot rot, Fusarium foot rot, Fusarium head blight (FHB), Scab, Fusarium ear blight, Fusarium seedling blight | Mnm |

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| | | |
|---|--|-----|
| <i>Microdochium nivale</i> var. <i>nivale</i> (teleomorph: <i>Monographella nivalis</i>) | Brown foot rot, Fusarium foot rot, Fusarium head blight (FHB), Scab, Fusarium ear blight, Fusarium seedling blight | Mnn |
| <i>Mycosphaerella graminicola</i> (anamorph: <i>Septoria tritici</i>) | Septoria tritici, Septoria tritici leaf blotch, Septoria blotch, STB | Mg |
| <i>Oculimacula acuformis</i> (anamorph: <i>Helgardia acuformis</i>) | Eyespot, Strawbreaker | Oa |
| <i>Oculimacula yallundae</i> (anamorph: <i>Helgardia yallundae</i>) | Eyespot, Strawbreaker | Oy |
| <i>Phaeosphaeria nodorum</i> (anamorph: <i>Stagonospora nodorum</i>) | Septoria nodorum, Stagonospora blotch, Glume blotch | Pn |
| <i>Puccinia graminis</i> f. sp. <i>tritici</i> | Black rust, Stem rust | Pgt |
| <i>Puccinia striiformis</i> f. sp. <i>tritici</i> | Stripe rust, Yellow rust | Pst |
| <i>Puccinia triticina</i> | Leaf rust, Brown rust | Pt |
| <i>Pyrenophora tritici-repentis</i> (anamorph: <i>Drechslera tritici-repentis</i>) | Tan spot, Yellow leaf spot, DTR | Ptr |
| <i>Rhizoctonia cerealis</i> | Sharp eyespot | Rc |
| <i>Tilletia caries</i> | Common bunt, Stinking smut | Tca |
| <i>Tilletia controversa</i> | Dwarf bunt | Tco |
| <i>Tilletia indica</i> | Karnal bunt | Ti |
| <i>Tilletia laevis</i> | Common bunt, Stinking smut | TI |
| <i>Urocystis agropyri</i> | Flag smut | Ua |
| <i>Ustilago tritici</i> | Loose smut | Ut |
| Nematodes: | | |
| <i>Heterodera avenae</i> | Cereal cyst nematode, CCN | Ha |

24. *Valerianella locusta* (Corn salad)

| Scientific name | English common name | Code |
|----------------------------------|---------------------|------|
| Fungi: | | |
| <i>Perenospora valerianellae</i> | Downy mildew | Pv |
| <i>Phoma valerianellae</i> | Damping off | Phv |

25. *Zea mays* (Sweet corn)

| Scientific name | English common name | Code |
|---|---------------------------|------|
| Viruses: | | |
| Maize dwarf mosaic potyvirus | Maize dwarf mosaic | MDMV |
| Sugarcane mosaic potyvirus | Sugarcane mosaic | SMV |
| Bacteria: | | |
| <i>Pantoea stewartii</i> (ex <i>Erwinia stewartii</i>) | Stewart's wilt | Pst |
| Fungi: | | |
| <i>Bipolaris maydis</i> | Southern corn leaf blight | Bm |
| <i>Exserohilum turcicum</i> (ex <i>Setosphaeria turcica</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 |