

European and Mediterranean Plant Protection Organization  
Organisation Européenne et Méditerranéenne pour la Protection des Plantes

# Normes OEPP EPPO Standards

Diagnostics  
Diagnostic

PM 7/24 (3)



Organisation Européenne et Méditerranéenne pour la Protection des Plantes  
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## Approval

EPPO Standards are approved by EPPO Council. The date of approval appears in each individual Standard. In the terms of Article II of the IPPC, EPPO Standards are Regional Standards for the members of EPPO.

## Review

EPPO Standards are subject to periodic review and amendment. The next review date for this EPPO Standard is decided by the EPPO Working Party on Phytosanitary Regulations.

## Amendment record

Amendments will be issued as necessary, numbered and dated. The dates of amendment appear in each individual Standard (as appropriate).

## Scope

EPPO Diagnostic Protocols are intended to be used by NPPOs, in their capacity as bodies responsible for the application of phytosanitary measures to detect and identify the regulated pests of the EPPO and/or European Union lists.

In 1998, EPPO started a new programme to prepare diagnostic protocols for the regulated pests of the EPPO region (including the EU). The work is conducted by the EPPO Panel on Diagnostics and other specialist Panels. The objective of the programme is to develop an internationally agreed diagnostic protocol for most of the EPPO list of pests recommended for regulation. The protocols are based on the many years of experience of EPPO experts. The first drafts are prepared by an assigned expert author (s). They are written according to a 'common format and content of a diagnostic protocol' agreed by the Panel on Diagnostics, modified as necessary to fit individual pests. As a general rule, the protocol recommends a particular means of detection or identification which is considered to have advantages (of reliability, ease of use, etc.) over other methods.

The following general provisions apply to all diagnostic protocols:

- Laboratory procedures should be adequate for the handling of quarantine pests (including positive controls), with particular reference to waste disposal facilities, and should respect the conditions of appropriate licences issued by the NPPO. Quality control Standards should be applied to avoid administrative and other errors, especially concerning labelling and documentation
- Laboratory tests may involve the use of chemicals or apparatus which present a certain hazard. In all cases, local safety procedures should be strictly followed

- Use of names of chemicals or equipment in these EPPO Standards implies no approval of them to the exclusion of others that may also be suitable
- Laboratory procedures presented in the protocols may be adjusted to the Standards of individual laboratories, provided that they are adequately validated or that proper positive and negative controls are included.

## References

- EPPO/CABI (1996) *Quarantine Pests for Europe*, 2nd edn. CAB International, Wallingford (GB).
- EU (2000) Council Directive 2000/29/EC of 8 May 2000 on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community. *Official Journal of the European Communities* **L169**, 1–112.
- FAO (1997) *International Plant Protection Convention* (new revised text). FAO, Rome (IT).
- IPPC (1993) *Principles of Plant Quarantine as Related to International Trade*. ISPM no. 1. IPPC Secretariat, FAO, Rome (IT).
- IPPC (2002) *Glossary of Phytosanitary Terms*. ISPM no. 5. IPPC Secretariat, FAO, Rome (IT).
- OEPP/EPPO (2014) EPPO Standards PM 1/2 (22) EPPO A1 and A2 lists of quarantine pests. Available on <http://archives.eppo.int/EPPOStandards/general.htm> (last accessed 01 Sept 2014).

## Definitions

The definitions for the terms in EPPO Diagnostic Standards are now described in OEPP/EPPO Standard PM 7/76 (4) Use of EPPO Diagnostic Protocols, *EPPO Bulletin/Bulletin OEPP* **47**, 7–9.

## Outline of requirements

EPPO Standards of series PM 7 include general Standards on diagnostics and diagnostic Protocols for individual pests. The diagnostic protocols provide all the information necessary for a named pest to be detected and positively identified. Each protocol begins with some short general information on the pest (its appearance, relationship with other organisms, host range, effects on host, geographical distribution and its identity) and then gives details on detection and identification (including comparison with similar species, requirements for a positive diagnosis). List of institutes or individuals where further information on that organism can be obtained and references (on the diagnosis, detection/ extraction method, test methods) are provided as well.

## Existing EPPO Standards in this series

130 EPPO Standards on diagnostic protocols, including 13 general Standards, have now been approved and published (including the revised Standard published here). Each Standard is numbered in the style PM 7/4 (1), meaning an EPPO Standard on Phytosanitary Measures (PM), in series no. 7 (Diagnostic Protocols), in this case Standard no. 4, first version.

The existing Standards are:

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PM 7/1 (1)	<i>Ceratocystis fagacearum</i> , Bulletin OEPP/EPPO Bulletin <b>31</b> , 41–44
PM 7/2 (2)	Tobacco ringspot virus, Bulletin OEPP/EPPO Bulletin <b>47</b> , 135–145
PM 7/4 (3)	<i>Bursaphelenchus xylophilus</i> , Bulletin OEPP/EPPO Bulletin <b>43</b> , 105–118
PM 7/5 (2)	<i>Nacobbus aberrans sensu lato</i> , Bulletin OEPP/EPPO Bulletin <b>39</b> , 376–381
PM 7/6 (1)	<i>Chrysanthemum stunt pospiviroid</i> , Bulletin OEPP/EPPO Bulletin <b>32</b> , 245–253
PM 7/7 (1)	<i>Aleurocanthus spiniferus</i> , Bulletin OEPP/EPPO Bulletin <b>32</b> , 255–259
PM 7/8 (1)	<i>Aleurocanthus woglumi</i> , Bulletin OEPP/EPPO Bulletin <b>32</b> , 261–265
PM 7/9 (1)	<i>Cacoeconomorpha pronubana</i> , Bulletin OEPP/EPPO Bulletin <b>32</b> , 267–275
PM 7/10 (1)	<i>Cacyreus marshalli</i> , Bulletin OEPP/EPPO Bulletin <b>32</b> , 277–279
PM 7/11 (1)	<i>Frankliniella occidentalis</i> , Bulletin OEPP/EPPO Bulletin <b>32</b> , 281–292
PM 7/12 (1)	<i>Parasaissetia nigra</i> , Bulletin OEPP/EPPO Bulletin <b>32</b> , 293–298
PM 7/13 (2)	<i>Trogoderma granarium</i> , Bulletin OEPP/EPPO Bulletin <b>43</b> , 431–448
PM 7/14 (2)	<i>Ceratocystis platani</i> , Bulletin OEPP/EPPO Bulletin <b>44</b> , 338–349
PM 7/15 (1)	<i>Ciborinia camelliae</i> , Bulletin OEPP/EPPO Bulletin <b>33</b> , 257–264
PM 7/16 (1)	<i>Fusarium oxysporum</i> f. sp. <i>albedinis</i> , Bulletin OEPP/EPPO Bulletin <b>33</b> , 265–270
PM 7/17 (2)	<i>Guignardia citricarpa</i> , Bulletin OEPP/EPPO Bulletin <b>39</b> , 318–327
PM 7/18 (2)	<i>Monilinia fructicola</i> , Bulletin OEPP/EPPO Bulletin <b>39</b> , 337–343
PM 7/19 (1)	<i>Helicoverpa armigera</i> , Bulletin OEPP/EPPO Bulletin <b>33</b> , 289–296
PM 7/20 (2)	<i>Erwinia amylovora</i> , Bulletin OEPP/EPPO Bulletin <b>43</b> , 21–45
PM 7/21 (2)	<i>Ralstonia solanacearum</i> , <i>R. pseudosolanacearum</i> and <i>R. syzygii</i> ( <i>Ralstonia solanacearum</i> Species Complex), Bulletin OEPP/EPPO Bulletin <b>48</b> , 32–63
PM 7/22 (1)	<i>Xanthomonas arboricola</i> pv. <i>corylina</i> , Bulletin OEPP/EPPO Bulletin <b>34</b> , 179–182
PM 7/23 (2)	<i>Xanthomonas axonopodis</i> pv. <i>dieffenbachiae</i> , Bulletin OEPP/EPPO Bulletin <b>39</b> , 393–402
PM 7/24 (3)	<i>Xylella fastidiosa</i> , Bulletin OEPP/EPPO Bulletin <b>48</b> , 175–218
PM 7/26 (1)	<i>Phytophthora cinnamomi</i> , Bulletin OEPP/EPPO Bulletin <b>34</b> , 201–208
PM 7/27 (1)	<i>Puccinia horiana</i> , Bulletin OEPP/EPPO Bulletin <b>34</b> , 209–212
PM 7/28 (2)	<i>Synchytrium endobioticum</i> , Bulletin OEPP/EPPO Bulletin <b>47</b> , 420–440
PM 7/29 (3)	<i>Tilletia indica</i> , Bulletin OEPP/EPPO Bulletin <b>48</b> , 7–31
PM 7/30 (2)	Beet necrotic yellow vein benyvirus, Bulletin OEPP/EPPO Bulletin <b>36</b> , 429–440
PM 7/31 (1)	Citrus tristeza closterovirus, Bulletin OEPP/EPPO Bulletin <b>34</b> , 239–246
PM 7/32 (1)	Plum pox potyvirus, Bulletin OEPP/EPPO Bulletin <b>34</b> , 247–256
PM 7/33 (1)	Potato spindle tuber pospiviroid, Bulletin OEPP/EPPO Bulletin <b>34</b> , 257–270
PM 7/34 (1)	Tomato spotted wilt tospovirus, Bulletin OEPP/EPPO Bulletin <b>34</b> , 271–280
PM 7/35 (1)	<i>Bemisia tabaci</i> , Bulletin OEPP/EPPO Bulletin <b>34</b> , 281–288
PM 7/36 (2)	<i>Diabrotica virgifera virgifera</i> , Bulletin OEPP/EPPO Bulletin <b>47</b> , 164–173
PM 7/37 (1)	<i>Thaumetopoea pityocampa</i> , Bulletin OEPP/EPPO Bulletin <b>34</b> , 295–298
PM 7/38 (1)	<i>Unaspis citri</i> , Bulletin OEPP/EPPO Bulletin <b>34</b> , 299–302
PM 7/39 (2)	<i>Aphelenchoides besseyi</i> , Bulletin OEPP/EPPO Bulletin <b>47</b> , 384–400
PM 7/40 (3)	<i>Globodera rostochiensis</i> and <i>Globodera pallida</i> , Bulletin OEPP/EPPO Bulletin <b>43</b> , 174–197
PM 7/41 (3)	<i>Meloidogyne chitwoodi</i> and <i>Meloidogyne fallax</i> , Bulletin OEPP/EPPO Bulletin <b>46</b> , 171–189
PM 7/42 (3)	<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i> , Bulletin OEPP/EPPO Bulletin <b>46</b> , 202–225
PM 7/43 (1)	<i>Pseudomonas syringae</i> pv. <i>persicae</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 285–288
PM 7/44 (1)	<i>Xanthomonas axonopodis</i> pv. <i>citri</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 289–294
PM 7/45 (1)	<i>Cryphonectria parasitica</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 295–298
PM 7/46 (3)	<i>Lecanosticta acicola</i> (formerly <i>Mycosphaerella dearnessii</i> ), <i>Dothistroma septosporum</i> (formerly <i>Mycosphaerella pini</i> ) and <i>Dothistroma pini</i> , Bulletin OEPP/EPPO Bulletin <b>45</b> , 163–182
PM 7/48 (3)	<i>Plenodomus tracheiphilus</i> (formerly <i>Phoma tracheiphila</i> ), Bulletin OEPP/EPPO Bulletin <b>45</b> , 183–192
PM 7/49 (1)	Tomato ringspot nepovirus, Bulletin OEPP/EPPO Bulletin <b>35</b> , 313–318
PM 7/50 (1)	Tomato yellow leaf curl and Tomato mottle begomoviruses, Bulletin OEPP/EPPO Bulletin <b>35</b> , 319–326
PM 7/51 (1)	<i>Aonidiella citrina</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 327–330
PM 7/52 (1)	<i>Diaphorina citri</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 331–334
PM 7/53 (1)	<i>Liriomyza</i> spp., Bulletin OEPP/EPPO Bulletin <b>35</b> , 335–344
PM 7/54 (1)	<i>Lopholeucaspis japonica</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 345–348
PM 7/55 (1)	<i>Rhizococcus hibisci</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 349–352
PM 7/56 (1)	<i>Scirtothrips aurantii</i> , <i>Scirtothrips citri</i> & <i>Scirtothrips dorsalis</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 353–356
PM 7/57 (1)	<i>Trioza erytraea</i> , Bulletin OEPP/EPPO Bulletin <b>35</b> , 357–360
PM 7/58 (1)	<i>Burkholderia caryophylli</i> , Bulletin OEPP/EPPO Bulletin <b>36</b> , 95–98
PM 7/58 (1)	<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> , Bulletin OEPP/EPPO Bulletin <b>36</b> , 99–109
PM 7/60 (2)	<i>Panthoea stewartii</i> subsp. <i>stewartii</i> , Bulletin OEPP/EPPO Bulletin <b>46</b> , 226–236
PM 7/61 (1)	<i>Candidatus Phytoplasma aurantifoliae</i> , Bulletin OEPP/EPPO Bulletin <b>36</b> , 117–119
PM 7/62 (2)	' <i>Candidatus Phytoplasma mali</i> ', ' <i>Ca. P. pyri</i> ' and ' <i>Ca. P. prunorum</i> ' Bulletin OEPP/EPPO Bulletin <b>47</b> , 146–163
PM 7/63 (1*)	<i>Candidatus Phytoplasma pyri</i> , *now replaced by PM 7/76 (2)

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PM 7/64 (1)	<i>Xanthomons arboricola</i> pv. <i>pruni</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 129–133
PM 7/65 (1)	<i>Xanthomonas fragariae</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 132–144
PM 7/66 (1)	<i>Phytophthora ramorum</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 145–155
PM 7/67 (1)	American plum line pattern ilarvirus, <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 157–160
PM 7/68 (1)	<i>Eotetranychus lewisi</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 161–163
PM 7/69 (1)	<i>Lepidosaphes ussuriensis</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 165–166
PM 7/70 (1)	<i>Maconellicoccus hirsutus</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 167–169
PM 7/71 (1)	<i>Opogona sacchari</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 171–173
PM 7/72 (1)	<i>Tecia solanivora</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 175–178
PM 7/73 (1)	<i>Gymnosporangium</i> spp. (non-European) <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 441–446
PM 7/74 (1)	<i>Popillia japonica</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 447–450
PM 7/75 (1)	<i>Toxoptera citricidus</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>36</b> , 451–456
PM 7/76 (4)	Use of EPPO diagnostic protocols, <i>Bulletin OEPP/EPPO Bulletin</i> <b>47</b> , 7–9
PM 7/77 (2)	Documentation and reporting on a diagnosis, <i>Bulletin OEPP/EPPO Bulletin</i> <b>46</b> , 237–238
PM 7/78 (1)	<i>Verticillium albo-atrum</i> & <i>V. dahliae</i> on hop, <i>Bulletin OEPP/EPPO Bulletin</i> <b>37</b> , 528–535
PM 7/79 (2)	Grapevine flavescence dorée phytoplasma, <i>Bulletin OEPP/EPPO Bulletin</i> <b>46</b> , 78–93
PM 7/80 (1)	<i>Xanthomonas oryzae</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>37</b> , 543–553
PM 7/81 (1)	Cucumber vein yellowing virus (Ipomovirus), <i>Bulletin OEPP/EPPO Bulletin</i> <b>37</b> , 554–559
PM 7/82 (1)	<i>Margarodes prieskaensis</i> , <i>Margarodes vitis</i> & <i>Margarodes vredendalensis</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>37</b> , 560–570
PM 7/83 (1)	<i>Rhynchophorus ferrugineus</i> & <i>Rhynchophorus palmarum</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>37</b> , 571–579
PM 7/84 (1)	Basic requirements for quality management in plant pest diagnosis laboratories, <i>Bulletin OEPP/EPPO Bulletin</i> <b>37</b> , 580–588
PM 7/85 (2)	<i>Plasmopara halstedii</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>44</b> , 350–359
PM 7/86 (1)	<i>Diaporthe vaccinii</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>39</b> , 18–24
PM 7/87 (2)	<i>Ditylenchus destructor</i> and <i>Ditylenchus dipsaci</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>47</b> , 401–419
PM 7/88 (1)	<i>Radopholus similis</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>38</b> , 374–378
PM 7/89 (2)	<i>Heterodera glycines</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>48</b> , 64–77
PM 7/90 (1)	<i>Anisogramma anomala</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>39</b> , 293–297
PM 7/91 (1)	<i>Gibberella circinata</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>39</b> , 298–309
PM 7/92 (1)	<i>Gremmeniella abietina</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>39</b> , 310–317
PM 7/93 (1)	<i>Melampsora medusae</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>39</b> , 328–336
PM 7/94 (1)	<i>Hirschiella</i> spp, <i>Bulletin OEPP/EPPO Bulletin</i> <b>39</b> , 369–375
PM 7/95 (2)	<i>Xiphinema americanum sensu lato</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>47</b> , 198–210
PM 7/96 (1)	<i>Xylophilus ampelinus</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>39</b> , 403–412
PM 7/97 (1)	Immunofluorescence test, <i>Bulletin OEPP/EPPO Bulletin</i> <b>39</b> , 413–416
PM 7/98 (2)	Specific requirements for Laboratories preparing accreditation for plant pest diagnostic activity. <i>Bulletin OEPP/EPPO Bulletin</i> <b>44</b> , 117–147
PM 7/99 (1)	<i>Clavibacter michiganensis</i> subsp. <i>insidiosus</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>40</b> , 353–364
PM 7/100 (1)	Rep-PCR tests for the identification of bacteria, <i>Bulletin OEPP/EPPO Bulletin</i> <b>40</b> , 365–368
PM 7/101 (1)	ELISA tests for plant pathogenic bacteria, <i>Bulletin OEPP/EPPO Bulletin</i> <b>40</b> , 369–372
PM 7/102 (1)	<i>Curtobacterium flaccumfaciens</i> pv. <i>flaccumfaciens</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>41</b> , 320–328
PM 7/103 (2)	<i>Meloidogyne enterolobii</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>46</b> , 109–201
PM 7/104 (1)	<i>Ceratitidis capitata</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>41</b> , 340–346
PM 7/105 (1)	<i>Ceratitidis cosyra</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>41</b> , 347–351
PM 7/106 (1)	<i>Sternonchetus mangiferae</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>41</b> , 352–356
PM 7/107 (1)	<i>Rhagoletis completa</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>41</b> , 357–362
PM 7/108 (1)	<i>Paysandisia archon</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>41</b> , 363–368
PM 7/109 (2)	<i>Epitrix cucumeris</i> , <i>E. papa</i> , <i>E. subcristata</i> , <i>E. tubensis</i> . <i>Bulletin OEPP/EPPO Bulletin</i> <b>47</b> , 10–17
PM 7/110 (1)	<i>Xanthomonas</i> spp. ( <i>Xanthomonas evvesicatoria</i> , <i>Xanthomonas gardneri</i> , <i>Xanthomonas perforans</i> , <i>Xanthomonas vesicatoria</i> ) causing bacterial spot of tomato and sweet pepper. <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 7–20
PM 7/111 (1)	<i>Fusarium foetens</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 68–80
PM 7/112 (1)	<i>Phytophthora kernoviae</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 81–83
PM 7/113 (1)	Pepino mosaic virus, <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 94–104
PM 7/114 (1)	<i>Bactrocera zonata</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 412–416
PM 7/115 (1)	<i>Drosophila susukii</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 417–424
PM 7/116 (1)	<i>Tetranychus evansi</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 425–430
PM 7/117 (1)	<i>Hymenoscyphus pseudoalbidus</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 449–461
PM 7/118 (1)	Tomato chlorosis virus and Tomato infectious chlorosis virus, <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 462–470
PM 7/119 (1)	Nematode extraction, <i>Bulletin OEPP/EPPO Bulletin</i> <b>43</b> , 471–495
PM 7/120 (1)	<i>Pseudomonas syringae</i> pv. <i>actinidiae</i> , <i>Bulletin OEPP/EPPO Bulletin</i> <b>44</b> , 360–375
PM 7/121 (1)	‘ <i>Candidatus Liberibacter africanus</i> ’, ‘ <i>Candidatus Liberibacter americanus</i> ’ and ‘ <i>Candidatus Liberibacter asiaticus</i> ’ <i>Bulletin OEPP/EPPO Bulletin</i> <b>44</b> , 376–389
PM 7/122 (1)	Guidelines for the organization of interlaboratory comparisons by plant pest diagnostic laboratories, <i>Bulletin OEPP/EPPO Bulletin</i> <b>44</b> , 390–399

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PM 7/123 (1)	<i>Phytophthora lateralis</i> , <i>Bulletin OEPP/EPPO Bulletin 45</i> , 397–409
PM 7/124 (1)	<i>Spodoptera littoralis</i> , <i>Spodoptera litura</i> , <i>Spodoptera frugiperda</i> , <i>Spodoptera eridania</i> , <i>Bulletin OEPP/EPPO Bulletin 45</i> , 410–444
PM 7/125 (1)	ELISA tests for viruses, <i>Bulletin OEPP/EPPO Bulletin 45</i> , 445–449
PM 7/126 (1)	Electron microscopy in diagnosis of plant viruses, <i>Bulletin OEPP/EPPO Bulletin 45</i> , 450–453
PM 7/127 (1)	<i>Acidovorax citrulli</i> , <i>Bulletin OEPP/EPPO Bulletin 46</i> , 444–462
PM 7/128 (1)	<i>Xanthomonas axonopodis</i> pv. <i>allii</i> , <i>Bulletin OEPP/EPPO Bulletin 46</i> , 429–443
PM 7/129 (1)	DNA barcoding as an identification tool for a number of regulated pests, <i>Bulletin OEPP/EPPO Bulletin 46</i> , 501–537
PM 7/130 (1)	Guideline on the authorization of laboratories to perform diagnostic activities for regulated pests, <i>Bulletin OEPP/EPPO Bulletin 46</i> , 538–540
PM 7/131 (1)	Guidelines on the main tasks of Reference Laboratories for official plant pest diagnostics, <i>Bulletin OEPP/EPPO Bulletin 47</i> , 441–442

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Some of the Standards result from a different drafting and consultation procedure. They are the output of the DIAGPRO Project of the Commission of the European Union (no. SMT 4-CT98-2252). This project involved four ‘contractor’ diagnostic laboratories (in England, the Netherlands, Scotland, Spain) and 50 ‘inter-comparison’ laboratories in many European countries (within and outside the European Union), which were involved in test performance studies for tests in the draft protocols. The DIAG-

PRO project was set up in full knowledge of the parallel activity of the EPP0 Working Party on Phytosanitary Regulations in drafting diagnostic protocols, and covered regulated pests which were for that reason not included in the EPP0 programme. The DIAGPRO protocols have been approved by the Council of EPP0 as EPP0 Standards in series PM 7. They will in future be subject to review by EPP0 procedures, on the same terms as other members of the series.