

**Animal and Plant Health Agency**

# **EU certification scheme fruit plants**

## **Explanatory guide to top fruit**

*Cydonia, Malus, Prunus, Pyrus*

## **Mother trees Pre-basic, Basic 1, Basic 2 and Certified categories**

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# 1. Introduction

This document is a guide to Top Fruit certification taken from the implementation of Council Directive 2008/90/EC and its Commission Implementing Directives 2014/96/EC, 2014/97/EC and 2014/98/EC.

# 2. Applications

The scheme is open to any grower in England and Wales who can meet the general conditions for entry and comply with the specific conditions of entry. Applications for entry of material to be submitted through the approved administrator, presently the Nuclear Stock Association Limited. Visit <http://nsa-plants.co.uk>

Growers will need to apply to APHA and be registered to issue Plant Passports.

# 3. Labelling / sealing / supplier and variety registration

Refer to separate documents covering labelling, sealing, supplier and variety registration.

# 4. Grades and stock eligibility

GRADE	PARENT STOCK
Pre-basic	Candidate pre-basic mother plants
Basic 1	Pre-basic
Basic 2	Pre-basic, Basic 1
Certified	Pre-basic, Basic 1, Basic 2

## For new Mother Trees

### Basic 1

Mother trees shall be budded or grafted with scion wood from an approved source of Pre-basic category. The rootstock shall also be Pre-basic category.

### Basic 2

Mother trees shall be budded or grafted with scion wood from Basic 1 category. The rootstock shall be Basic 1 category.

## **Certified**

Mother trees shall be budded or grafted with scion wood from Basic 1 or Basic 2. The rootstock shall be Basic 1, Basic 2 or Basic 3.

### **For Established Mother Trees**

**Basic 1:** Basic 1 in the previous year.

**Basic 2:** Basic 2 or Basic 1 in the previous year.

**Certified:** Basic 1, Basic 2 or Certified in the previous year.

## **5. Soil sampling requirements**

Application for soil sampling should be made through the approved administrator.

Growers can select sites but are advised to consult their local APHA Plant Health & Seeds Inspector if in doubt regarding the eligibility of a proposed field.

### ***Cydonia, Malus, Pyrus***

#### **Basic 1, Basic 2 and Certified**

Soil Sampling not required.

### ***Prunus avium, P. cerasus***

#### **Basic 1, Basic 2**

Soil sampling of the proposed field in advance of planting required for freedom from nematodes:

*Longidorus attenuatus*

*Longidorus elongatus*

*Longidorus macrosoma*

*Xiphinema diversicaudatum*

### ***Prunus domestica, P. persica and P. salicina***

#### **Basic 1, Basic 2**

Soil sampling of the proposed field in advance of planting required for freedom from nematodes:

*Longidorus attenuatus*

*Longidorus elongatus*

*Xiphinema diversicaudatum*

Fields found to be infested cannot be used for certified stocks.

NB. The soil sampling requirements listed shall not apply where host plant species of the nematodes listed above have not been grown on any proposed production field for at least 5 full years or longer.

The relevant hosts for Basic or Certified mother trees of *Prunus spp.* are: grapevine, *Fragaria spp.*, *Ribes spp.*, *Rubus spp.*, cherry, plum, apricot, peach, almond and Japanese plum and their rootstocks, poplar trees, hops, or elder/elderberry.

***Prunus avium*, *P.cerasus*, *P.domestica*, *P.persica* and *P.salicina***

**Certified** Soil sampling not required

## 6. Isolation distances for field grown material

Minimum isolation distances apply:

### **Plum Pox Hosts:**

50 metres from any other plum pox hosts (incl. ornamentals) not entered for certification.

### **Other *Prunus*:**

10 metres from any other *Prunus spp.* not entered for certification.

### ***Cydonia*, *Malus* and *Pyrus*:**

5 metres from any *Pomoideae* not entered for certification.

Growers should ensure they can meet isolation requirements before planting stocks in new sites.

## 7. Spacing

No minimum for trees of the same variety whether grown as cordons or free standing which originate from the same source.

1 metre between trees whether cordons or free standing:

Of the same variety but different sources

Of different varieties

1.5 metres between rows.

NB. Spacing requirements do not apply to bench-grafted material grown indoors in pots in a soil free medium.

## 8. Identifying stocks

Each tree must be permanently and clearly labelled showing scion, rootstock and year of budding.

## 9. Control of pests and diseases / standards to be met

The control of pests and diseases must be of the highest standard and failure to achieve this will need rectification and may result in a further chargeable inspection prior to certification.

Where a significant mixture is identified and rogueing is impractical certification may be withheld.

### Age of Trees

There is **no maximum age** for Mother Trees at any of the Basic 1, Basic 2 or Certified categories.

### TESTING

However, a representative portion of Mother Trees of Basic 1, Basic 2 and Certified categories will be subject to re-testing over certain time periods dependent upon the crop for freedom from certain pathogens. The relevant pathogens particular to each species are as follows:

### ANNEX II List of viruses

#### ***Cydonia* and *Pyrus*- every 15 years for:**

Apple chlorotic leaf spot virus (ACLSV), Apple stem grooving virus (ASGV), Apple stem pitting virus (ASPV)

#### ***Malus* - every 15 years for:**

Apple chlorotic leaf spot virus (ACLSV), Apple stem grooving virus (ASGV), Apple stem pitting virus (ASPV) and Apple mosaic virus (ApMV)

***Prunus amygdalus* - every 10 years for Basic and every 15 years for Certified for:**

Apricot chlorotic leaf spot virus (ACLSV), Apple mosaic virus (ApMV), Prune dwarf virus (PDV), Prunus necrotic ringspot virus (PNRSV), plus every year if allowed to flower, or every three years if not allowed to flower, for PDV and PNRSV

***Prunus armeniaca* - every 10 years for Basic and every 15 years for Certified for:**

Apricot chlorotic leaf spot virus (ACLSV), Apple mosaic virus (ApMV), Apricot latent virus (ApLV), Prune dwarf virus (PDV), Prunus necrotic ringspot virus (PNRSV), plus every year if allowed to flower, or every three years if not allowed to flower, for PDV and PNRSV

***Prunus avium* and *Prunus cerasus* - every 10 years for Basic and every 15 years for Certified for:**

Apricot chlorotic leaf spot virus (ACLSV), Apple mosaic virus (ApMV), Arabis mosaic virus (ArMV), Cherry green ring mottle virus (CGRMV), Cherry leaf roll virus (CLRV), Cherry necrotic rusty mottle virus (CNRMV), Little cherry virus 1 and 2 (LChV1, LChV2), Cherry mottle leaf virus (ChMLV), Prune dwarf virus (PDV), Prunus necrotic ringspot virus (PNRSV), Raspberry ringspot virus (RpRSV), Strawberry latent ringspot virus (SLRSV), Tomato black ring nepovirus (TBRV), plus every year if allowed to flower, or every three years if not allowed to flower, for PDV and PNRSV.

***Prunus domestica* and *P. salicina*: every 10 years for Basic and every 15 years for Certified for:**

Apricot chlorotic leaf spot virus (ACLSV), Apple mosaic virus (ApMV), Myrobalan latent ringspot virus (MLRSV), Prune dwarf virus (PDV), Prunus necrotic ringspot virus (PNRSV), plus every year if allowed to flower, or every three years if not allowed to flower, for PDV and PNRSV.

***Prunus persica*: every 10 years for Basic and every 15 years for Certified for:**

Apricot chlorotic leaf spot virus (ACLSV), Apple mosaic virus (ApMV), Apricot latent virus (ApLV), Prune dwarf virus (PDV), Prunus necrotic ringspot virus (PNRSV), Strawberry latent ringspot virus (SLRSV), Prunus latent mosaic viroid (PLMVd)

[Exemption for viroids only applies to Cydonia, Pyrus, Malus], plus every year if allowed to flower, or every three years if not allowed to flower, for PDV and PNRSV, plus every year if allowed to flower for Prunus latent mosaic viroid (PLMVd).

## **INSPECTION**

Pre-basic, Basic and Certified plant material shall be visually free from pests and diseases in Annex 1 Part A. Freedom can be met by removal of infected plants and / or by biological, physical or chemical treatments if applicable.

## Annex I

Annex I Part A	Pre-basic, Basic and Certified
<p><b><i>Cydonia</i></b></p> <p><b><i>Malus</i></b></p> <p><b><i>Pyrus</i></b></p>	<p><b>Insects</b></p> <p><i>Eriosoma lanigerum</i></p> <p><i>Psylla spp.</i></p> <p><b>Nematodes</b></p> <p><i>Meloidogyne hapla</i></p> <p><i>Meloidogyne javanica</i></p> <p><i>Pratylenchus penetrans</i></p> <p><i>Pratylenchus vulnus</i></p> <p><b>Fungi</b></p> <p><i>Armillariella mellea</i></p> <p><i>Chondrostereum purpureum</i></p> <p><i>Glomerella cingulata</i></p> <p><i>Pezicula alba</i></p> <p><i>Pezicula malicorticis</i></p> <p><i>Nectria galligena</i></p> <p><i>Phytophthora cactorum</i></p> <p><i>Roessleria pallida</i></p> <p><i>Verticillium dahlia</i></p> <p><i>Verticillium albo-atrum</i></p> <p><b>Bacteria</b></p> <p><i>Agrobacterium tumefaciens</i></p> <p><i>Pseudomonas syringae pv.syringae</i></p>

<b><i>Prunus amygdalus</i></b>	<b>Insects</b>
<b><i>Prunus armeniaca</i></b>	<i>Pseudaulacaspis pentagona</i>
<b><i>Prunus domestica</i></b>	<i>Quadraspidiotus perniciosus</i>
<b><i>Prunus persica</i></b>	<b>Nematodes</b>
<b><i>Prunus salicina</i></b>	<i>Meloidogyne arenaria</i>
	<i>Meloidogyne javanica</i>
	<i>Meloidogyne incognita</i>
	<i>Pratylenchus penetrans</i>
	<i>Pratylenchus vulnus</i>
	<b>Fungi</b>
	<i>Phytophthora cactorum</i>
	<i>Verticillium dahlia</i>
	<b>Bacteria</b>
	<i>Agrobacterium tumefaciens</i>
	<i>Pseudomonas syringae</i> pv. <i>morsprunorum</i>
	<i>Pseudomonas syringae</i> pv. <i>syringae</i> (on <i>P. armeniaca</i> )
	<i>Pseudomonas viridiflava</i> ( on <i>P. armeniaca</i> )

## 10. Roguing

Limited roguing or removal of affected parts or pesticide treatments in order to meet the requirements is permissible after inspection by APHA Plant Health & Seeds Inspectors, provided records are kept.



## 11. Gapping up

Gapping up is permissible providing that the material used is eligible and prior approval from APHA Plant Health has been obtained. Growers must keep records and make them available if requested to do so.

## 12. Number of inspections

Basic 1, Basic 2 and Certified

One inspection for all categories. Usually during late July or early August.

## 13. Quarantine pest & diseases

Growers who become aware of or suspect the presence of any quarantine pest or disease on their premises must immediately notify their local APHA Plant Health & Seeds Inspector.

Requirements for regular 3-yearly official re-testing of some *Prunus* spp. for the quarantine pest Plum pox virus will need to be carried out and APHA inspectors will provide information on this requirement.

## 14. Record keeping (critical points plan)

During the production of propagating material and fruit plants the supplier must maintain relevant information to monitor the key points in the production process.

These include:

- Location and number of plants
- Timing of their cultivations
- Propagation operations
- Packaging, storage and transportation operations.

The information should remain available for at least three years and made available to PHSI upon request.

Explanatory guide to top fruit *Cydonia*, *Malus*, *Prunus* and *Pyrus*

Mother trees Pre-basic, Basic 1, Basic 2 and Certified categories (12/17)



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