

Integrated Production Regulations 2024

Technical growing standards for Apple/Plum tree

Preserving Natural Agro-ecosystem

No specific constraints, except considering the characteristics in relation to the needs of the tree crops. However, reduce the use of synthetic chemicals while safeguarding key beneficial organisms, thereby promoting natural pest control measures. It is mandatory to adopt at least one of the following ecological options:

- 1) Use of beneficial organisms (safeguarding and documented assessments on beneficial insect fauna present).
- 2) Maintenance of fallow areas as refuge zones for beneficial organisms, equivalent to at least 5% of the farm area (including farm roads).
- 3) Planting hedgerows (prohibition of using species susceptible to fire blight) and/or maintenance of natural habitats.
- 4) Installation of nests or other shelters for beneficial organisms.
- 5) Alternating mowing of inter-rows from post-flowering to pre-harvest.

Choice of cultivars and planting materials

- 1) The use of genetically modified organisms (GMOs) is not permitted.
- 2) For new plantings, if available, ""certified"" propagation material must be used, prioritizing varieties resistant and/or tolerant to major plant diseases, and capable of offering extensive guarantees in terms of quality.
- 3) In the absence of ""certified"" material, category ""C.A.C."" material must be used. The image provided contains text in Italian about certain agricultural obligations. Here is the translation of the text:

Soil preparation before transplant or seedlings

No specific constraints, only advices. However:

- 1) After uprooting a tree crop, before replanting with the same species, it is recommended to let the soil rest. To minimize potential negative effects of replanting, it is advisable to:
 - a) Remove residues from the previous crop's roots.
 - b) Place the new plants in a different position than the previous ones.
 - c) Use rootstocks suitable for the specific cultivation environment.

In case of significant soil preparation and arrangement interventions (such as digging, earth movement, deep ripping, etc.), prepare an impact assessment on fertility that also indicates any amending and corrective interventions. Lastly, in new plantings, the density must not exceed 5,000 plants per hectare.

Sowing, transplanting and planting

No specific constraints, only advices. However, in case of significant soil preparation and arrangement interventions (such as digging, earth movement, deep ripping, etc.), prepare an impact assessment on fertility that also indicates any amending and corrective interventions.

Soil management and agronomic practices

- 1) In hillside and mountainous plots with an average slope greater than 30%, only spot treatments or those aimed solely at removing residues of the previous tree planting are allowed. In regular management, inter-row vegetation can also include managed spontaneous vegetation with mowing.
- 2) In plots with an average slope between 10% and 30%, only spot treatments are allowed, and inter-row vegetation, including managed spontaneous vegetation with mowing, is mandatory.
- 3) In plain areas, winter cover of inter-row vegetation, including spontaneous vegetation, is mandatory to limit nutrient leaching.
- 4) In areas where inter-row vegetation is mandatory, it must be implemented starting from the second year after planting.
- 5) The use of herbicides in inter-rows is prohibited.
- 6) Along the row, operations, the use of biodegradable or potentially recyclable mulching materials, or chemical weed control are allowed within the limitations specified in the ""Technical Standards for Phytosanitary Defence and Weed Control.""
- 7) Seeding and incorporation of green manure are permissible both in plain areas and in situations with slopes ranging from 10% to 30%; in the latter case, however, green manure must be done in alternate rows.
- 8) In areas where inter-row vegetation is mandatory, localized application of fertilizers is allowed.

Management of the tree and fruit production

Mostly active substances available throughout Italian regional directives:

- 6-Benzyladenine 1,9% (20 g/l)
- Etefon 39,6 (480g/l)
- Gibberellin (A4 - A7) + 6-Benzyladenine
- Gibberellin (A4 - A7) 10%"
- Metamitron
- NAA 3,3% (37 g/l)
- NAA 7,5% (84 g/l)
- NAD 8,4%
- Proexadione calcium 10%"
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Fertilization

The farm must have information regarding the physical and chemical characteristics of the soil. The farm is required to prepare an analytical fertilization plan. Pre-plant fertilization: no inputs of mineral nitrogen fertilizers are allowed before planting the plants. Maintenance fertilization (1st and 2nd year): only localized applications of fertilizers are allowed. The quantities of macroelements distributed must be reduced compared to the maximum dose expected during the production phase. For mineral or synthetic nitrogen inputs exceeding 60 kg/ha, a single administration is not allowed. The use of fertilizers with synthetic, mineral, or organic nitrogen is not permitted before the ""pink bud"" phenological phase and after October 15th. Autumnal distributions of less than 40 kg/ha of synthetic, mineral, or organic nitrogen are allowed, and such interventions must be carried out before October 15th.

Irrigation

Flow irrigation is not allowed. The company must record the following: date and volume of irrigation; rainfall data. Additionally, for each irrigation event, it must adhere to the maximum volume prescribed based on the inferred soil type. Obligations:

1) Prepare an irrigation plan using one of the three methods proposed in the ""Technical Agronomic Standards - General Part"":

- a) Water balance sheets (see detailed explanation*)
- b) Computer support
- c) Specific company supports

2) Alternatively, record the requirements specified in the ""mandatory basic method"" of Annex 2 - Guidelines for integrated production irrigation in dedicated sheets and comply with the maximum irrigation volumes listed in the table below.

Sometimes, runoff irrigation is not allowed.

Disease, pest, and weed management

The chemical soil sterilization is not permitted. The only allowed active substances and their limitation of use are listed in appropriate table on Integrated Weed Management (Specific for each region). Concerning disease and pest's management allowed active substances and their limitation of use are listed in appropriate table on Integrated Pests Management (Specific for each region). Concerning herbicides, the maximum application volumes fixed per year are listed in Regional online Tables, with reference to the specific formulations permitted. Regardless of the adversity, a maximum of two fungicide applications per year is permitted.

Latin name	Active substances	Latin name	Active substances	Latin name	Active substances
Apple scab	Dithianon + Potassium phosphonate Bacillus subtilis Potassium bicarbonate Boscalid Captan Ciprodinil Difenconazole Dithianon Dodine Fluazinam Fluopyram Fluxapyroxad Fosetil A Potassium phosphonate Laminarin Mefentrifluconazole Metiram Sweet orange essential oil Penconazole Penthiopyrad Calcium polysulfide Copper products Pyraclostrobin Pyrimethanil Tebuconazole Tetraconazole Sulphur	Apple powdery mildew	Potassium bicarbonate Boscalid Bupirimate Cyflufenamide Difenconazole Fosetyl-Al Fluopyram Fluxapyroxad Laminarin Mefentrifluconazole Sweet orange essential oil Penconazole Pyraclostrobin Pyraclostrobin Tebuconazole Tetraconazole Trifloxystrobin Sulfur	Fire blight	<i>Bacillus subtilis</i> <i>Bacillus amyloliquefaciens</i> <i>Aureobasidium pullulans</i> Laminarin Calcium prohexadione Acibenzolar-S-metil

Table: main disease and products/substances allowed

Latin name	Active substances	Latin name	Active substances
Grey aphid	oAzadirachtin Pirethrins potassium salts of fatty acids Tao-flavalinate Sulfaxoflor Flupyradifurone Flonicamid Pirimicarb Spirotetramat	Codling moth	Sexual distraction and confusion Granulovirus Nematodes Entomopathogens Tebufenozide Etofenprox Spinetoram Spinosad Acetamiprid Emamectin Chlorantraniliprole
Brown marmorated stink bug	Pyrethrins Potassium salts of fatty acids Acetamiprid Tau-fluvalinate Deltamethrin Etofenprox Lambda-cyhalothrin Flupyradifurone Tebufenozide	Table: main disease and products/substances allowed	

Active substances

Glyphosate
Pelargonic acid
Carfentrazone
Cycloxydim
Clethodim
Diflufenican
Fluazifop-p-butyl
Fluroxypyr
Isoxaben
MCPA
Oxyfluorfen
Pendimethalin
Propaquizafop
Propyzamide
Pyraflufen-ethyl
Quizalofop-p-ethyl
2,4 D1

Table: herbicides allowed in IPM**Harvest**

The timing and methods of harvesting must be chosen according to the species and, if applicable, the variety, and with reference to the final destination of the products, with the aim of maintaining the best characteristics of the products. In any case, the products must always be identified to ensure traceability, making them easily distinguishable from other products obtained with different production methods.

Post-harvest obligations. It is specified that the provisions related to the post-harvest phase (e.g., separation and identification of lots, traceability, etc.), contained in the "Integrated Production Control Plan - adherence management control mode," are binding only to apply the SQNPI (National Integrated Production Quality System) label to productions.

