

Suitable European plum cultivars for organic orchards establishment

Problem

Organic plum production is affected by a variety of factors: unmarketable cultivar characteristics (flavour, soluble solids content, stone adherence), reduced storage, small size and low resistance to fungal diseases and Plum Pox Virus (PPV).

Solution

We propose a list of robust cultivars suitable for plum organic orchards establishment.

Benefits

Choosing the best height/size plum cultivars will give a stable yield of high-quality and good flavour fruits harvested in prolonged periods from August to November and suitable for fresh consumption.

Applicability box

Theme

Crop production, Temperate fruits

Keywords

Disease tolerance, fruit quality, flavour

Context

Plum production areas, temperate regions

Application time

Orchard establishment

Practical recommendations

- High-quality European plum cultivars suitable for organic production:
 - Very early ripening: Ruth Gersteter
 - Early ripening: Katinka
 - Middle early ripening: Čačanska lepotica (Picture 1), Franzi, Opal
 - Middle late ripening: Jojo, Toptaste (Picture 2), Čačanska rodna, Gabrovska
 - Late ripening: Jofela, Joganta, Moni, Haganta (Picture 3), Stanley
 - Very late ripening: Presenta, Jolina
- Combine PPV hypersensitive resistance cultivars (Jojo, Jofela, Joganta, Jolina, Moni) with PPV hypersensitive resistance rootstocks (Docera 6, Dospina 235) to prevent infection.
- Check with your advisors about the ripening time of the described cultivars and if they fit your climatic conditions.



Picture 1: Čačanska lepotica – very high and regular production, self-fertile cultivar.
Photo: Tomáš Jan, UKZUZ, CZ.



Picture 2: Toptaste – mature fruits remain on the tree extend thus harvest.
Photo: Tomáš Jan, UKZUZ, CZ.



Picture 3: Haganta – late ripening cultivar, excellent aromatic taste, long shelf life.
Photo: Tomáš Jan, UKZUZ, CZ.

- Aim for a wide ripening period, high and regular cropping, fruit size and fruit quality.
- Extend the harvesting period by introducing new cultivars with ripening from the end of August to the beginning of October.
- Self-fertile and partly self-fertile cultivars provide more regular yields and are very good pollinators for other cultivars.
- Most of the new large-fruited cultivars have excellent taste and fruit quality with a higher sugar content than 21°Brix.
- Consumers prefer new plum cultivars with attractive yellow/orange flesh and lose stone adherence.
- Large-fruited plum cultivars with high market quality can lead to more efficient labour costs and support incomes from established organic orchards.

Further information

Further reading:

- Hartmann, W., Neumüller, M. 2013. The next generation of European plum cultivars resistant to Plum pox virus. Acta Hort., 985, 149–154
- Neumüller, M., Muhlberger, L., Siegler, H. 2013. New rootstocks with resistance to plum pox virus for Prunus domestica and other stone fruit species: The Docera and Dospina rootstock series. Acta Hort. 985, 155-165
- Hartmann, W. 2019. "Sharka-Resistant Plum Hybrids and Cultivars from the Plum Breeding Programme at Hohenheim" Proceedings of the Latvian Academy of Sciences. Section B. Natural, Exact, and Applied Sciences., vol.73, no.3, 2019, pp.226-231.
- Check the Organic Farm Knowledge platform for more practical recommendations.

Weblinks:

- Information on the plum 'Moni@': the gourmet plum with full resistance to Sharka disease

About this practice abstract

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