

Enhancing biodiversity with "Anchor plants" in organic orchards

Problem

Intensively managed orchards often contain only a low diversity of different woody plants and, consequently, a low food supply for beneficial insects other than the fruit tree blossoms.

Solution

Anchor plants increase the biodiversity and structural diversity of woody plants in the orchard. Anchor plants are shrubs planted on one or both ends of each tree row, where the anchors of modern planting scaffolds are located.

Benefits

Additional shrubs/woody plants in the orchard promote flowering and provide food (aphids, flowers, and fruits as winter food) for a variety of insects and birds. The more abundant flowering may also have a positive impact on tourism and landscape attractiveness.

Practical recommendation

Selection of suitable anchor plant species and planting material:

- Select shrubs with a long flowering period and with at least a low to medium nectar supply.
- The flowering period of the selected species should be outside the fruit blossom period.
- When selecting species
 - Avoid host plants of the cherry fruit fly and cherry vinegar fly, runner plants, wood plants susceptible to fire blight, and vectors of the rain spot disease.
 - Select species that have fruits as winter food for birds.
- Shrubs that can be recommended in Germany for use as anchor plants include wild privet (*Ligustrum vulgare*); guelder rose (*Viburnum opulus*), European spindle (*Euonymus europaeus*); and wild roses (*Rosa spp.*).

Implementation

- Protect the plants against browsing by deer and hares.
- Ensure sufficient watering of the new plantings, especially in the first year.
- Plant during the optimal planting period: from late autumn to spring.
- Place the anchor plants at the beginning and/or the end of each row or every second, if possible.

Applicability box

Theme

Crop production, Horticulture, Temperate fruits

Keywords

Plant protection, Biodiversity

Context

Central Europe

Required time

One year

Period of impact

Spring - Autumn

Equipment

Plant Material, e.g. *Ligustrum vulgare*, *Viburnum opulus*, *Euonymus europaeus*, *Rosa spp.*



Picture 1: Fly honeysuckle (*Lonicera xylosteum*)



Picture 2: Guelder rose (*Viburnum opulus*)



Picture 3: Burnet rose (*Rosa pimpinellifolia*)

(Photos: Christina Adolphi, ÖON)

Further reading

Weblinks

- Biodiversity measures in the agricultural landscape (German)
- Biodiversitätsförderung in Obstanlagen, EcoOrchard (German)

Related topics:

- Perennial flower strips – a tool for improving pest control in fruit orchards
- Check the Organic Farm Knowledge platform for more practical recommendations.

About this practice abstract

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