

Pear varieties in organic production

Problem

In Europe, the largest area of pome fruit consists of apple cultivation. Pear is a minor crop, but economically important, and its production is more difficult compared to apple. Belgium, the Netherlands, and Italy are the main producers of organic pear. Currently, a lot of pear varieties are not adapted for organic cultivation.

Solution

Knowledge exchange on the management of different pear varieties is important for the further development of organic pear production. In addition, specific varieties should be developed for organic cultivation. Research on pear varieties and their suitability for organic cultivation will offer more possibilities for organic pear growing.

Applicability box

Theme

Crop production, Temperate fruits

Keywords

Varieties, pear

Context

Europe, organic fruit growing

Period of impact

Lifetime of an orchard, for pear approx. 40-60 years

Benefits

Pear varieties better suited for organic fruit growing lead to an improved yield and quality of organic pears.

Practical recommendation

- The most commonly grown pear varieties in organic orchards across Europe are Conference and Williams, followed by Xenia, Guyot, Kaiser Alexander, Beurre Alexander Lucas, and Forelle. See table 1.
- Some varieties are specific for a country like Guyot in France, and Abate Fetel in Italy.
- Some varieties are named differently across countries like Beurré Bosc (FR)/Bosc Flaschenbirne (DE)/Bosc Kaiser Alexander (IT) and Doyenné Du Comice (NL, BE)/Vereinsdechants (DE).

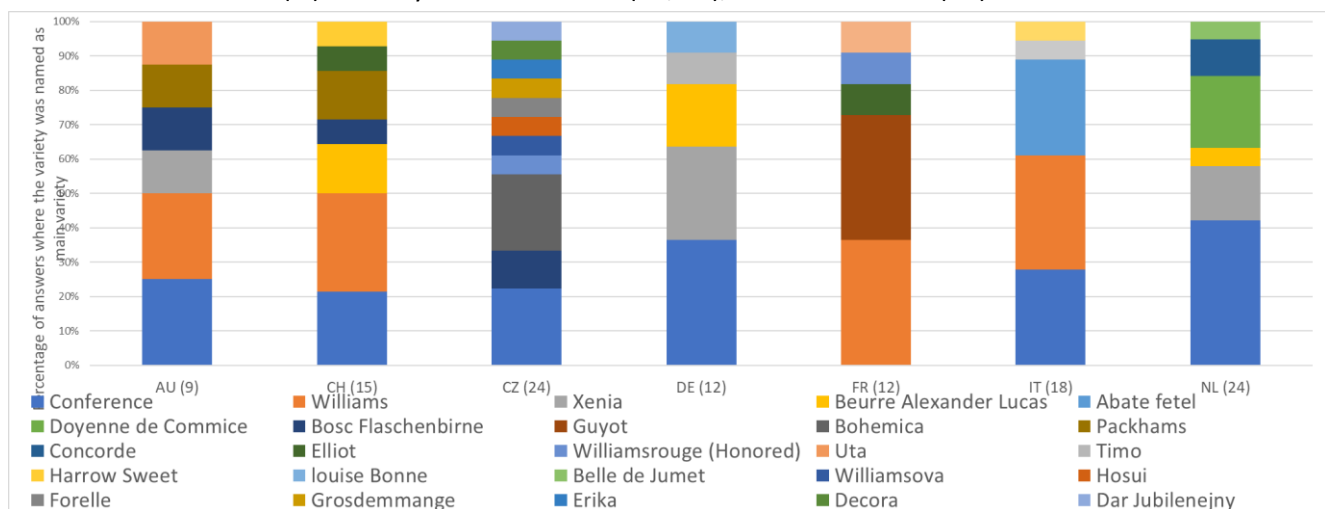
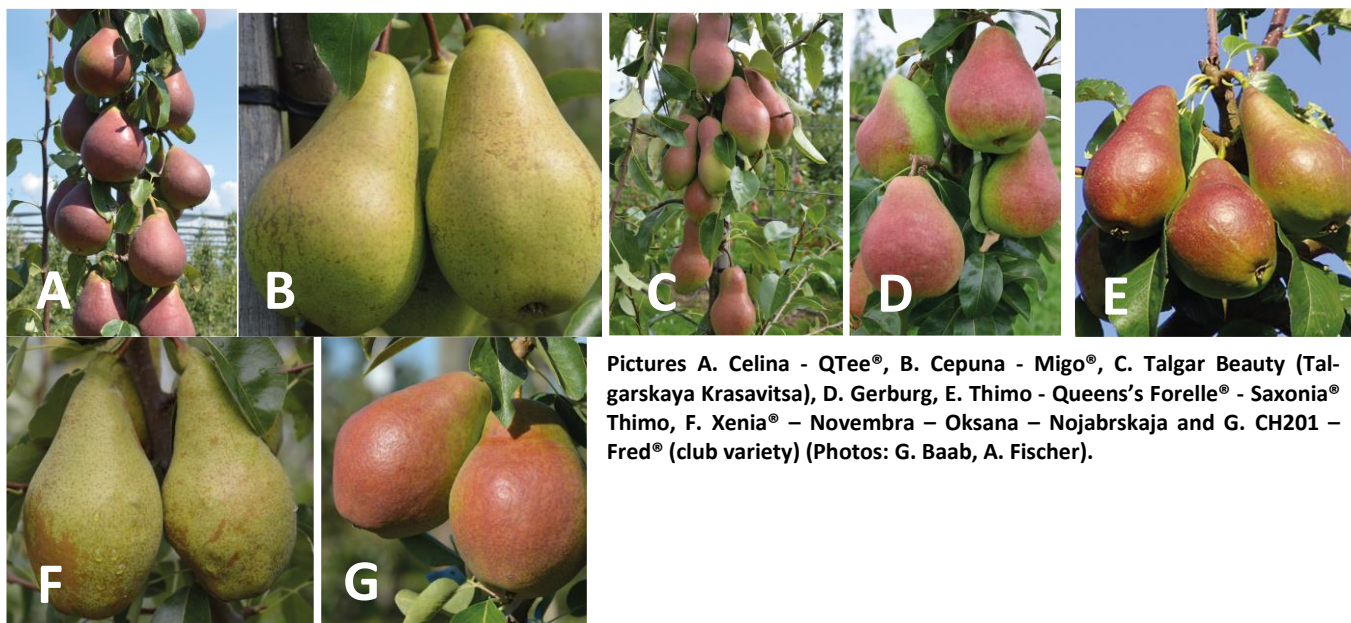


Figure 1. Main pear varieties grown by country (Questionnaire BIOFRUITNET 2020).

- The most important criteria to be considered when planting or breeding a new variety for organic production are pest and disease susceptibility, fruit quality, regular production, storability of the fruits, and tolerance of the tree to variable climate conditions.
- New varieties that could be interesting are (see Figure 1, and Table 1): Celina - QTee® (club variety), Cepuna - Migo® (club variety), Talgar Beauty (Talgarskaya Krasavitsa), Gerburg, Thimo - Queens's Forelle® - Saxonia® Thimo, Xenia® – Novembra – Oksana - Nojabrskaja, CH201 – Fred® (club variety).
- New varieties should be tested under organic conditions.



Pictures A. Celina - QTee®, B. Cepuna - Migo®, C. Talgar Beauty (Tal-garskaya Krasavitsa), D. Gerburg, E. Thimo - Queens's Forelle® - Saxonia® Thimo, F. Xenia® – Novembra – Oksana – Nojabrskaja and G. CH201 – Fred® (club variety) (Photos: G. Baab, A. Fischer).

Table 1. Main characteristics of new pear varieties. Pests and diseases are a general term, some varieties are susceptible to scab, others to Pseudomonas, fire blight (Thimo very susceptible), pear decline, etc. +++ = susceptible/much vigour/good productivity/big size, good taste, ++ = average and + = not susceptible/weak growth/less production/small size. Check the availability of the variety in your country. Some are owned by a company who has the exclusive rights of the variety and/or the brand (Sources: see further reading and PCFruit oral communication).

	Pest and diseases	Vigour	Productivity	Ripening time	Fruitsize	Taste	Storability
Celina - QTee®	++	+++/+	++	wk 1/2 Aug	++	+++	Dec/Jan
Cepuna - Migo®	++	+++	++	end Aug/beg Sept	++/+++	++/+++	April/May
Talgar Beauty	unknown	++/+++	++	wk 1 Sept	+/++	+++	Jan
Gerburg	+++	+++/++	++/+++	wk 1/2 Sept	+++	+++	Jan
Saxonia® Thimo	+++	+++	++	wk 1/2 Sept	++	+++	Dec
Xenia®	++	++	+++	wk 3/4 Sept	+++	+++	June
Fred®	++	+/++	++/+++	wk 2/3 Sept	+/++	++/+++	Feb/March

Further information

Further reading

- Vercammen, J. 2017. European pear varieties. Interpera presentation. https://kp.eufrin.eu/fileadmin/user_upload/documents/172-cce373324518b1e6cda60b3764a43f96.pdf
- Baab, G., Fischer, A. 2020. Neue Birnensorten auf dem Prüfstand. Öko-Obstbau 1-2020. p 4-8 (German)
- Friedli, M., Häseli, A., Stefani, P. 2021. List of apple and pear cultivars for organic production (DE, FR)

Weblinks

- Check the Organic Farm Knowledge platform for more practical recommendations.

About this practice abstract

Publisher: Delphy, Agro Business Park 5
6708 PV NE-Wageningen
+31-317491519, <https://delphy.nl>

Author: Gerjan Brouwer

Contact: g.brouwer@delphy.nl



Review: Ilsa Phillips (IFOAM Organics Europe), Lauren Dietemann (FiBL)

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