




Why plant breeding keeps the EU busy

Presentation for OEYE workshop



Quiz (1/3)

- If you are a farmer, can you just plant any seed that you would like for your production?
- Answer: No



Quiz (2/3)

- How many applications for new varieties were handed in in 2021 at the European plant variety office (fruit, agricultural, vegetables)?
- Answer: 2025



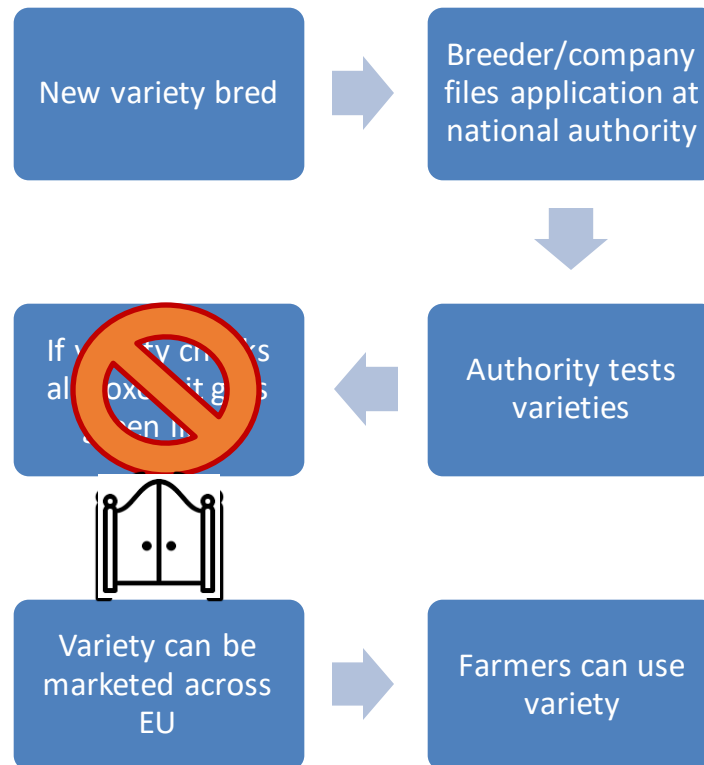
Quiz (3/3)

- How many registered applications are there for potato (*Solanum tuberosum*) at the European plant variety office?
- Answer: [CPVO \(plantvarieties.eu\)](http://cpvo.plantvarieties.eu)



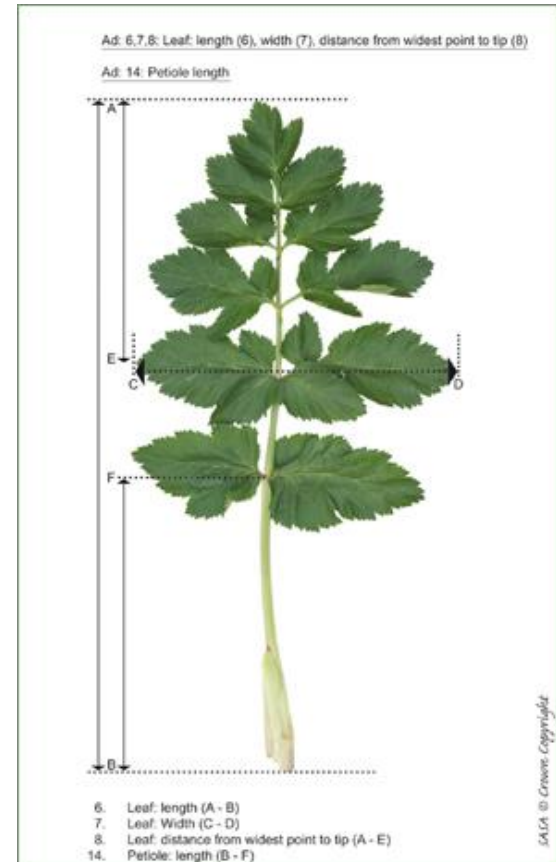
The seed market in the EU

- There is a gatekeeper for which varieties/cultivars are used in farming:



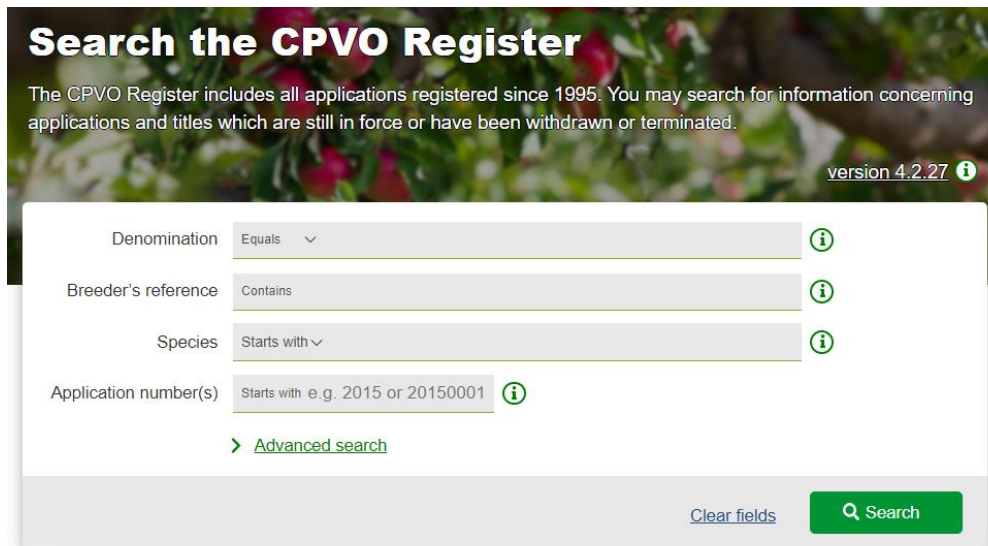
The seed market in the EU

- Criteria that are applied to varieties are, for example:
 - Yield performance
 - Uniformity, including phenotypical characteristics
 - Stability of plant characteristics over time




The seed market in the EU







- What is the idea behind them?
 - Overview on all varieties available (catalogues).
 - Limit access to the market to protect farmers.
 - Steer breeding towards developing varieties that are 'valuable'.
 - Currently: focus on agronomic performance
 - Future: sustainability goals? Climate change adaptation?




Search the CPVO Register

The CPVO Register includes all applications registered since 1995. You may search for information concerning applications and titles which are still in force or have been withdrawn or terminated.

version 4.2.27 

Denomination	Equals 	
Breeder's reference	Contains	
Species	Starts with 	
Application number(s)	Starts with e.g. 2015 or 20150001 	

[> Advanced search](#)

[Clear fields](#) 

The seed market in the EU

- What does this imply for breeders?
 - Some varieties might not qualify and cannot be marketed (sold) to farmers.
 - Adapt breeding goals and activities to those criteria
 - > double edged sword.



The regulated seed market in the EU

- What does this imply for the seeds that are available to European farmers?

IN

Varieties that pass classical criteria/tests

Varieties that pass adapted criteria for organic

Varieties for which special rules apply - with restrictions

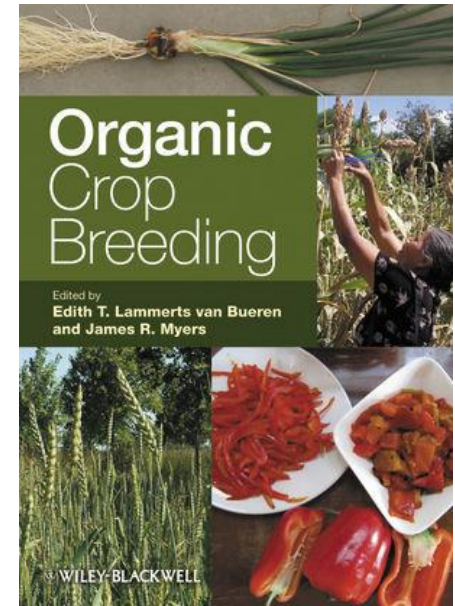
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Cultivars that do not fit into categories



Organic breeding

- Why organic breeding?
 - Seed is integral part of organic production process
 - Therefore, seed must be produced under certified organic conditions as well
 - Breeding, so the process of developing new varieties is often happening in conventional conditions
 - Breeding under organic conditions is logical next step, to make sure that we breed varieties that are adapted to the organic conditions at an early stage already.
 - Organic breeding was included in the new Organic Regulation



Organic breeding

- Why define it EU-wide?
 - Standards of organic production are universal in the EU
 - > minimum standard of how organic produce is produced.
 - Common understanding of what organic breeding defines
 - With involvement of the sector, a definition was agreed upon at EU level.



Organic breeding

- What does the definition include?
 - Reflects that in organic production, high uniformity is not necessarily the most important criterion but other attributes
 - > high genetic and phenotypical diversity possible.
 - Conditions of breeding -> organic

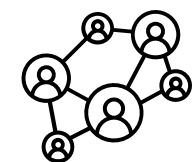


Organic breeding

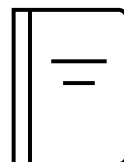
- Goals of breeding:
 - Genetic diversity
 - Natural reproductive ability (seeds result from natural pollination of parent plant; self/insects e.g.; usually similar to parent plant in opposition to hybrid seeds-> seed saving)
 - Agronomic performance (yield, (nutritional) quality)
 - Disease resistance (plant mechanisms to fight disease)
 - Adaptation to local soil & climate conditions (not all varieties grow everywhere)



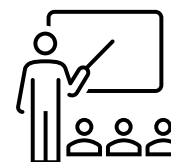
Our work in Brussels



Members

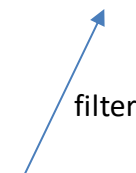
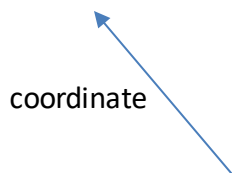


Position Papers

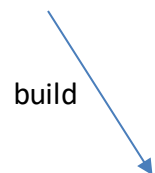
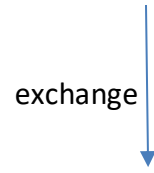


Communication

Internal



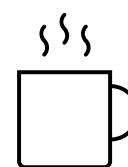
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Legal texts

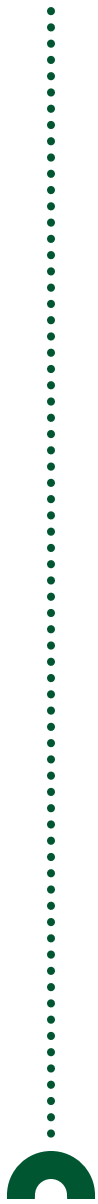


Institutions



Relationships

External



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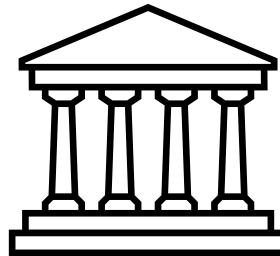
- Why is it important for organic movement to work on EU seed rules?
 - Availability of suitable seeds crucial to development of organic agriculture.
 - Rules must be workable for organic producers from a production and bureaucratic perspective.
 - Since organic systems are different, organic has its own needs and needs own voice.
 - EU-wide project on development of organic seed and breeding (LIVESEEDing).



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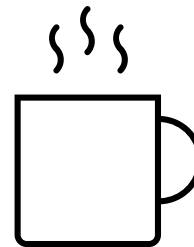
Commission



Member
States



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Questions?



Thank you for your attention!