Welcome

24th of February 2025,

Freya SCHÄFER (FiBL DE)

LiveSeeding

Co-funded by the European Union

Funded by the European Union, the Swiss State Secretariat for Education, Research and Innovation (SERI) and UK Research and Innovation (UKRI). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or REA, nor SERI or UKRI.

UK Research and Innovation

Supply and demand of organic seeds in Europe

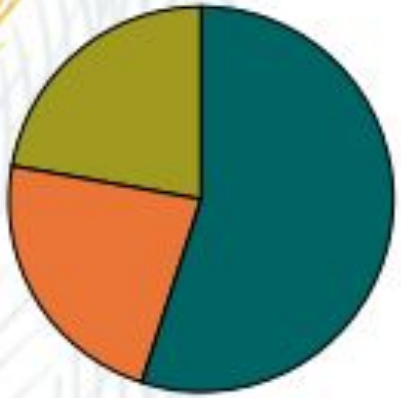
In general, the organic seeds and planting materials demand is growing

- Organic framing area is growing (farm-to-fork strategy aims for 25% by 2030, but 15 % by 2030 seems to be more realistic)
- Stricter rules to grant a derogation for non-organic seed
- Vegetative planting material regulated via 2018/848

- For some crops and some regions there are still large gaps in organic seed supply

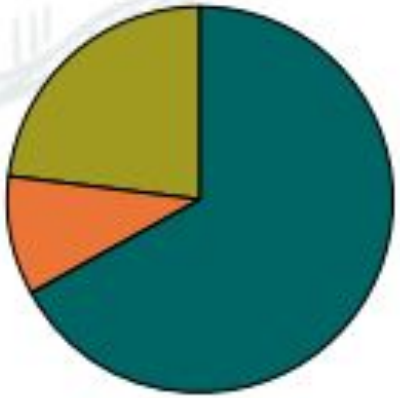
NON-ORGANIC SEED PURCHASED | ORGANIC FARM SAVED SEED | ORGANIC SEED PURCHASED

Northern Europe



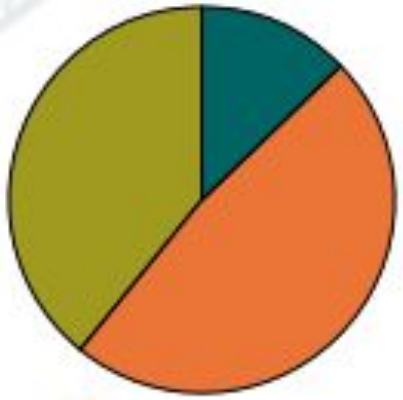
22%
23%
55%

Central Europe



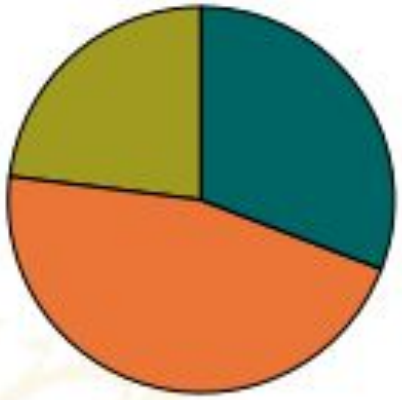
10%
23%
67%

Eastern Europe



48%
39%
13%

Southern Europe



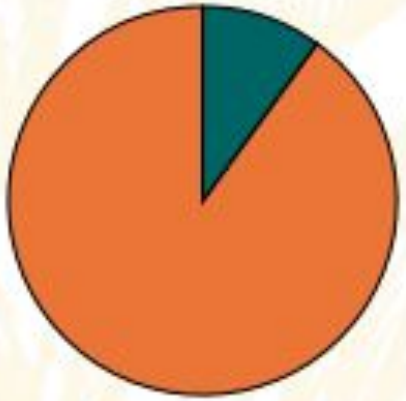
46%
23%
31%

WHEAT

LiveSeeding

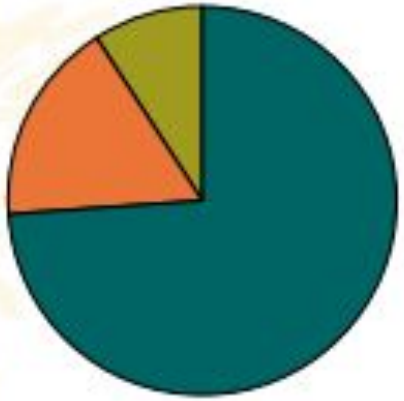
NON-ORGANIC SEED PURCHASED | ORGANIC FARM SAVED SEED | ORGANIC SEED PURCHASED

Northern Europe



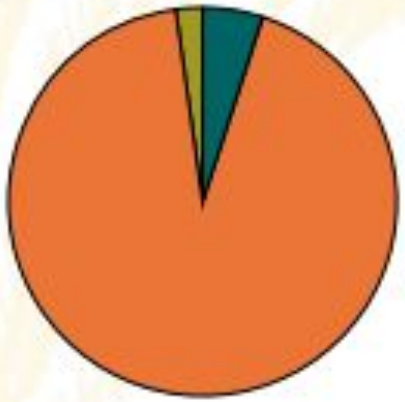
91%
0%
9%

Central Europe



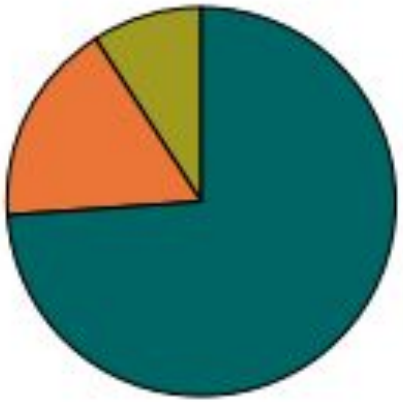
17%
9%
74%

Eastern Europe



93%
2%
5%

Southern Europe

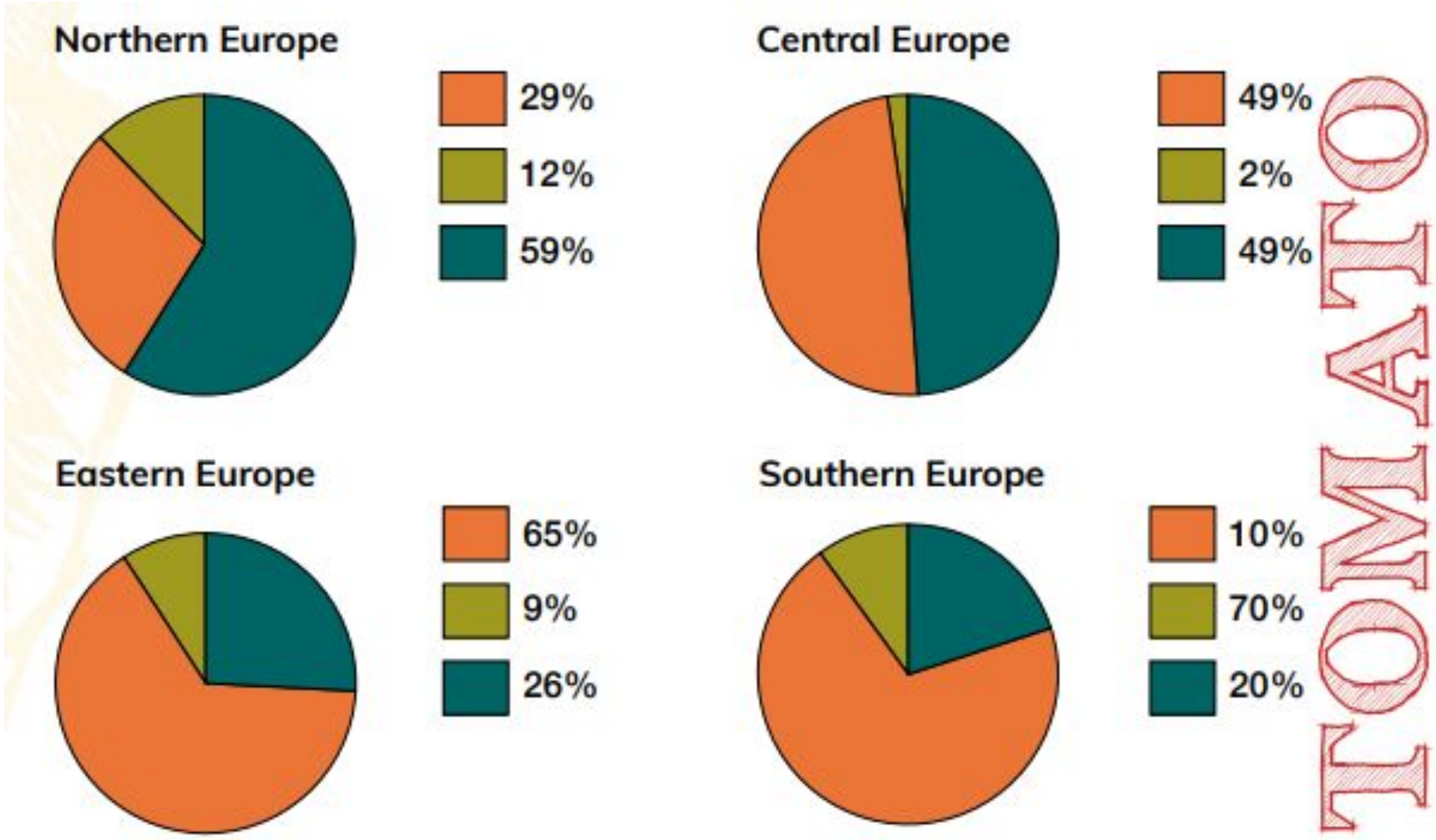


17%
9%
74%

LUCERNE

LiveSeeding

NON-ORGANIC SEED PURCHASED | ORGANIC FARM SAVED SEED | ORGANIC SEED PURCHASED



LiveSeeding

Needs in organic seed production

Small companies/initiatives: high demand for training, market transparency, seed cleaning, storage and financial support, entrepreneurship

Larger companies who are “new” to organic: difficulties in upscaling and organizational issues

- finding farmers willing and skilled to multiply under organic conditions
- organic certification, seed treatments, pest and disease management

It is important to supply the “right” varieties/cultivars that farmers request

- For example, in central EU Countries: open-pollinated vegetable varieties have just a 1-3 % market share. This can be a good entry point but may remain to be a niche market

LiveSeeding

Incentives for farmers to use organic seed

Economic

Organic seed is pre-financed

Collective purchasing

Discount on the price of organic seed

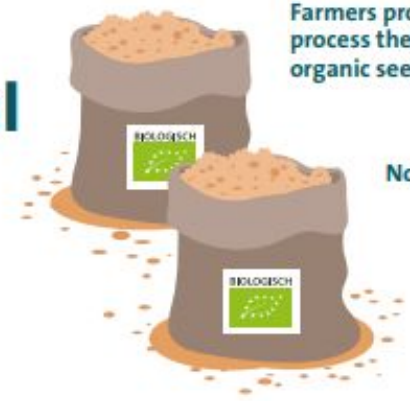
Level the price difference between organic and conventional seed

Premium price for product made with organic seed

Technical

Farmers produce and process their own organic seed

No residues



Ecological

Organic breeding

The variety is adapted to local growing conditions

The variety is suitable for organic farming

Social

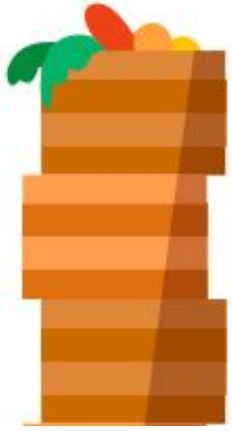
Communicate to consumers

Food chain partners demand organic seed

Level playing field for farmers

Variety has added value for consumers

Integrity of the organic product



Developing varieties for the organic sector

- Companies/initiatives that perform organic breeding, breeding for diversity, and participatory breeding under organic conditions: high need for sustainable funding schemes

- Small initiatives that do not breed under organic conditions: better understanding of the concept of organic breeding, the principles, funding opportunities, and market entry potential (OHM notification, OV registration)

- Large companies that breed for organic: strong market orientation. Less process but more product orientation.

- Large “conventional” companies: may not identify a need to breed/test under organic conditions.

LiveSeeding

Insights of the organic seed and breeding sector in the EU

24th of February 2025,

Mariateresa Lazzaro (FiBL Switzerland)

LiveSeeding

Co-funded by the European Union

Funded by the European Union, the Swiss State Secretariat for Education, Research and Innovation (SERI) and UK Research and Innovation (UKRI). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or REA, nor SERI or UKRI.

UK Research and Innovation

Developing varieties for the organic sector

Three typologies of variety selection

I. Varieties from conventional breeding:

- Pesticides, optimal nutrient supply
- Breeding objectives and variety development for conventional cultivation
- In best case tested for suitability in organic farming

→ **status quo**

II. Breeding for organic farming (BfO):

- Partial consideration of the breeding goals of organic farming
- No GMO (no cell fusion)
- Selection partly under organic conditions
- Final propagation step under organic conditions

→ **product-oriented**

III. Organic plant breeding (OPB):

- Consideration of the breeding goals of organic farming
- All selection and propagation steps under organic conditions
- Breeding techniques in harmony with organic farming

→ **process-oriented**

LiveSeeding

Breeding for organic farming

Examples of companies that offer varieties for the organic market

Vitalis Organic Seeds

bejo

KWS ORGANIC

....other

Resistances found in breeding for organic cultivation contribute to the sustainability of all agriculture and horticulture. Conversely, breeding for organic cultivation can benefit from the (much larger) number of new varieties that are available in breeding for conventional cultivation (*this might change if NGTs will be authorized for conventional*).

Organic plant breeding (OPB)

- Position paper on Organic Plant Breeding (European Consortium for Organic Plant Breeding ECO-PB): link
- IFOAM Position Paper : Compatibility of Breeding Techniques in Organic Systems : link
- Legal definitions (OPB and OV) in the Organic Regulation need still to be deatiled for full implementation >>
  ECO –PB prepared a suggestion for this

https://www.biobreeding.org/breeding.html

Some are included in the next sessions of this webinar

LiveSeeding

OPB – types of initiatives

- Non-profit organisations (of different type)
- Co-operatives
- Private for-profit with non-profit
- SMEs
- Public breeding/research centres
- ….

LiveSeeding

OPB – types of cultivars

(New) typologies as of EU Organic Regulation (2018/848)

- Organic Varieties
- Organic Heterogenous Material

In general main focus on:

- Robust varieties developed fully in organic conditions
- Genetically heterogenous cultivars (adapted landraces, open pollinated varieties, populations, …)

“Variety” = defined term for officially registered materials according to the international UPOV definition for the protection of new varieties which meet the DUS criteria.
The term “cultivar” is used in a much broader sense than the UPOV definition of “variety” and it includes DUS varieties, landraces, CCP, populations, farmers selections.
“Cultivar” = general term for officially released varieties, landraces, less homogeneous populations, niche varieties, etc.

LiveSeeding

Organic Plant Breeding sector – financing sources

Public financing

general operating grants, tenders for specific crops and breeding goals

Research / project-based funds

Limitations

- Mostly for research not for practical breeding work
- Long-term breeding activities difficult to finance
- High administrative effort for applications and reporting
- Often tied to a high proportion of own funds that are not available

Public financing is fundamental for pre-breeding, genetic resources conservation
It can be an asset for **public-private co-funding schemes**… private sector investment to leverage public funding

LiveSeeding

Organic Plant Breeding sector – financing sources

Private financing

operating funds of private agricultural organizations (competitive proposal, annual funding based on goals)

funds from private donors (competitive proposal, annual funding based on goals)

funds from fondations (competitive proposal, annual funding based on goals)

green investments: banks provide credit with low interest rate

Limitations

- Donations: stay at “charity” level
- Often for start-up phase only
- How to attract private funding?

LiveSeeding

Organic Plant Breeding sector – financing sources

User financing

farmers: Seed purchase, royalties, farmers memberships, voluntary work by different actors

Limitations
- Contribution is low
- Return on investment does not cover costs of breeding

citizens: premium price at point of sale (e.h 1-cent initiative)

Limitations
- Awareness raising
- Fair but affordable pricing

LiveSeeding

Organic Plant Breeding sector – financing sources

Value-chain based financing

contributions by food manufacturers, wholesalers, retailers

cross-sector pool funding

- donors difficult to be convinced and benefits need to be communicated
- pressure to be successful in breeding - donors want to see results/outputs (varieties)

Developing varieties for the organic sector

- Companies/initiatives that perform organic breeding, breeding for diversity, and participatory breeding under organic conditions: high need for sustainable funding schemes

- Small initiatives that do not breed under organic conditions: better understanding of the concept of organic breeding, the principles, funding opportunities, and market entry potential (OHM notification, OV registration)

- Large companies that breed for organic: strong market orientation. Less process but more product orientation.

- Large “conventional” companies: may not identify a need to breed/test under organic conditions.

LiveSeeding

LiveSeeding

Sementes Vivas
Rete Semi Rurali
Arcoiris
bingenheimer saatgut
Universitat Politècnica de València
AEDIT SRL
PIN Polska Izba Nasienna
FiBL Europe
Kmetijski inštitut Slovenije
ÖMKi
INRAE la science pour la vie, l'humain, la terre
Αιγιλοπιας Aegilops
GEVES Expertise & Performance
phr
FEDERBIO
FiBL Switzerland
itab l'Institut de l'agriculture et de l'alimentation biologiques
IFOAM
KWS
Dottenfelder-hof
Fundulea
La Unió de Llauradors i Ramaders
Red de Municipios por la Agroecología
IPS Konzalting
Organic Research Centre
crea Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria
Let's Liberate Diversity!
Ramiro Arnedo semillas
organic arable
FiBL Deutschland
Wageningen University & Research
Louis Bolk Instituut
ERGA
Politécnico de Coimbra
pro specie rara

LiveSeeding

Co-funded by the European Union

Funded by the European Union, the Swiss State Secretariat for Education, Research and Innovation (SERI) and UK Research and Innovation (UKRI). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or REA, nor SERI or UKRI.

UK Research and Innovation