



# Regulation and policy on organic seed in five North-western European countries



**LIVESEED**

[www.liveseed.eu](http://www.liveseed.eu)

# Contents

Introduction	3
Organic seed in Belgium	4
Organic seed in Denmark	6
Organic seed in France	8
Organic seed in Germany	11
Organic seed in the Netherlands	14
More information	18

## Colophon

Edition of Bionext  
September 2021

Author  
Maaïke Raaijmakers

Contributors  
Niels Heining & Leonie van der Velden



This brochure was produced within the LIVESEED project, which has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 727230 and by the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 17.00090. The information provided reflects the views of the authors. The Research Executive Agency or the SERI are not responsible for any use that may be made of the information provided.

Images  
Bionext, De Bolster, Green Organics, Inagro and Vitalis

Graphic design  
STUDIO BAARD - COCREATIE.NU

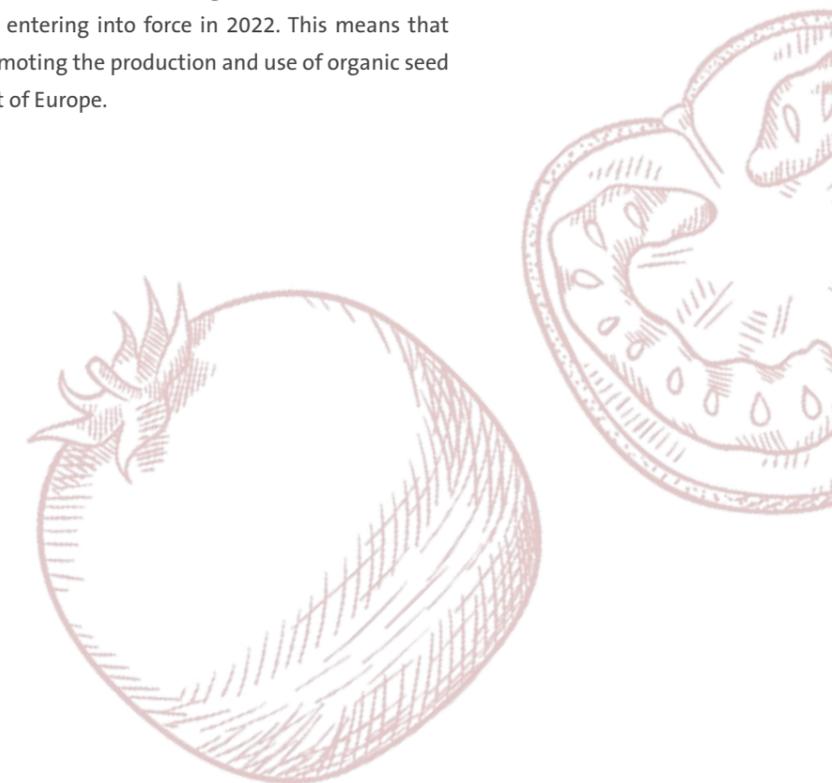


# Introduction

According to the European organic regulation, the use of organic seed in organic farming is obligatory when available. Each Member State must have a computerised database showing the availability of organic seed on its territory, and national rules and a procedure for authorisation of the use of non-organic seed should be in place. In practice, there is a huge difference in the implementation of the regulation between countries.

For the European LIVESEED project, a status quo analysis on the implementation of the regulation on organic seed was made for almost all EU countries. Ten countries were visited twice and for those countries detailed reports were made<sup>(1)</sup>. The information in this booklet was gathered through desk study, surveys among stakeholders and presentations during international workshops.

This booklet presents a global overview of the regulation and policy on organic seed in five North-western European countries. All of these countries have a well-developed seed sector and four of them have already implemented a non-derogation list, which will be obligatory in the new organic regulation entering into force in 2022. This means that these countries are at the forefront of promoting the production and use of organic seed and they are not representative of the rest of Europe.



### Sources

<sup>(1)</sup> [www.liveseed.eu/wp-content/uploads/2019/12/LIVESEED\\_D1.7-Report-on-the-National-Visits.pdf](http://www.liveseed.eu/wp-content/uploads/2019/12/LIVESEED_D1.7-Report-on-the-National-Visits.pdf)



# Organic seed in Belgium

## General information

In 2019 there were 2,394 organic farmers in Belgium, covering 6.8% (93,000 ha) of the total utilised agricultural area. Of this area, 62% was grassland, 34% was arable crops, 2% was covered with permanent crops and 2% with other crops, like vegetables.<sup>(1)</sup>

Most organic farming takes place in Wallonia. In 2020 there were 1,901 organic farms in Wallonia compared to 600 in Flanders.<sup>(2)</sup>

## Production and use of organic seed

The area of organic seed (mainly arable crops) and seedling production in Belgium was about 333 hectares in 2020 and was mostly located in Wallonia. Seed@bel is the main Belgium association of conventional seed producers, maintainers, and traders ([www.seedabel.be](http://www.seedabel.be)). They have 28 members, several of which also sell organic seeds.



Most companies active in organic seeds trade organic seeds or seed potatoes from neighbouring countries. There are three Walloon companies that produce organic vegetable seeds. In Flanders there is a vegetable seed company that also has an organic breeding programme ([www.maesseeds.com](http://www.maesseeds.com)).

In the Flemish part of Belgium, there is a network of organic farmers that grow their own seeds and select new (locally adapted) open-pollinated cultivars ([www.zelfzadentelen.be](http://www.zelfzadentelen.be)).

## Database and derogation policy

Belgium is a federal state with three regions (the Flemish Region, the Brussels-Capital Region, and the Walloon Region) that are autonomous in the field of agricultural policy. Concerning organic legislation, they tend to work together. This is especially the case for the rules on organic seed use.

Belgium uses the OrganicXseeds **database**. In 2021 there were 52 companies listed on the Belgium page of this website ([www.organicxseeds.be](http://www.organicxseeds.be)), which is available in three languages: Dutch, French, and German.

Belgium has a **National Annex** (category 1) for crops and sub-crops for which no derogation is possible. For crops for which the availability of organic seeds is insufficient, derogation is possible (category 2). For crops for which no organic seed is available, a seed a notification procedure applies (category 3). The rules for the different categories are implemented in the (regional) organic legislations.<sup>(3) (4)</sup>

In 2021, the following crops and sub-crops were listed as category 1:

Arable crops	Horticultural crops
Spelt, triticale, maize	Beetroot, sowing onion, celery, kohlrabi, cress, cucumber, endive, butternut squash and orange pumpkin, purslane, rutabaga, yellow rocket, turnip greens, French bean, black radish, Swiss chard

There are two **expert groups**: one for vegetables and one for arable and fodder crops. The expert group meetings are commonly organised and chaired by the Flemish and Walloon authorities. The expert groups meet annually to evaluate the offer and decide which crops can be listed under the different categories. The experts can also be consulted (by email) during the year if crops on the National Annex must be re-evaluated.

## Breeding research and variety trials

Belgium has an extensive network of practical research institutes, also for organic farming.

- Inagro is a research and consultancy institute in agriculture and horticulture and has had an organic department since 1998. They organise annual organic variety trials for cereals, potatoes, leeks, cabbage crops and other outdoor vegetables ([www.inagro.be](http://www.inagro.be)).
- Proefcentrum Pamel organises organic variety trials for strawberries and does research on the production of organic propagation and planting material for raspberries ([www.vlaamsbrabant.be/nl/economie-en-landbouw/proefcentrum-pamel](http://www.vlaamsbrabant.be/nl/economie-en-landbouw/proefcentrum-pamel)).
- The Walloon agricultural research centre (CRA-W) organises demonstration fields for potatoes and cereals. There is also some organic breeding research for potatoes in CRA-W Libramont and for spelt and wheat at CRA-W Gembloux ([www.cra.wallonie.be/en](http://www.cra.wallonie.be/en)).
- Novafruits, an organic growers association in Northern France and Belgium, works on participative apple breeding ([www.cra.wallonie.be/fr/novafruits-en-pommes-et-poires-des-varietes-creees-en-bio-et-bas-intrants](http://www.cra.wallonie.be/fr/novafruits-en-pommes-et-poires-des-varietes-creees-en-bio-et-bas-intrants)).

## Sources

<sup>(1)</sup> [www.organicseurope.bio/about-us/organic-in-europe](http://www.organicseurope.bio/about-us/organic-in-europe)

<sup>(2)</sup> [www.biowallonie.com/chiffres-du-bio](http://www.biowallonie.com/chiffres-du-bio)

<sup>(3)</sup> [www.lv.vlaanderen.be/nl/bio/wetgeving/vergunningen/vergunning-gebruik-niet-biologisch-zaaizaad-en-pootgoed](http://www.lv.vlaanderen.be/nl/bio/wetgeving/vergunningen/vergunning-gebruik-niet-biologisch-zaaizaad-en-pootgoed)

<sup>(4)</sup> [www.agriculture.wallonie.be/semences-et-plants](http://www.agriculture.wallonie.be/semences-et-plants)



# Organic seed in Denmark

## General information

In 2019 there were 4,109 organic farmers in Denmark covering 10.9% (286,000 ha) of the total utilised agricultural area. Of this area, 16% was grassland, 82% was arable crops and 1% was covered with permanent crops. <sup>(1)</sup>

## Production and use of organic seed

Denmark has a good climate for (organic) seed production, especially for grass, clover, and spinach seed. In 2020, the land area used for the organic production of seeds for sowing was estimated to be 8.6 thousand hectares. <sup>(2)</sup>

The Danish Seed Association has several members that produce both conventional and organic seeds. <sup>(3)</sup>

Agrologica is a Danish company that started as a farm in 1984 and gradually specialised in organic seed production of old cereal varieties and in the development of new organic cereal varieties. They also participate in various research and development projects ([www.agrologica.dk](http://www.agrologica.dk)).

## Database and derogation policy

Since 2020, Denmark has used the OrganicXseeds **database**, managed by FIBL Germany. In 2021, there were 51 suppliers, mainly Danish and German seed companies, offering organic seed on the Danish database ([www.organicxseeds.dk](http://www.organicxseeds.dk)).

## Sources

- <sup>(1)</sup> [www.organicseurope.bio/about-us/organic-in-europe](http://www.organicseurope.bio/about-us/organic-in-europe)
- <sup>(2)</sup> [www.statista.com/statistics/918003/agricultural-area-used-by-organic-farms-for-seeds-production-in-denmark](http://www.statista.com/statistics/918003/agricultural-area-used-by-organic-farms-for-seeds-production-in-denmark)
- <sup>(3)</sup> [www.lf.dk/om-os/om-landbrug-og-foedevarer/vores-medlemmer/brancher/brancheudvalget-for-froe/the-danish-seed-council](http://www.lf.dk/om-os/om-landbrug-og-foedevarer/vores-medlemmer/brancher/brancheudvalget-for-froe/the-danish-seed-council)

When Danish farmers can ask for a **derogation** for the use of non-organic seed depends on the sowing period of the crop. Whether the derogation is granted depends on the number of varieties from which organic seed is available and on expert evaluation of the available varieties. If a derogation is applied for, and equivalent and suitable varieties are available, no derogation is granted unless the farmer can prove he has specific needs at his farm. This practice reduces the amount of derogations in crops for which there is enough organic supply, like cereals, legumes, grass, and clover.

Denmark has three **expert groups**: one for grass and clover, one for other agricultural crops and one for vegetables. The main role of the expert groups is to evaluate which varieties are suitable for organic farmers in Denmark. Therefore, the members of the expert group are crop experts and for agricultural crops the head of the official variety registration office also takes part. The experts use different criteria to determine the suitability of varieties. They check if the variety is on the national variety list and look at results of (national) variety trials.

## Crop-specific rules

Crops that are not harvested (e.g. **catch crops**) must always be produced from organic seed, regardless of the expert evaluation of the variety. A special committee makes recommendations for the composition of **grass seed mixtures** every year.



The amount of organic seed in the mixtures depends on the harvest of the Danish grass and clover seed production. Some mixtures contain 100% organic seed, some 95%, some less. For **potatoes** the deadline for derogations is 1 March and a farmer can only apply twice for a derogation for the same variety. <sup>(4)</sup>

## Breeding research and field trials

There is a long tradition of organic cultivar trials in Denmark. Breeders pay any expense to have their cultivars tested in these trials. The Danish breeding companies have breeding activities for organic farming in a few species as part of or in parallel with their conventional breeding programme. But organic cultivar trials are mainly used for testing the performance of conventional cultivars under organic conditions. Organic cultivar trials are mainly used for spring barley, which is one of the most significant organic cereal crops, and occasionally for spring and winter wheat and oat. There are four locations for organic cereal trials in different parts of Denmark.

New varieties of agricultural crops always need to be tested for their added value for farmers (the so-called VCU test). As of recently, it is possible in Denmark to have new varieties tested under organic conditions. The first organic VCU trials in organic winter wheat started in autumn 2017. <sup>(5)</sup>

SEGES is the leading agricultural knowledge and innovation centre in Denmark. They are part of the Danish Agriculture & Food Council, which represents the farming and food industry of Denmark. SEGES covers all aspects of farming and farm management, including organic production. The organic department conducts field trials and tests and collaborates with farmers in on-farm development projects ([www.en.seges.dk](http://www.en.seges.dk)).

## Sources

- <sup>(4)</sup> [www.liveseed.eu/wp-content/uploads/2020/07/Session\\_2\\_Smart-Practices-expert-evaluation-in-seed-database-SEGES.pdf](http://www.liveseed.eu/wp-content/uploads/2020/07/Session_2_Smart-Practices-expert-evaluation-in-seed-database-SEGES.pdf)
- <sup>(5)</sup> [www.liveseed.eu/wp-content/uploads/2020/11/LIVESEED-D2.1\\_Overview-of-the-organisational-models-of-cultivar-trials-for-organic-agriculture\\_corrected-version\\_TMP.pdf](http://www.liveseed.eu/wp-content/uploads/2020/11/LIVESEED-D2.1_Overview-of-the-organisational-models-of-cultivar-trials-for-organic-agriculture_corrected-version_TMP.pdf)



# Organic seed in France

## General information

In 2019 there were 47,196 organic farmers in France covering 7,7% (2,241,000 ha) of the total utilised agricultural area. Of this area, 37% was grassland, 56% was arable crops and 7% was covered with permanent crops. <sup>(1)</sup>

## Production and use of organic seed

France has a strong seed sector and a good climate for seed production, especially for cereals. Ubios is a cooperative specialising in large-scale organic seed production for cereals and grain legumes. They multiply varieties from different breeders and also produce seeds of organic heterogeneous material. ([www.unionbiosemences.fr](http://www.unionbiosemences.fr))

In 2019 there were 108 seed companies in France involved in the production and trade of organic seed and 900 multipliers (usually farmers) produced organic seed in France on 14,000 ha. <sup>(2)</sup>

The conventional seed association UFS (Union Française des Semenciers) also has several members that produce and/or trade organic seeds ([www.ufs-semenciers.org](http://www.ufs-semenciers.org)).

Additionally, there are several farmer networks involved in the production and maintenance of seeds. Réseau Semences Paysannes is a grassroots network of farmers (organisations) that produces seeds from open-pollinated varieties and are active in seed policy. Many of their members are organic ([www.semencespaysannes.org](http://www.semencespaysannes.org)).

Research from ITAB has shown that the amount of organic seed used by French organic farmers depends on the size of the farm and the distribution channel for their products. Small farms (< 2 ha) that sell their products through short supply chains (e.g. farmers markets) use more organic seeds than larger farms that produce for long distribution chains (e.g. export and supermarkets). Additionally, it was found that for wheat, triticale and fava beans, a majority of the farmers uses farm-saved seeds. <sup>(3)</sup>

## Database and derogation policy

France has a well-functioning organic seed database ([www.semences-biologiques.org](http://www.semences-biologiques.org)) managed by the seed authority (SEMAE, formerly GNIS) in cooperation with the French National Institute of Origin and Quality (INAO) and its National Committee on Organic Plant Reproductive Material (PRM). One of the roles of the committee on organic PRM is to supervise the work of the organic seed expert groups.

There are five **expert groups**: field crops & potatoes; forage crops; vegetables; arboriculture & small fruits; and viticulture. The expert groups use the derogation reports to determine whether a crop is a 'candidate' for the **National Annex**. If so, they can propose this to the National Committee on Organic PRM. If the committee agrees, they will make a proposal to the National Committee for Organic Farming (CNAB). CNAB ultimately decides whether a particular (sub)crop is placed on the French National Annex.

## Alert screen

France is the only EU country that has four categories for **derogations**. The general derogation applies to crops and sub-crops for which no organic seeds are available within the national territory. A standard derogation applies if the availability of organic seed is insufficient in the amount of varieties and not covering the whole territory. The alert screen is for crops that are candidates for the fourth category: the non-derogation list (National Annex). Crops stay on the alert screen until both the quantity of organic seeds and the number of varieties are sufficient for the whole of France.

In September 2021, the following crops were on the non-derogation list in France:

Arable crops	Horticultural crops
- Oats	- Half-long black or purple eggplants
- Soft wheat	- Nantes orange carrot
- Corn grain and fodder (except very late varieties)	- Celeriac (except coated or pre-germinated seeds)
- Long-day hybrid yellow onions (except mildew resistance)	- Milanese cabbage
- Spring and winter barley	- Chicory except curly yellow heart and Walloon
- Alfalfa	- Dutch type cucumber
- Forage peas	- Short smooth cucumber, prickly courses, and others
- Potato	- smooth or prickly pickle
- Spelled	- Butternut squash, Provence musk, giraumon, and pumpkin
- Rye (grain)	- Green cylindrical courgette F1 -open field
- Soybeans - other groups than I and II	- Fennel
- Triticale	- Bean
	- Field and shelter green Batavia lettuce
	- Field and cover butter lettuce
	- Red and green shelter oak leaf lettuce
	- Open field green oak leaf lettuce
	- Open field red oak leaf lettuce (except pointed leaves)
	- Field romaine lettuce
	- Common and curly parsley (except pre-germinated seeds)
	- Leek (open-pollinated varieties)
	- Red round radish



## Sources

<sup>(1)</sup> [www.organicseurope.bio/about-us/organic-in-europe](http://www.organicseurope.bio/about-us/organic-in-europe)

<sup>(2)</sup> [www.liveseed.eu/wp-content/uploads/2020/07/Session\\_2\\_Smart\\_Practices\\_Frenchsystem\\_INAO.pdf](http://www.liveseed.eu/wp-content/uploads/2020/07/Session_2_Smart_Practices_Frenchsystem_INAO.pdf)

<sup>(3)</sup> [www.eco-pb.org/fileadmin/eco-pb/documents/Rey\\_France\\_country\\_update.pdf](http://www.eco-pb.org/fileadmin/eco-pb/documents/Rey_France_country_update.pdf)



### Progressive timetable

For some crops (in particular carrots and radish) it turns out to be very difficult to reach the goal of 100% organic seed. Therefore, a progressive timetable has been developed (see figure) in which the percentage of organic seed that must be used is raised each year. The aim is to give farmers the opportunity to try out new varieties (for which organic seed is available) and at the same time give seed suppliers time to scale up their seed production.

### Crop-specific rules

There are specific rules for vegetative material from berries and aromatic plants. For these crops, derogation is only possible if farmers have ordered their planting material at least 18 months in advance.

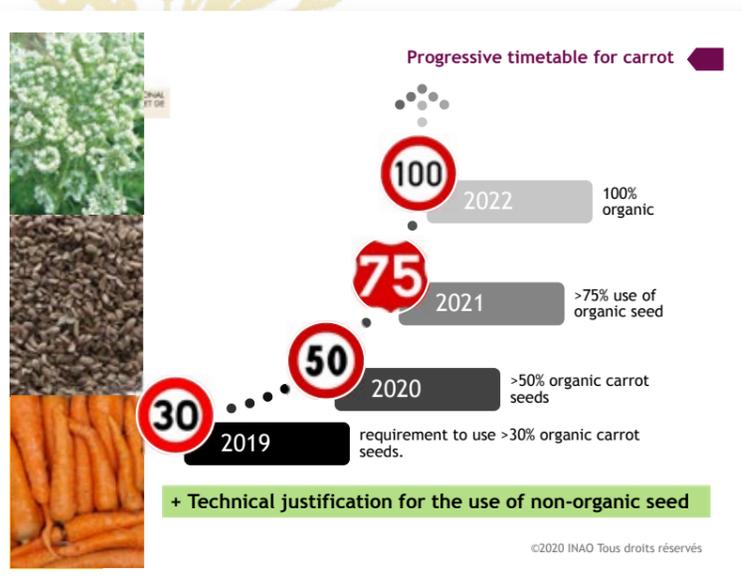
For organic forage seed mixtures the rule is that each mixture must contain at least

70% organic seed. The other 30% can be conventional seed, but only from varieties that are listed on the general derogation list. <sup>(3)</sup>

### Breeding research and field trials

The organic food and farming institute for practical research ITAB ([www.itab.asso.fr](http://www.itab.asso.fr)) coordinates the organic network of cultivar trials. Winter wheat is the main crop in organic trials but there are also trials for spring wheat, triticale, and a few spelt cultivars. Funding for the trials is dependent on support from public authorities. <sup>(4)</sup>

The National Institute of Agronomic and Environmental Research (INRAE) has an organic department in three areas and is involved in organic breeding research and participatory breeding projects for cereals and vegetable crops ([www.inrae.fr](http://www.inrae.fr)).



### Sources

- <sup>(3)</sup> [www.liveseed.eu/wp-content/uploads/2020/07/Session\\_2\\_Smart\\_Practices\\_Frenchsystem\\_INAO.pdf](http://www.liveseed.eu/wp-content/uploads/2020/07/Session_2_Smart_Practices_Frenchsystem_INAO.pdf)
- <sup>(4)</sup> [www.liveseed.eu/wp-content/uploads/2020/11/LIVESEED-D2.1\\_Overview-of-the-organisational-models-of-cultivar-trials-for-organic-agriculture\\_corrected-version\\_TMP.pdf](http://www.liveseed.eu/wp-content/uploads/2020/11/LIVESEED-D2.1_Overview-of-the-organisational-models-of-cultivar-trials-for-organic-agriculture_corrected-version_TMP.pdf)

# Organic seed in Germany

### General information

At the end of 2019, there were 34,110 organic farmers in Germany covering around 9.7% (1,614,000 ha) of the total utilised agricultural area. Of this area, 51% was grassland, 43% was arable crops, 1% was covered with permanent crops and 4% with other crops. <sup>1)</sup>

### Production and use of organic seed

The seed and breeding sector in Germany is well-organised. There are about 100 mostly medium-sized private companies active in breeding. The Federal Association of German Plant Breeders e. v. (BDP) has 130 members which are agricultural and horticultural breeding and trading companies. Several members produce both organic and conventional seeds.

There is a separate association for biodynamic cereal breeders ([www.biosaat.org](http://www.biosaat.org)). Bingenheimer Saatgut is a 100% organic seed and breeding company in Germany that produces only open-pollinated vegetable varieties. The seeds are propagated on around 80 farms in Germany and surrounding countries ([www.bingenheimersaatgut.de](http://www.bingenheimersaatgut.de)).

### Database and derogation policy

Germany uses the organicXseeds database, which is currently used in ten European countries and managed by the research organisation for organic farming FIBL ([www.fibl.org](http://www.fibl.org)). In 2021, there were 140 suppliers listed on the German page of

the database ([www.organicxseeds.de](http://www.organicxseeds.de)), mainly German seed and trading companies.

Since 2009, Germany has had a **National Annex** (category 1) for crops and sub-crops for which no derogation for the use of non-organic seed is possible. For crops that are not in category 1, farmers can ask for a derogation if the variety they want to grow is not available in the database. For crops with little or no availability or organic seed, a general derogation applies.

Germany has sixteen regions (Bundesländer) that are autonomous in the field of their agricultural policy. North Rhine-Westphalia and Lower Saxony have received a mandate from the other federal states to organise seed expert group meetings.

There are two **expert groups**: one for vegetable crops and herbs and one for agricultural crops. The expert groups are chaired by the competent authority of Lower Saxony. They meet annually and give advice on which crops should be placed on the national Annex. To place a crop on the National Annex, the consent of all states is necessary. The decision to place a (sub) crop on the Annex is usually made several years in advance so seed companies and farmers have time to prepare for this.

### Sources

- <sup>(1)</sup> [www.organicseurope.bio/about-us/organic-in-europe](http://www.organicseurope.bio/about-us/organic-in-europe)



### Rules on seed potatoes

Organic farmers in Germany must order their seed potatoes before 1 February. Until this date, they can get a derogation for the use of conventional seed potatoes if they ask for a variety from which no organic seed potatoes are available. After this date, no derogation is possible. With this rule, the government wants to prevent farmers from delaying their order until the organic seed potatoes are sold out. The main reason to allow derogations until 1 February is to maintain biodiversity. Some farmers use more than ten different varieties.

Crops in category 1 in Germany (June 2021)

Arable crops	Horticultural crops	New
- Alexandrine clover	- Endive (variety group, smooth/ autumn)	- from 15 November 2020: German ryegrass
- Blue lupine	- Garden cress	- from 01-04-2021: winter wheat
- Buckwheat (esculentum)	- Cucumber (variety group, glass/ foil snake cucumber)	- from 01-04-2022: winter triticale
- German ryegrass	- Pumpkin (variety group 'Hokkaido')	
- Annual ryegrass	- Paprika (group of varieties 'green-red blocky')	
- Esparsette	- Beetroot	
- Yellow mustard	- Black radish, round	
- Crimson clover	- Runner bean, green	
- Corn	- Summer onion (yellow, Rijnsburger type)	
- Pannonian vetch		
- Persian clover		
- Summer oats (except dwarf type)		
- Summer vetch		
- Italian ryegrass		
- Winter rye		
- Winter wheat		
- Winter vetch / shaggy vetch		
- Sugar beet		



Lettuce seed production

### Variety trials and breeding research

Organic cultivar trials (post-registration) are performed by the Federal States with transregional cooperation between neighbouring Federal States. There are organic trials for different types of cereals and beans, for potatoes and for sunflower. Until now, only cereal varieties have been applied for registration under organic conditions. <sup>(2)</sup>

At the university of Kassel-Witzenhausen, there is a chair for organic plant breeding and a chair for organic plant protection. Here, approaches to diversify crops are being studied (e.g. by using wheat populations). Students can graduate in organic plant breeding and agrobiodiversity.

The first German state-funded organic breeding platform is located in Ruhstorf, Bavaria. The focus in this project is on corn, malting barley, and winter rye, which serve as models for other crops. <sup>(3)</sup>

There are also EU-funded projects, co-financed by states, focussing on organic seed propagation. <sup>(4)</sup>

Additionally, there are several private initiatives in Germany to stimulate organic breeding: Kultursaat is a charitable association established in 1994. Currently, breeding practice is done on thirty biodynamically managed sites, embedded in organic cropping. The breeders explore breeding methods and develop new open-pollinating (op) varieties of vegetables, herbs, and flowers. Until now, more than eighty new op varieties have been developed and listed in the EU Common Catalogue ([www.kultursaat.org/en](http://www.kultursaat.org/en)).

Saat:Gut represents a group of organic farmers, seed growers and fruit growers that breed new, well-adapted, healthy, nutritious, tasty, and high-yielding plant varieties grown from open-pollinated seeds. They are supported by Bioland, organic wholesalers, retailers, seed merchants and private individuals ([www.saat-gut.org/index\\_en.cfm](http://www.saat-gut.org/index_en.cfm)).

Zukunftsstiftung-Landwirtschaft is a foundation that supports several initiatives in the field of organic plant and animal breeding ([www.zukunftsstiftung-landwirtschaft.de](http://www.zukunftsstiftung-landwirtschaft.de)). <sup>(5)</sup>

#### Sources

- <sup>(2)</sup> [www.liveseed.eu/wp-content/uploads/2020/11/LIVESEED-D2.1\\_Overview-of-the-organisational-models-of-cultivar-trials-for-organic-agriculture\\_corrected-version\\_TMP.pdf](http://www.liveseed.eu/wp-content/uploads/2020/11/LIVESEED-D2.1_Overview-of-the-organisational-models-of-cultivar-trials-for-organic-agriculture_corrected-version_TMP.pdf)
- <sup>(3)</sup> [www.lfl.bayern.de/ipz/forschung/243982/index.php](http://www.lfl.bayern.de/ipz/forschung/243982/index.php)
- <sup>(4)</sup> [www.dottenfelderhof.de/forschungzuechtung/ueber-uns/aktuelle-projekte/eip-projekt-oekosaat](http://www.dottenfelderhof.de/forschungzuechtung/ueber-uns/aktuelle-projekte/eip-projekt-oekosaat)
- <sup>(5)</sup> [www.liveseed.eu/wp-content/uploads/2020/10/LIVESEED\\_D3.9\\_List-of-existing-organic-breeding-initiatives-v3-FIN-003.pdf](http://www.liveseed.eu/wp-content/uploads/2020/10/LIVESEED_D3.9_List-of-existing-organic-breeding-initiatives-v3-FIN-003.pdf)

# Organic seed in the Netherlands

## General information

In 2019 there were 1,867 organic farmers in the Netherlands covering 3.8% (68,000 ha) of the total utilised agricultural area. Of this area, 59% was grassland, 40% was arable crops (including 13% of vegetable production) and 1% was covered with permanent crops. <sup>(1)</sup>

## Production and use of organic seed

The Netherlands has a very strong seed sector. Dutch breeding companies are global market leaders in vegetable seeds, seed potatoes and ornamentals. This is also apparent from the number of applications for plant breeders' rights in Europe: more than 30% of these come from Dutch breeders.

The Netherlands has a good climate for the production of (organic) seed potatoes, fruit trees and seed production for some vegetables like pumpkin.

Plantum is the branch organisation for the Dutch seed sector. They have around 350 members, including several companies that produce both conventional and organic seed. Some companies have a separate organic breeding programme while others pick, at the earliest possible stage, suitable selections from the conventional breeding programme that fit into the organic seed programme ([www.plantum.nl](http://www.plantum.nl)).

De Zaderij is a cooperative of farmers and gardeners that select, propagate, and sell organic (biodynamic) seeds of open-pollinated varieties ([www.zaderij.nl](http://www.zaderij.nl)).

De Beersche Hoeve is a biodynamic farm specialised in organic seed production and the breeding of open-pollinated varieties. For this they work together with Kultursaad e.v. (an association for the breeding of vegetable crops) and the German seed company Bingenheimer Saatgut AG. ([www.debeerschehoeve.nl](http://www.debeerschehoeve.nl)).

## Database and derogation policy

The Dutch organic seed **database** ([www.biodatabase.nl](http://www.biodatabase.nl)) is managed by the seed authority for the horticulture sector Naktuinbouw.

In 2004, the Netherlands was the first country to start with a **National Annex** (category 1). This is a list of species and sub-species for which sufficient organic propagated seed or vegetative propagating material is available and organic farmers are unable to receive derogations to use non-organic seed. This means they are required to choose from the varieties offered on the organic seed database. Exemptions are only made for the use of non-organic seed from specific varieties for research, field trials, or conservation purposes. For crops for which the availability of organic seeds is insufficient, derogation is possible (category 2). For crops for which no organic seed is available, a general derogation applies (category 3).

To define which (sub)species can be placed on the National Annex, expert groups have been created. The role of the expert groups is to advise the Ministry of Agriculture (competent authority) which then makes the final decision.

## Sources

<sup>(1)</sup> [www.organicseurope.bio/about-us/organic-in-europe](http://www.organicseurope.bio/about-us/organic-in-europe)

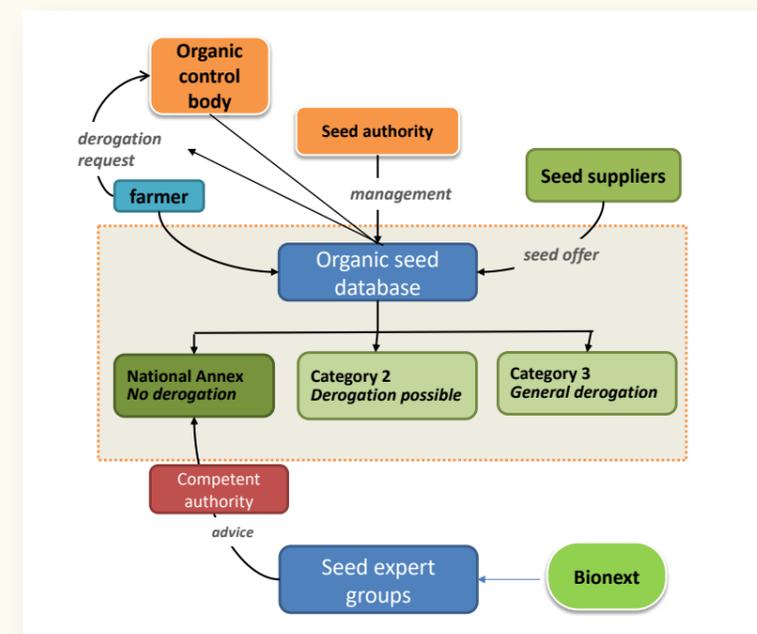


The Netherlands has **expert groups** for:

- glasshouse crops
- open field horticulture crops and potatoes
- cereals, fodder and forage crops
- vegetative propagation material (fruit and ornamentals)

The expert group meetings are organised by Bionext, the branch organisation for the Dutch organic sector, commissioned by the Dutch Ministry of Agriculture. In order to stimulate the growth of the national Annex, additional activities are organised by Bionext, such as demonstration fields of leek varieties for the organic sector in 2020 and 2021 ([www.bionext.nl/thema-s/biodiversiteit/annex](http://www.bionext.nl/thema-s/biodiversiteit/annex)).

Diagram of the Dutch rules on organic seed:



## Crop-specific rules

There are specific rules for **fruit trees** (apples, pears). For these crops, derogation is only possible if farmers have ordered their planting material at least 18 months in advance.

For organic forage **seed mixtures** the rule is that only 100% organic seed mixtures can be placed on the Dutch organic seed database. The use of (foreign) mixtures which contain conventional seed is only allowed if the conventional seed is from varieties that are listed on the general derogation list.



## Breeding research and variety trials

### Participatory potato breeding

Since 2008, there has been a long-term breeding programme for organic potato varieties (**Bio-impuls**). This project is based on a unique collaboration between the Louis Bolk Institute, Wageningen University, commercial breeding companies and organic potato growers and farmer breeders. The aim is to develop robust organic potato varieties that are resistant to the most severe disease: late blight (*Phytophthora infestans*). In addition, organic farmers require cultivars adapted to low nitrogen levels and with good quality. In 2019, a new programme was launched with a focus on the development of markers for phytophthora-resistant genes and virus resistance.

To increase the availability of resistant potato varieties in the field and on the shelves of the supermarkets, 25 partners in the organic potato production chain signed a covenant in 2017 called 'Accelerated transition to robust potato varieties' ([www.bionext.nl/thema-s/gezondheid/aardappel-convenant](http://www.bionext.nl/thema-s/gezondheid/aardappel-convenant)).

The Bio-impuls project is part of the research programme **Green Breeding**, which aims to contribute to a more sustainable agriculture. The research focuses on both organic and conventional farming ([www.groeneveredeling.nl](http://www.groeneveredeling.nl)).

Stichting Zaadgoed is a foundation focused on organic plant breeding, seed production and the conservation of agrobiodiversity. They support farmer and community based plant breeding and the conservation of traditional varieties for organic agriculture ([www.zaadgoed.nl](http://www.zaadgoed.nl)).

## Crops and sub crops on the National Annex in the Netherlands in 2021

Glasshouse production	Vegetable production	Arable crops
Fennel	Endive, smooth, curl, ordinary	<b>Potato</b>
Cucumber green/long	Asparagus crowns	<b>Cereals</b>
Kohlrabi/white	Pickle	Buckwheat
Beetroot	Celery	Oats
Herbs (except parsley)	Zucchini, Green cylindrical	Spells
Bell pepper /green/red/blocked	Peas, fresh	Winter barley <sup>1</sup>
Planting onion	Green chicory	Winter rye
Turnip greens	Capuchins, fresh market	Winter wheat
Arugula	Garlic	Winter triticale
	Kohlrabi, white, blue, fresh market	Summer wheat
	Herbs, fresh market (except Parsley, Maggi and Basil)	Summer barley
	Turnip	<b>Green manures</b>
	Snow peas	Alexandrian clover
	Planting onion	Fodder radish
	Pumpkin, orange/ fall/ storage/ industry	Yellow mustard
	Runner bean	Clover incarnate
	Turnip greens	Japanese oats
	Rhubarb	Persian clover
	Radish, round and elongated	Phacelia
	Rettich	Summer vetch
	Arugula	<b>Grasses</b>
	Shallot (planting material)	Perennial ryegrass
	Lettuce: Batavia, cos lettuce, oak leaf lettuce, head lettuce, lollo rossa and bionda, ice lettuce	Italian ryegrass
	Swiss chard, all types	Reed fescue
	Brussels sprouts early cultivation (harvest until mid-November)	Timothy grass
	Bunching onion	<b>Forage crops</b>
	French green beans	Lucerne
	String bean	Corn (cut and grain)
	broad bean, fresh market	Red clover
	Cress	Sugar beet
	Field cucumber	White clover
	Winter and summer purslane	Winter peas
	sowing onion yellow and red	Sunflower

# More information

## Report

Report on the national Visits

[www.liveseed.eu/wp-content/uploads/2019/12/LIVESEED\\_D1.7-Report-on-the-National-Visits.pdf](http://www.liveseed.eu/wp-content/uploads/2019/12/LIVESEED_D1.7-Report-on-the-National-Visits.pdf)

## Booklets

How to implement the organic regulation to increase production & use of organic seed

[www.liveseed.eu/wp-content/uploads/2020/05/FNL-WEB-LIVESEED-All-Pages-Booklet1Changes\\_compressed.pdf](http://www.liveseed.eu/wp-content/uploads/2020/05/FNL-WEB-LIVESEED-All-Pages-Booklet1Changes_compressed.pdf)

The state of organic seed in Europe:

[www.liveseed.eu/wp-content/uploads/2021/03/Booklet2-LIVESEED\\_2021\\_web.pdf](http://www.liveseed.eu/wp-content/uploads/2021/03/Booklet2-LIVESEED_2021_web.pdf)

Creating incentives for farmers to use organic seed:

[www.liveseed.eu/wp-content/uploads/2020/11/FNL-BOOKLET-6-WEB-.pdf](http://www.liveseed.eu/wp-content/uploads/2020/11/FNL-BOOKLET-6-WEB-.pdf)

## Practical abstracts

[www.liveseed.eu/wp-content/uploads/2020/11/PA21\\_The-difference-between-certified-organic-seed-and-untreated-conventional-seed.pdf](http://www.liveseed.eu/wp-content/uploads/2020/11/PA21_The-difference-between-certified-organic-seed-and-untreated-conventional-seed.pdf)

[www.liveseed.eu/wp-content/uploads/2020/11/PA22\\_Values-and-benefits-of-organic-seeds-and-vegetative-propagating-material.pdf](http://www.liveseed.eu/wp-content/uploads/2020/11/PA22_Values-and-benefits-of-organic-seeds-and-vegetative-propagating-material.pdf)

[www.liveseed.eu/wp-content/uploads/2020/11/PA49\\_Introduction-of-new-varieties-in-the-market.pdf](http://www.liveseed.eu/wp-content/uploads/2020/11/PA49_Introduction-of-new-varieties-in-the-market.pdf)

## Website

The European router database: [www.seeds4organic.eu](http://www.seeds4organic.eu)

## Movie

Strategies for the production of organic vegetable seed





LIVESEED

