



Updated and improved roadmap/decision tree to reach 100% organic seed

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LiveSeeding - Organic seed and plant breeding to accelerate sustainable and diverse food systems in Europe is a 4-year Innovation Action funded by the European Union, the Swiss State Secretariat for Education, Research and Innovation (SERI) and UK Research and Innovation (UKRI). The project started in October 2022 and brings together 37 organisations operating in 16 European countries. LiveSeeding provides science-based evidence and best practice solutions to help achieve 100 % organic seed.

LiveSeeding contributes to the transition towards environmentally friendly, climate-neutral, healthy and fair food systems through a **PUSH-PULL-ENABLE strategy** to:

Enhance the availability and adequacy of organic seeds of cultivars appropriate to organic farming (PUSH),

Increase and stabilise the market demand for organic seeds of cultivars appropriate to organic farming (PULL),

Foster an enabling policy and regulatory environment where both demand and supply can harmoniously and productively negotiate without irrelevant constraints due to legal restrictions and/or regulatory fragmentation (ENABLE).



LiveSeeding addresses the topics in a **holistic multi-actor, multi-stakeholder, participatory approach** involving stakeholders along the value chain in 17 local **Living Labs** (LLs) and 3 established networks of organic breeders (**ECO-PB**), seed savers (**ECLLD**) and Milan Urban Food Policy Pact (**MUFPP**). 16 European countries cover the different pedoclimatic zones and socio-economic contexts, including countries with a low level of development in organic seed and breeding in East and South Europe.

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List of abbreviations

AMK	German Conference of Agriculture Ministers (Agrarministerkonferenz)
AREI	Latvian Institute of Agricultural Resources and Economics (Agroresursu un Ekonomikas Institūts)
E.C.	European Commission
CMS	Cytoplasmic Male Sterility
CNAB	French National Committee on Organic Agriculture (Comité national de l'agriculture biologique)
CREA	Italian Council for Agricultural Research and Economics (Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria)
EG.	Expert Group
EU	European Union
F1	Filial 1 hybrid
FiBL	Research Institute for Organic Agriculture
ICOEL	Danish Innovation Centre for Organic Farming (Innovationscenter for Økologisk Landbrug)
IFOAM Organics Europe	International Federation of Organic Agriculture Movements - Europe
INAO	French National Institute of Origin and Quality (Institut national de l'origine et de la qualité)
LÖK	German State Working Group on Organic Farming (Landwirtschaftliche Ökologische Kooperation)
OP	Open Pollination
OHM	Organic Heterogeneous Material
PRM	Plant Reproductive Material
RSR	Rete Semi Rurali
SEMAE	French Interprofessional Organisation for Seeds and Plants
SGAV	Danish Agency for Green Transition and Aquatic Environment (Styrelsen for Grøn Arealomlægning og Vandmiljø)
StA	Standing Committee of LÖK in Germany
V.Ö.P	Network for organic practice research

1. Summary

This deliverable is part of LiveSeeding's work aimed to enhance transparency in the European organic seed market, harmonize the implementation of European Union (EU) regulations, and support national authorities in building capacity to achieve the goal of phasing out exemptions for the use of non-organic seeds.

At the European Union level, there are **plans to eliminate all exemptions for the use of non-organic seeds in organic agriculture by the end of 2036**. It will be essential to take the necessary strategic steps at the national level to reach this goal.

This report examines six national strategies aimed at increasing the production and use of organic seeds (chapter 4). It is based on semi-structured interviews and an analysis of the success factors and challenges faced. The strategies studied are:

- *Denmark: "Future-Proof Organic Vegetable Seeds" project (2022-2026)*
- *France: "Species Categorization System"*
- *Germany: "Roadmaps to Increase Supply and Demand for Organic Plant Reproductive Material" (2023-2026)*
- *Latvia: "Developing the Necessary Measures to Boost the Use of Organic Seed" project (2023-2025)*
- *Sweden: "Increasing domestic vegetable seed production by 2036" (2022-2028)*
- *Italy: National Plan for organic seed (2025-2028)*

These initiatives can serve as inspiration and guidelines for implementing similar projects in other European countries.

Chapters 5 and 6 provide key take aways/lessons learned and key policy recommendations respectively. The main lessons learned from this report are: the importance of a **multi-actor approach and strong stakeholder collaboration**; maintaining a **comprehensive overview of the current situation** (including data on organic seed production, needs, and usage); and **ensuring institutional support** (such as integration within a National Organic Action Plan).

2. Introduction and background

The transition to 100% use of organic plant reproductive material (PRM) is a critical step toward fostering sustainable and resilient agricultural systems. Furthermore, in the EU, derogations allowing the use of non-organic PRM in organic farming will be phased out by 2036. To support a smooth transition, the LiveSeeding project aims to establish a transparent organic seed market across Europe and ensure the harmonised implementation of the regulations for granting derogations. As shown in the [LIVESEED](#) project, the organic seed supply, including organic farm-saved seed, is covering on average less than 50% of the organic farm area, with great differences between crops and countries (Solfanelli et al. 2021. 2022). Also, the perception of farmers towards organic seed use varies among countries, marketing strategy and farm size (Orsini et al. 2020). A lack of information about availability and price for organic seed is likely to act as barrier to investment (Padel et al. 2020).

With the EU Regulation 2018/848, which came into force on 1 January 2022, the term “plant reproductive material” (PRM) was introduced into legislation for the first time. The regulation defines PRM as “plants and all parts of plants, including seeds, at any stage of growth that are capable of, and intended for, producing entire plants” (EU Regulation 2018/848, Article 3 (17)). As a result, organic farms must use organic PRM or apply for a derogation for non-organic PRM - at least until 2036.

The derogation procedure, as outlined in the regulation, is implemented at the national level and is dependent on the availability of organic PRM in their territory and its classification within three derogation categories (see Table 1). National authorities are responsible for assessing the availability of organic PRM in their territories, determining the categorisation of species, subspecies, cultivar groups or cultivars¹, and then managing the entire derogation process accordingly.

¹The term “cultivar” is used throughout this report, as defined by the LIVESEED project, as a generic reference for any crop, including varieties, breeding lines, populations and organic heterogenous material. The more specific term of “variety” is primarily used when referring to official variety testing.

Derogation category	Regulatory reference (EU) 2018/848	Availability of organic PRM	Description
Category I (also called National Annex)	Annex II Part I point 1.8.5.6	High	Sufficient organic PRM is available from a sufficiently wide range of cultivars. Organic farms cannot obtain derogations for non-organic PRM, even if the preferred cultivar is unavailable - another cultivar must be used. Exceptions apply for research, field trials, cultivar preservation, or product innovation. To our knowledge, only 9 countries work with such a no-derogation list (as of July 2024). ²
Category II	Annex II Part I point 1.8.5.1	Medium	Organic PRM of a cultivar has priority, but if no organic PRM of the preferred cultivar is available, a derogation request can be submitted by selecting a reason specified in the regulation: a) No cultivar of the species is listed in the national database; b) No supplier can deliver the requested PRM on time; c) The requested cultivar is not listed in the database and no suitable alternative is available; or d) It is required for research, field trials, cultivar conservation, or product innovation.
Category III	Annex II Part I point 1.8.5.7	Low to none	Organic PRM of a cultivar has priority. If none is available, general derogations are possible, meaning only the quantity of non-organic PRM used must be documented – no further justification is required.

Table 1: Derogation categories according to EU Regulation 2018/848

The [LiveSeeding](#) project examined which countries maintain a Category I list (see example of Category I list in Annex 1). The analysis covered 15 countries, 9 of which have a category I list. When comparing the situation within the different sectors, **progress is most advanced in the arable species compared to vegetable species, aromatic plants, fruit and vines**. This may be due to the fact that arable species are easier to multiply and often propagated by farmers within their own countries, whereas it is more challenging to produce high quality vegetable seeds especially under organic production (Padel et al. 2021). Moreover, most vegetables cultivars are

² As of July 2024, the 9 European Union Member States are: Belgium, Denmark, France, Germany, Luxembourg, the Netherlands, Spain and Sweden and Italy. Source: [Category1_July2024.pdf](#) and [Organic Seeds - Organic Seeds - Plant Protection and Certification - CREA](#)

F1 hybrids and, in order to produce F1 hybrid seed, the seed producers need to grow male and female inbred lines under organic conditions, which by nature are less vital and more susceptible to biotic and abiotic stress. Some of them might not be competitive enough to outgrow weed. This led to a specialization and delocalisation of the seed system. In other words, vegetable seed multiplication frequently takes place in few countries with optimal growing conditions and these seeds are then globally distributed. Open pollinated vegetable cultivars are more vital; however, their limitation consist in the fact that their uniformity is not meeting the registration criteria and supermarket expectations.

In addition to the development of Category I lists, each Member State is responsible for maintaining and regularly updating their own **national database to record the availability of organic and in-conversion PRM** (excluding seedlings but including seed potatoes). These [databases](#) are in national language(s) and vary in format, from computerised systems to simple Excel spreadsheets. Hence, suppliers wishing to list their offers in multiple national databases are faced with challenges of formats and languages. To address this issue, the [European Router Database](#) (see Figure 1) was developed as part of the EU-funded [LIVESEED](#) project, the predecessor of the LiveSeeding project. This free and optional tool allows suppliers to manage their offers across all EU Member States, as well as the UK, Iceland and Switzerland, from a single account. The European Router Database can integrate with national databases either through automatic data transfer or a manual download function. Its aim is to enhance market transparency and ultimately increase availability. However, its effectiveness depends on adoption by national authorities.



Figure 1: Screenshot of the European Router Database (www.seeds4organic.eu), developed in the LIVESEED project, managed and further enhanced during LiveSeeding by FiBL Germany.

While the EU Regulation 2018/848 does not oblige Member States to establish **organic PRM expert groups**, such groups are considered crucial to successfully respond to the challenges of the organic PRM sector. These multi-actor expert groups bring together relevant stakeholders involved in the organic PRM supply chain (competent authority, farmers' representatives, PRM producers/suppliers, crop experts from research institutes, certification bodies, database managers, etc.). PRM expert groups can advise the competent national authorities on species categorisation within the different three derogation categories, discuss how to increase the production and use of organic PRM, identify challenges and bottlenecks, etc. To the extent of our knowledge, such groups already exist in Austria, Belgium, France, Germany, Latvia, Denmark, the Netherlands, the United Kingdom, Sweden and Italy (as of March 2025), and within the context of the LIVESEED project have been set up in Hungary and Romania.

To have a clear strategy at national level on increasing organic PRM production and use, and phasing out derogations, a **national roadmap or decision tree** on how to achieve this with short-term and long-term goals is recommendable. PRM companies and suppliers need reliable data on the actual demand for organic PRM in the different EU countries and intermediate deadlines for ending derogations for the different crops to invest in scaling up organic PRM production. On the other hand, farmers need to be made aware on the benefits of organic PRM and a clarity on the phasing out of

derogations. A clear analysis and overview of the offer and demand at national level is also an important step in the process.

The establishment and active facilitation of a **national roadmap project** could formalise the commitment to increase the use and production of organic PRM, and to develop national policies and funding and legal frameworks related to this commitment. It will create a clearer timeline and set intermediate goals, while monitoring progress. A national roadmap project should closely involve or set up a PRM expert group. From the LIVESEED project it became clear that one of the main policy recommendations for national authorities to increase the use and production of organic PRM is to initiate a national roadmap project, as indicated in the policy brief [‘a national roadmap towards 100% organic seed’](#).

Objectives of this deliverable

This deliverable showcases six examples of national roadmap projects and practical examples, describing the stakeholder involvement, challenges encountered, success factors and impact. It aims to inspire and support national authorities and stakeholders, in developing their own strategies for achieving 100% organic PRM use. The report provides valuable information and recommendations that can be adapted to different contexts, helping other countries establish similar initiatives effectively.

3. Methodology

To evaluate the development, success factors, and impact of national roadmap projects and processes, six semi-structured interviews were conducted with the coordinators of the respective projects (see the list of in Table 2). The questionnaire used as basis for interviews is available in Annex 2.

The six countries selected for this evaluation were chosen on the basis of relations established through personal meetings, online meetings and national cross-visits all conducted with the EU funded projects LIVESEED and/or LiveSeeding. Some connections were facilitated by Tove Mariegaard Pedersen from ICOEL in Denmark, who initiated a cross-country exchange meeting where France, Germany and Denmark presented their respective initiatives. Through national cross-visits, the Latvian, Danish, and German national roadmap projects were further connected. After presenting the LiveSeeding project work to representatives of EU member states

during a COP/GREX meeting coordinated by DG AGRI on 26 March 2025, the Italian plan was added to this deliverable. An interview with Riccardo Bocci, Director of Rete Semi Rurali and partner of the LiveSeeding project was made. His liaising with Pier Giacomo Bianchi, coordinator of the National Plan at CREA DC, helped further detail the Italian section.

Additionally, we reached out to other countries (Austria, Sweden and the Netherlands) with relevant initiatives to obtain additional insights into best practices and challenges in achieving 100% organic PRM use. Ultimately, this allowed us to get in touch and interview Matti Leino, Assistant professor at Stockholm University, who actively works on the Swedish projects aiming at increasing the domestic organic vegetable seed production.

Interviewee/ coordinator of the projects	Country	Affiliation	Date of interview	Interview format
Alban Le Mao	France	INAO (National Institute of Origin and Quality)	29 October 2024	Online
Antoine Robert				
Tove Mariegaard Pedersen	Denmark	ICOEL (Innovation Centre for Organic Farming)	28 November 2024	Online
Malene Hangstrup Kræfting				
Ilze Skrabule	Latvia	AREI (Institute of Agricultural Resources and Economics)	23 January 2025	Online
Freya Schäfer	Germany	FiBL (Research Institute for Organic Agriculture)	25 February 2025	Online
Matti Leino	Sweden	Stockholm University and Agroax association	22 May 2025	Online
Riccardo Bocci	Italy	Rete Semi Rurali	9 July 2025	Online

Table 2: Overview of interviewed experts and their affiliations

4. Best practice examples from six countries

4.1 Denmark: “Future-Proof Organic Vegetable Seeds”

a. Project background and objectives

The Danish project “Future-Proof Organic Vegetable Seeds” funded by a Danish agricultural fund for fruit and horticulture, ran from 2022 to 2024, with a recent extension until 2026. The project is led by the Innovation Centre for Organic Farming (ICOEL) and involves horticultural experts. Its objectives are to improve the supply of organic vegetable seed in the demanded qualities and quantities. Additionally, it aims to support the Danish Agency for Green Transition and Aquatic Environment (SGAV) in its work by collecting data on the current supply and demand for organic vegetable seeds, supporting expert group meetings, and identifying challenges to propose actions for improving supply.

The project also focuses on fostering dialogue among seed production stakeholders, building bridges, and communicating the importance of organic seed use for the integrity of the organic sector. Achieving the goal of 100% organic seed by end of 2036 requires a collective effort from all parties.

Additionally, the project aims to establish a European network as a platform for exchange and enhanced communication between countries. Building on the LIVESEED project’s policy brief and its recommendation to develop national roadmaps for transitioning more species and subspecies to Category I (no derogations), the project has tailored these strategies to fit Danish conditions (see Figure 2).

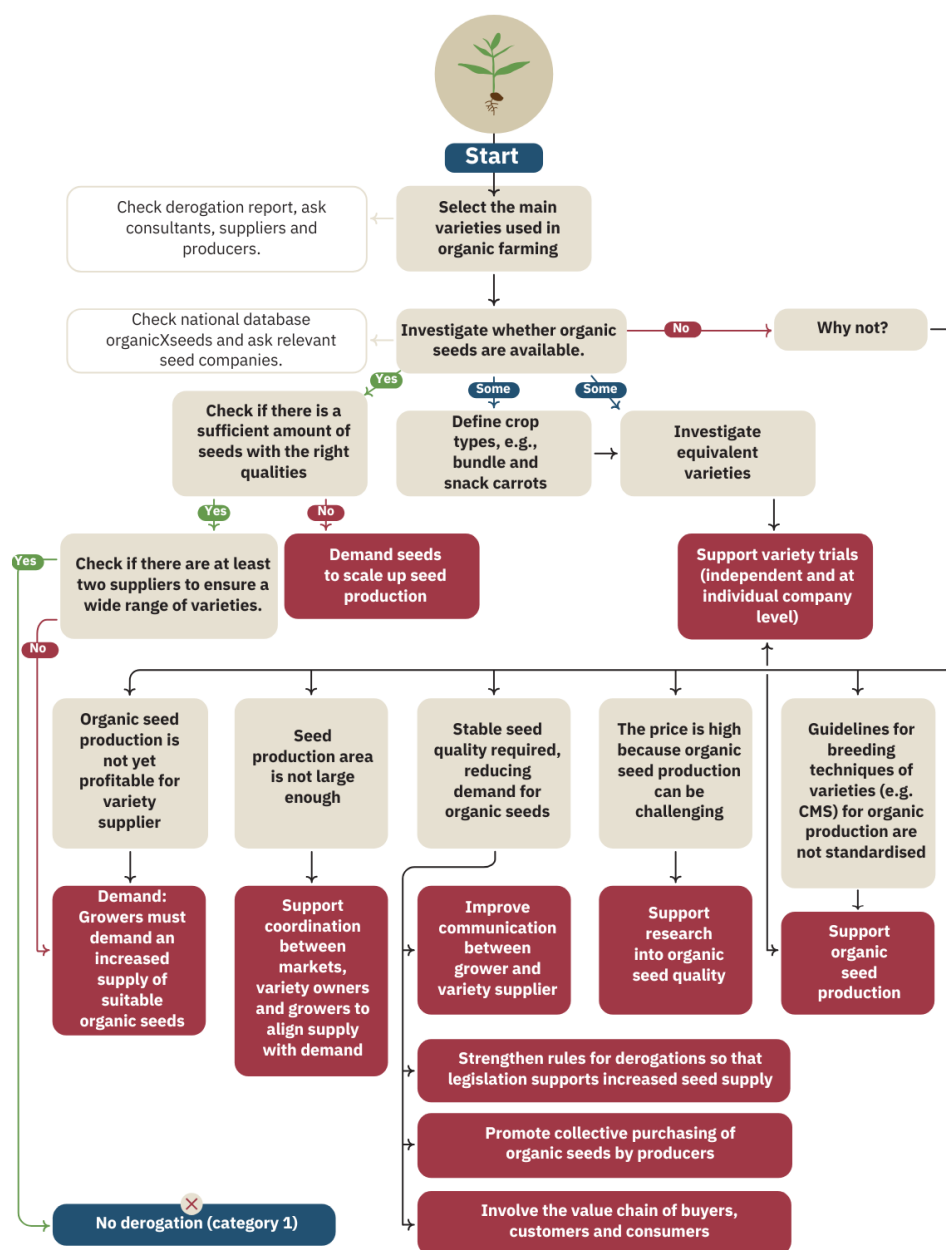


Figure 2: Danish roadmap suggested by the project: efforts to move more species/subspecies to category I (no derogations). Adapted and translated from [this ICOEL webpage](#). Explanation of cell fusion derived CMS can be found in the footnote.³

³ CMS (cytoplasmic male sterility) is a natural trait in some plants that prevents pollen production, making them male-sterile and unable to reproduce. Breeders utilise this to avoid unwanted self-pollination in F1 hybrid seed production. However, CMS can also be artificially introduced by cell fusion of different species (e.g. protoplast fusion of radish with cauliflower) to achieve male sterility. While cell fusion is excepted from the EU definition on genetically modified organisms (GMO) and therefore not strictly forbidden in the present EU Organic Regulation (2018/848), several organic label associations oppose cell fusion derived CMS cultivars and call for a ban or clear labelling regulations.

b. Stakeholder involvement and expert groups

In the past, expert groups in Denmark met irregularly, with little follow-up and no concrete actions. This lack of continuity risks lower stakeholder engagement, as participants did not see tangible progress and benefits from their voluntary contributions. With a boost provided by the project, the Danish Agency has renewed its **efforts to revitalise expert group meetings**. A full-day online meeting was organised with four major crop groups (vegetables, fruit and berries, agricultural crops, and grass and grass mixtures). Unfortunately, the invited seed companies did not attend in the vegetable group meeting, leaving a notable gap in practical expertise on seed supply. According to the project coordinators, it is crucial for seed companies, growers, consultants, and other stakeholders to contribute their practical knowledge on requested cultivars, upcoming seed offers, and specific production challenges. Equally important is ensuring follow-up after each meeting, so that participants recognise the value of their involvement, especially since the expert group can only offer advice. Indeed, the Danish Agency retains the mandate to change derogation categories or implement other actions to boost the organic seed sector. As the organisation of these meetings requires significant time and resources and as authorities may lack insight into the complexity of organic vegetable seed production, the project will support the Danish Agency in coordinating these meetings and in conducting preparatory data collection to enrich discussions.

A key component of the project is to extend its scope beyond Denmark by building a **European network that connects authorities, seed companies, breeders, and organic farmer organisations** across borders. This platform is intended to facilitate exchange and improve the level playing field by sharing successful implementations of expert group models, comparing Category I species, and disseminating knowledge about obstacles in seed production.

Quote Tove Mariegaard Pedersen

We would be much stronger, if we joined forces with other EU countries, both for increasing demand, and also to show seed companies that we are serious about transitioning to organic seed and moving towards Category I if the supply is available.

c. Success factors and innovations

One focal point of the project is to define **clear criteria for transitioning species to Category I** (no derogations). This includes utilising information from neighbouring countries on their Category I species lists and analysing derogation requests over the past few years in Denmark to assess the availability of organic seeds for various vegetable species. The current Danish categorisation system follows the following rules:

- *Category I (no derogations): At least 90% of growers must be able to use the available organic seeds.*
- *Category II (individual derogations possible): 10-90% of growers can use organic seed.*
- *Category III (general derogations): Less than 10% organic seed availability.*

If an entire species cannot be moved to Category I, expert groups, supported by the project, try to redefine the cultivar groups so that specific cultivar groups within that species may still be transitioned. To ensure a smooth adjustment, the project also proposes a warning period before moving species under derogation to Category I, allowing seed companies and growers time to adapt.

Key innovation in the expert groups is the development of **equivalent cultivar lists** to simplify the derogation process. These lists are being created in close cooperation with consultants and seed companies, who provide the necessary specialised knowledge. It would enable the Danish Agency to quickly determine whether derogation request for a specific cultivar could be substituted with an equivalent cultivar that possesses similar qualities and is available in organic. For some crops – especially those with less specialised production – these equivalent lists could be shared at the EU level, while still accounting for regional pedo-climatic and farm-specific conditions.

d. Challenges encountered

Analysis of the Danish market has revealed a **significant gap between the supply of organic seed and the required quality and product properties** that align with market demand. The current availability of organic seeds in Denmark is too low to meet the needs of professional organic vegetable producers, who must compete with foreign growers in the wholesale market. Unlike agricultural crops, where Denmark has many local breeders and seed producers and a large supply of organic seed,

vegetable seed production is highly dependent on foreign companies. These companies often do not prioritise producing organic seeds for the specific cultivars needed by Danish organic growers due to Denmark's small production area.

Furthermore, **organic seed production is often perceived as costly**, due to various factors. In particular, the organic vegetable sector – especially for biennial plants – faces a shortage of robust plants that can withstand long growing seasons required for seed production. Thus, suppliers are hesitant to invest in producing sufficient quantities of the demanded cultivars. This reluctance is further reinforced by the continued availability of derogations, which allow the use of non-organic seeds when organic alternatives are not available in sufficient quantity.

Effective communication about these specific challenges has proven to be a key aspect of the project, helping to prevent misunderstandings and mistrust among stakeholders, including policy makers and authorities. Raising awareness of the complexities of vegetable seed production and to understand different markets for open-pollinated cultivars and hybrid cultivars is essential to encourage engagement of all stakeholders in finding common solutions.

One crucial way to facilitate this dialogue is through **local field demonstrations**. These demonstrations would allow Danish growers to test cultivars with available organic seed and explore alternative options. However, efforts to secure funding for such initiatives have so far been unsuccessful in the project.

e. Outcomes and impact

The Danish authorities are implementing the roadmap as proposed by the project, making it a valuable case study for assessing its feasibility, effectiveness, and potential adaptability in other contexts.

One of the key takeaways from the Danish project has been the **crucial role of communication**. The first part of the project focused on national and international dialogue, networking with stakeholders, and ensuring that everyone is aware of the challenges and goals of phasing out non-organic seed. Solutions must be developed collaboratively, involving all stakeholders in the process. The establishment of regular expert group meetings has proven vital for strengthening communication.

The next steps of the project are to **further reinforce international networks**, focusing on specific crops to highlight demand across borders and provide seed companies with a clearer picture of market potential for organic seed production in key cultivars.

4.2 France: Species categorisation system

a. Project background and objectives

EU Regulation 2018/848 defines three derogation procedures based on the availability of organic PRM. France has adopted a progressive approach by introducing a fourth derogation category – the **Alert Screen** – allowing for a more structured transition of species up the ladder, ultimately transitioning them to Category I, which represents full compliance with organic seed use. France’s unique categorisation system functions as an ongoing mechanism to systematically assess and update the category of species within the derogation framework. Table 3 outlines the evaluation process within the derogation framework of the EU regulation.

Derogation category	Regulatory reference (EU) 2018/848	Description (adapted and translated from this official webpage)	Evaluation process in France
Category I (no derogations)	Annex II Part I point 1.8.5.6	Organic PRM of the species is available in sufficient quantity and cultivar, meaning no derogations are granted (except for exceptional cases). Strict use of organic PRM is required.	Assess whether the current status remains justified or if availability issues have arisen. Updates occur swiftly as Category I species are generally well-established.
Alert Screen (individual derogations subject to conditions)	Annex II Part I point 1.8.5.1	Transitional phase between Category I and II, signaling upcoming changes to suppliers and users. Used when availability is sufficient, but the market needs time to adapt.	Evaluate whether the transition timeline remains appropriate. Typically set for two to four years to allow seed companies to scale up production. One-year transitions are avoided to ensure supply stability.
Category II (individual derogations possible)		General case where derogations are permitted if organic PRM is unavailable, and users provide justification.	Identify species where organic seed production is expanding. If progress is observed, move the species to the Alert Screen and define a transition timeline to Category I.
Category III (general derogations)	Annex II Part I point 1.8.5.7	Applied when the supply of organic PRM is considered non-existent or inadequate. Farmers must declare the quantity of non-organic PRM used.	Assess whether any species can be moved to Category II as availability improves.

Table 3: Derogation categories and evaluation process in France

The evaluation process is carried out by five **multi-actor expert groups** in France, each specialising in different crop groups. These groups, coordinated by the National Institute of Origin and Quality (INAO), meet twice a year to review and adjust categorisations based on both expert market knowledge and detailed derogation request data. Experts receive comprehensive data on the number of derogations granted annually, including requested cultivars, plant material types (e.g., tray plants, bare-root plants), and the justification for each derogation. Additionally, they assess stock availability and supply challenges within their sector. This allows them to evaluate whether their production can meet the demand for organic PRM. For instance, if they determine that production can sufficiently cover the needs currently met by derogations, they may propose an upgrade in derogation category.

When a species transitions to Category I, three to four consultants are assigned to **monitor the availability of organic seed**. In case of unforeseen shortages e.g. due to extreme weather events, they receive alerts from users, distributors, or seed producers, allowing for a swift reaction to potential shortages. Only if the organic stock is depleted or critically low, a temporary derogation for the specified cultivar group may be granted for a season or a defined period. While temporary derogations are generally avoided to maintain stability, they are not seen as failures but rather as part of the normal progression towards full compliance. The possibility to react in emergencies and when there is a real need, plays an important role to reach a consensus on the classification of crop species in category 1 (no derogation).

b. Stakeholder involvement and expert groups

The National Institute of Origin and Quality (INAO) is a public administrative institution with legal personality, under the French Ministry of Agriculture, Food and Forestry. The National Committee on Organic Agriculture (CNAB) is the core of the organic agriculture division within INAO. Its members are appointed by the Ministry and oversee various sector-specific commissions, including the Seeds and Plants Commission, led by President Alban Le Mao. This commission consists of five specialised expert groups focusing on: arable crops, fruit trees, forage crops, vegetables and vine plants (see Figure 3). Each of these expert groups includes one or two CNAB members alongside sector specialists from industry, inter-professional organisations, seed companies, producers, distributors, and farmers.

Expert groups, coordinated by INAO, typically meet twice per year to review the status of species one by one. They provide advisory opinions on potential changes in

derogation category, but they do not have decision-making authority. Their recommendations are passed on to the Seeds and Plants Commission responsible for making final decisions. While expert groups focus on technical aspects of organic seed production, the Seeds and Plants Commission considers both technical and policy perspectives. This ensures alignment with the broader principles of organic farming. Although uncertainties may arise, the system avoids lengthy debates within the expert groups, as they are advisory bodies rather than decision-making bodies.

The expert groups operate with minimal costs since most participants volunteer their time. Many have a commercial involvement in the sector, while others, such as professionals from organic associations, producer groups, and advisory services, contribute their expertise without direct financial ties to seed sales.

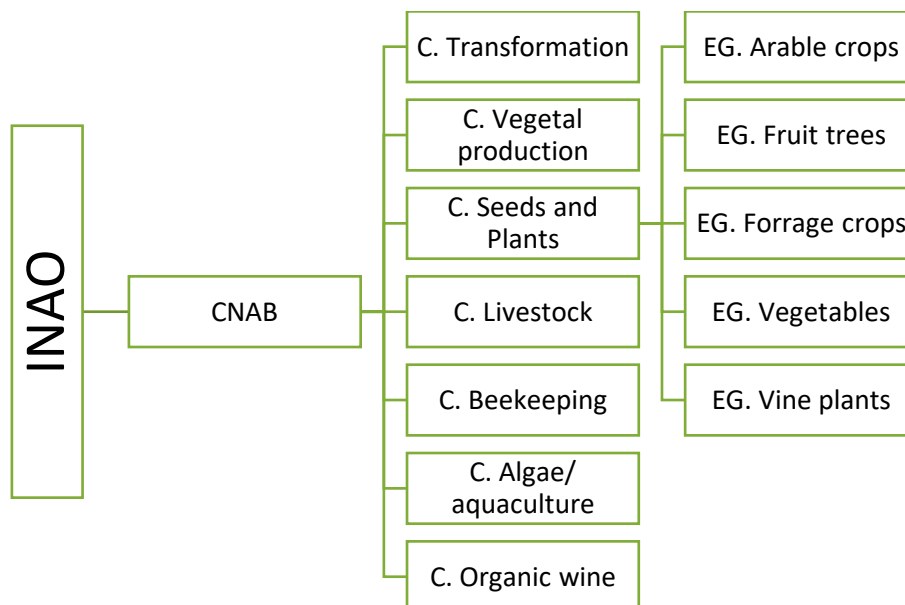


Figure 3: Overview of INAO and CNAB Structure, its Commissions (C.), and Expert Groups (EG.).

c. Success factors and innovations

The **composition and diversity of the expert groups** plays a key role in the success of the French species categorisation system. Many members of the expert groups have commercial implication in using organic seeds and plants. This leads to a push for stronger regulatory constraints. For instance, producers expressed dissatisfaction when they had to dispose of organic strawberry and raspberry plants, despite numerous derogations for the use of non-organic PRM being granted. PRM users are also well represented, playing a key role in ensuring that the supply aligns with their needs.

The shared goal of all parties involved is to meet the 2036 target of zero derogations. The **objective is well-understood and agreed upon by all expert group members**. Rather than debating this objective, discussions are centred on the next steps, i.e. which species should be moved to Category I next and how to achieve that transition. The Seeds and Plants Commission relies heavily on these experts for their decision-making, as it would be impossible for them to have in-depth knowledge of the entire sector.

Quote Alban Le Mao

The key is to manage the diversity of interests and ensure that everyone is brought to the table. The objective must be clear – aiming for 2036 – and the transition to Category I. It should be as smooth and harmonious as possible. To achieve this, it's essential to involve all relevant stakeholders, including farmers, seed producers, users, and the competent authorities. It can work if we manage to get everyone to move in the same direction.

Another key factor is the **strong interprofessional representation** within the expert groups, particularly through SEMAE, the French Interprofessional Organisation for Seeds and Plants. As a well-established private body, SEMAE unites all unions of stakeholders involved in seeds, including consumers, and is responsible for seed quality control. Its funding primarily comes from operator membership contributions. Its broad and structured network across various industries facilitates effective information sharing and collaboration, ultimately accelerating the transition to organic seed production and supporting regulatory processes. SEMAE helps lay the groundwork, enabling prior reflection before expert group discussions. As a result, experts enter the meetings with well-formed ideas based on earlier preparatory work. Additionally, SEMAE is the main developer and manager of the French national database for organic PRM, which provide precise data on organic seed production and the organic seed requirements. This database serves several purposes: it facilitates derogation requests, showcases the organic seed offers, and acts as an economic tool for data collection and organisation.

d. Challenges encountered

Several factors can hinder the transition of species within the categorisation system. While the system has been successful in addressing easier-to-manage species, the focus is now **shifting to more difficult-to-multiply species** with smaller production volumes. This presents a challenge for the next decade, as bringing these niche species into the Alert Screen category and ultimately achieving Category I will be more complex. Some stakeholders have already expressed concerns that reaching Category I for certain species may be nearly impossible due to unpredictable production patterns. This is the case especially in the vegetable seed sector, which has seen limited progress, with many derogations still in place. A growing concern comes from **higher production costs** associated with using organic seeds, especially for certain cultivars produced in small quantities, making it challenging for seed companies to invest in both organic and non-organic production. Additionally, organic seeds from other countries may be cheaper, because of less strict rules or lower wages, which poses another challenge as these prices are difficult to match. In response, France is increasingly seeking to coordinate derogation categories across European countries to ensure a more harmonised approach in the future.

Additionally, more fundamental issues have emerged. For instance, the existing **national database** requires improvements to better accommodate perennial plants, which would enhance data quality on availability and the number of derogations. Vine plants and fruit trees are currently classified under Category III mainly due to technical and sanitary challenges in the production of organic PRM. Producers are reluctant to shift to organic due to **concerns about quality and economics**. Producers are even more reluctant, because they do not understand why organic plants should be imposed on them when the first harvest will often take place more than three years after planting. Many of them consider that a conversion period could be preferable.

e. Outcomes and impact

The species categorisation system, including the Alert Screen, has been in place in France for over ten years. Several species and subspecies could be moved to Category I and the Alert Screen category, although some challenges remain (see **Pogreška! Izvor reference nije pronađen.**). An essential part in the species categorisation system is bringing together people from diverse backgrounds, all of whom share a **common goal and a clear understanding of the overall objective**. Providing stakeholders with early notice of significant upcoming changes has proven crucial in generating

trust and minimising resistance to the transition toward organic seeds. This approach allows them the time to adjust, plan, and begin organic production, ensuring that seed multiplication businesses are not abruptly disrupted by new requirements.

Expert group	Species	Subspecies	Derogation category, year of transition to Category I
Vegetables	Aubergine	Long black	Category I, 2022
	Parsnip	OP	Category I, 2025
	Chinese cabbage Pak Choi	/	Alert Screen, 2028
	Parsnip	F1	Alert Screen, 2030
Arable crops	Soja	Group 1 and 2	Category I, 2022
	Potatoes	/	Category I, 2020
	Camelina	/	Alert Screen, 2026
	Chickpeas	/	Alert Screen, 2028
Forage crops	Lucerne	/	Category I, 2024
	Alexandrian clover	Multi-cut	Category I, 2024
	Alexandrian clover	Single-cut	Alert Screen, 2026
	Meadow fescue	/	Alert Screen, 2026

Table 4: Excerpt from species categorisation system in France (as of January 2025), highlighting a selection of species. The complete document is available [here](#).

4.3 Germany: Roadmaps to increase supply and demand of organic plant reproductive material

a. Project background and objectives

The project runs from September 2023 to August 2026 and is funded by the German Ministry of Agriculture under the Federal Organic Farming Programme. The project is coordinated by FiBL Deutschland e.V. (Research Institute of Organic Agriculture) in cooperation with Bioland Beratung GmbH who represent the German organic farming association Bioland as well as the network V.Ö.P, in which the organic farming associations Naturland and Demeter are represented. The project consists of **five content related project packages**:

- *Arable crops (lead by FiBL);*
- *Vegetable crops (lead by FiBL);*
- *Vegetatively multiplied crops (lead by Bioland);*
- *Role of supply chain actors in increasing organic seed demand (lead by FiBL);*
- *National and international stakeholder exchange (lead by FiBL).*

There is a **“sister” project** “guide to produce and regulate **organic ornamentals** in Germany” that accomplished this project on the ornamental crops coordinated by Bioland Beratung GmbH. There is an ongoing exchange between the two projects.

The project addresses the national **Organic Action Plan “Biostrategie 2030”** which aims to reach 30% organic farming area in Germany by 2030. With the expansion of organic farming to 30% of German farmland by 2030 and the simultaneous expiration of derogations for non-organic seed and planting material, supply shortages could arise in the long term. For this reason, there is a very high demand for the expansion of organic seed and plant production. The goal of the roadmap project is to set the course for an improved supply and use of organic seed and planting material.

b. Stakeholder involvement and expert groups

There are several bodies in Germany that discuss issues related to the interpretation of EU legislation on organic farming. The Conference of Ministers of Agriculture (AMK) is a specialised political conference for agriculture, forestry and rural development. The AMK usually meets twice a year. The Länderarbeitsgemeinschaft Ökologischer Landbau (LÖK) is a permanent working group of the Conference of Agriculture Ministers. Among other things, it is responsible for the interpretation of EU legislation on organic farming, the German Organic Farming Act and the legal bases based on it.

The LÖK is made up of the state advisors for organic farming from each of the German states. Recommendations from the Standing Committee are discussed by the LÖK and, if agreed, forwarded to the AMK as a draft resolution. The AMK votes on the draft resolutions by circulation. The Standing Committee (StA) is a working body of the Länderarbeitsgemeinschaft Ökologischer Landbau (LÖK). It consists of representatives of the authorities responsible for the supervision of organic agriculture in the federal states and usually meets three times a year. The Standing Committee draws up recommendations for the harmonised interpretation of EU legislation on organic farming. These recommendations are forwarded to the LÖK.

In Germany there are **three national organic seed and planting material expert groups** for arable crops, vegetables and aromatic/medicinal plants, and trees and ornamental plants. These three groups are chaired by State advisors for organic farming and are mandated to advise on the classification of crops or crop sub-groups as Category I, II or III and other provisions related to the use of non-organic PRM. These recommendations are forwarded to the Standing Committee (StA) and the National Working Group on Organic Agriculture (LÖK) for evaluation. The PRM expert groups are composed of representatives of breeders, traders, suppliers and multipliers of organic PRM, organic farm advisors, organic farming associations, seed associations, national competent authorities, organic inspection bodies, researchers and managers of the national organic PRM database. Participation in the PRM expert groups is on a voluntary basis and there is no remuneration for participation.

The aim of the project is to support and provide funding and capacity for the ongoing work of the three existing PRM expert groups by collecting missing data, preparing analyses and initiating additional working groups. The project is structured as a **multi-stakeholder project** with the aim of involving as many stakeholders as possible. The project consortium consists of only two project partners (FiBL and Bioland), while stakeholders are involved and compensated through individual fees for their input and participation in working groups. This unique project structure allows for stakeholder involvement on demand, based on the best distribution of knowledge for each crop discussed.

c. Success factors and innovations

The project carries out in-depth analysis of more than 20 arable crops and 20 vegetable crops for which there is currently a shortage of organic seeds, and which are therefore classified as Category II (individual derogation) or III (general

derogation). In addition, the project identified some **overarching milestones and barriers** that need to be addressed to pave the way for more organic seed and planting material. The identified barriers relate to topics such as increasing the reacting time adjusting classifications to categories (e.g. from Cat I to Cat II) in case of supply shortages or resistance break troughs, clear guidelines and processes to on derogations for reason D (test in small-scale) to allow farmers testing new cultivars that are not available from organic multiplication is the first years after the release of a new cultivar. The project was able to demonstrate that by overcoming overarching barriers and focusing attention on the 'right' people, strong incentives can be created to promote organic seed production. In addition, the project funding creates the space and capacity to work on neglected issues, follow up on open questions, collect and analyse hard-to-collect data, bring stakeholders together to share potential solutions, and identify research gaps that need to be addressed in the future.

d. Challenges encountered

There is a **strong need for cooperation with neighbouring countries**, especially France and the Netherlands, to better understand the potential supply of organic seeds. This is particularly important for vegetable seed, but also for alfalfa, clover and grasses. In particular, the larger vegetable seed companies would like to see an aligned strategy for certain crops and their categorization to increase a more harmonized classification between EU countries.

There are several **major challenges from the vegetative material suppliers**. Both phytosanitary and economic reasons limit the production of organic vegetative material in Germany. The actors producing conventional material are reluctant to propagate under organic conditions. They are not yet convinced to conduct special efforts for organic vegetative production, as the market does not seem to be ready to pay for the extra efforts for producing organic plant reproductive material. These actors ask for financial support for this transition.

Quote Freya Schäfer

The so-called Category I, (1.8.5.6. NO DEROGATION) is the strongest incentive an EU Member State authority can have. If a crop is classified as Category I, seed companies will definitely increase their organic seed production. Otherwise, they will lose their customers to whom they currently sell untreated non-organic PRM. It is up to the EU Member State authorities to decide to take a progressive

approach to adding more crop species and sub-groups of crops to their Category I list. For many crops and many species in the EU, the market is ready to increase organic seed production. This is not the case for vegetative propagated material, where the organic PRM market is underdeveloped. But for the main arable and vegetable crops, the EU market is ready to meet the 2036 target.

Several workshops and meetings with actors in the supply chain (such as processors, wholesalers and retailers) revealed that there is a **lack of awareness** on the whole issue of organic seed. Many actors didn't know that there is not enough organic (vegetable) seed available. However, it became clear that the supply chain actor could play a strong role in creating an increased demand for organically multiplied seeds.

e. Outcome and impact

Data is lacking for many crops, so the project aims to collect individual stakeholder knowledge, also known as tacit knowledge. The project will assess more than 20 arable crops, 20 vegetable crops and all relevant vegetative propagated crops such as fruit trees, vines and berries for a foreseen phase-out of the derogations for non-organic plant reproductive material by the end of 2036. The results of the **detailed analysis** carried out in the project will be presented in a final report. This report will be agreed with the various committees and expert groups before publication. The report will be published in English and German.

While the project aims to answer the question of whether a phase-out of derogations by the end of 2036 is economically feasible, the project has also had a direct impact. Based on the data analysis prepared prior to each expert group meeting, changes in the derogation regimes, crop classifications, crop sub-groupings and new measures could be directly implemented. In this way, the project was able to **improve processes on the ground and provide a better understanding of possible future directions.**

4.4 Latvia: Developing the necessary measures to boost the use of organic seed

a. Project background and objectives

The Latvian project "Developing the necessary measures to boost the use of organic seed" lasts from 2023 until the end of 2025. The project is financed by the Latvian Ministry of Agriculture in the framework of support for applied research projects in agriculture and executed by AREI (Institute of agricultural resources and economics). The project has **three main objectives**:

- *Develop recommendations and criteria for creating a list of equivalent crop cultivars,*
- *Create a model for a crop cultivar trial database in Latvia,*
- *Develop proposals to reduce the granting of derogations. The focus of this project is on arable crops, and more specifically on cereals.*

The main tasks to be achieved are:

Gain experience from other EU Member States	• <i>Study visit to Denmark</i> • <i>Study visit to Germany</i> • <i>European projects LIVESEED and LiveSeeding</i> • <i>EU Router Database</i> • <i>EU and national Regulations</i>
Compilation of information on cultivar tests (official and non-official) in Latvia	• <i>Survey of seed distributors and breeders' representatives</i> • <i>Visits to demonstrations and field days</i>
Evaluate the justifications for requesting the derogations and the reasons for choosing cultivars for which only non-organic seed is available	
Compile information on cultivars used in organic farming in countries with similar growing conditions	
Organise organic field trials for available foreign cultivars at three locations	
Assess options for developing a database of trial results, accessible to organic farmers	
Develop recommendations for criteria for a list of equivalent cultivars	

Preliminary results from the **survey** of seed distributors and breeders' representatives showed that seed distributors are mostly companies or representatives from abroad,

which are generally reluctant to sell organic seeds (because they can sell with less efforts non-organic seeds) to organic farmers. Additionally, many cultivars are not tested in Latvian growing conditions, neither for conventional nor organic conditions.

b. Stakeholder involvement and expert groups

An expert group on organic seed was established by the Ministry of Agriculture in 2006. It gathers experts on cereals and fodder, potatoes, vegetables, and vegetative propagation material, and representatives from the Ministry of Agriculture, the plant protection service, and the organic inspection/control bodies. This group meets at least once a year, with the main task to check reports on organic seed and the database and to accept general derogation lists. It gives recommendations but has no legal binding. For example, several proposals for putting certain crops on the Category I have been made but have been rejected by the decision-making entity (Ministry of Agriculture).

Within the current project, **stakeholder involvement beyond the organic seed expert group** is very important. Such as farmers, farmer representative organisations, seed producers, seed association, plant protection service (which is the seed certifying body and maintainer of the seed database), organic farming inspection bodies etc. Several **seminars and field workshops** (approximately 3 per year) have been organised with different topics (according to the main tasks of the project). For example, a seminar to discuss the list of recommended cultivars was organised and a seminar on how to improve the functioning of the organic seed database.

c. Success factors and innovations

The first success factor is that through the project there is a **better understanding of the current situation** and the survey to stakeholders contributed to that. However, many challenges remain, which are described in the chapter below.

One focal point and success of the project is to **test cultivars under organic and Latvian conditions** and to create a list of recommended cultivars that is easily accessible for farmers. Furthermore, a **database compiling all** data in one place will be created. This means data from the projects' field trials, data from breeders and companies and possibly also the evaluation of farmers. This would significantly increase the knowledge on cultivars suitable for organic agriculture and on organic seed, and therefore their use.

d. Challenges encountered

From the investigation into the current state of play of organic seed in Latvia, it became clear that a major issue is still the **low availability of organic seeds**. The organic seed database shows insufficient offers and a low number of cultivars per crop. As it is currently not very user-friendly, options are being explored to change to another approach and platform (e.g., organicXseeds). At the moment, the **database** also does not facilitate well the inclusion of offers from outside Latvia, which hampers the transition to more organic (vegetable) seed use.

Quote Ilze Skrabule

There is a general lack of data and data exchange on crop-specific organic agricultural area, organic seed use, seed multiplication area, volume of farm-saved seed and who produces or sells organic seed. Our project aims to bring a clearer picture of the status quo and move forward from there.

Additionally, there is a lack of data and **lack of data exchange among actors**. Data on seed use (untreated conventional, organic or farm-saved) and who sells it is incomplete and needs of organic seed in terms of the organic agricultural land/crop is lacking. It seems that several organisations have a piece of the puzzle of information, but they do not exchange. The Ministry of Agriculture, together with this project tries to connect these stakeholders to bring this information together.

e. Outcomes and impact

The Latvian national project on organic seed use led to a **deeper understanding of challenges**, such as the ease of obtaining derogations and the lack of local organic seed production and distribution. It resulted in **key recommendations**, including a list of equivalent crop cultivars and proposals to improve testing requirements. The project created a recommended cultivar list based on field trials and **assessed the organic seed database**, identifying the need for better functionality and mandatory reporting. Stakeholder engagement through seminars and workshops fostered **collaboration** among farmers, seed producers, and policymakers. International

studies provided insights from other countries and the project influences policy discussions on reducing derogations and improving database transparency.

4.5 Sweden: Increasing domestic organic vegetable seed production by 2036

a. Project background and objective

Since 2022, **several projects**, managed by Agroax Association, **were initiated in Sweden to increase the domestic production of organic vegetable seeds**. While historically, the Swedish seed production allowed to fill domestic needs, the current situation is the opposite: seed production –both conventional and organic– is very limited. As a result, Swedish professional vegetable cultivation has been entirely dependent on foreign varieties and imported seeds. Therefore, the project aimed at reaching 100% organic vegetable seed by 2037, in line with EU requirements. Given the relatively limited demand for organic vegetable seed in Sweden, such objective was identified as feasible.

The first project started in 2022 and focused on **participatory trials** with farmers to test organic seed cultivation. It was funded by the Swedish Board of Agriculture (Jordbruksverket), which shows a true interest for organic seed production. It resulted in an important interest in these questions and led to another project starting in 2024 and running until 2025/6. It is financed by the Ekhaga Foundation and aims to follow participatory research work with farmers and **experiment with the production of vegetable seeds**. A third longer-term project (2024-2027/8) was initiated to build a **national network** of seed actors to support sustainable organic seed production in Sweden.



Figure 4: Seed cultivation of leeks, “Starozagorski Kamus”, at Martin Fellkvist and Frida Thörn’s Skilleby Garden, Järna. Photo from Elisabeth Ögren. From the [organic seed production handbook](#). Agroax, 2024.

b. Stakeholder involvement and expert groups

One of the particularities and strength of the project is that it is **farmer-driven**, meaning it started with the demands and desires of farmers who are included in all steps of the project. The project began with 8 certified organic farms, mostly small scale, each choosing one or several vegetable cultivars that they would multiply. During the years 2022-2023, they cultivated 17 vegetables species and tested different techniques for cultivation, harvesting, cleaning and carried out analysis of the seeds produced in terms of germination and purity (see Table 5). This hand-on approach allowed to give power and autonomy to farmers in their choice of variety and approach to seed production, as well as mutual learning between farms' experimentation and dissemination of knowledge.

Annual Self-Pollinating Species	Lettuce, tomato, garden pea
Annual Cross-Pollinating Species	Broad bean, dill, open-field cucumber, radish, sweet corn, spinach
Biennial Cross-Pollinating Species	Rutabaga, onion, carrot, parsnip, leek, beet, white cabbage

Table 5: Species included in the project on seed cultivation in 2022-2023. Translated from Swedish to English from the [organic seed production handbook](#). Agroax, 2024.

Swedish farmers are particularly interested in **circular approaches** –producing and sharing their own seeds- and the project was built on this cultural asset. This also gives rise to the desire to create a vegetable seed exchange network, as is already the case for arable seeds.

In parallel, a **national stakeholder network** has been developed to foster cooperation and alignment of research programmes and policy developments to farmers' needs. The network brings together farmers, public authorities, gene banks, seed companies and research institute, among others. While this network is promising, it does not serve as an official seed expert group and is not involved in the derogation procedure.

c. Success factors and innovations

The unique farmers-driven approach enabled several successes. By giving farmers both the choice and responsibility for variety selection and seed production, the project fostered **strong engagement, peer learning, and practical results**. This approach constituted a solid basis for the creation of the national seed network and the alignment of farmers' needs with research and policy.

Quote Matti Leino

I think if we should be able to restore any kind of seed production in Sweden, we need to do it in a completely different way, starting from the farmers themselves and working from downwards.

d. Challenges encountered

Working on organic seed production often leads to other reflections and areas of work: organic breeding, advocacy or creating a seed database. In the case of Sweden, the choice was made not to disperse and rather to remain focused on organic vegetable production, which is already in itself a challenge.

Several other technical and economic challenges remain. **Climatic limitations** are an important technical challenge. While several species are well adapted to Nordic conditions, some species remain difficult to produce in Sweden. This therefore raises concerns about the supply of organic seeds. As in other national contexts, the **dependence on hybrids** for some species is high, and farmers may struggle to switch to open-pollinated varieties. This is particularly the case for species like tomatoes and cucumber, although some open-pollinated varieties are becoming increasingly interesting. The **economic feasibility** is another area of concern as seed production is not economically competitive with imported seeds. Some positive steps were made by successfully selling small seed packages, but the economic viability remains a concern.

e. Outcomes and impact

One of the key takeaways from the project is that **restoring vegetable seed production in Sweden is possible**, even if not for all crops. Initial concerns about the difficulty of producing high-quality seeds under Nordic conditions have been partly overcome, with encouraging results demonstrating that high-quality organic seed can be produced locally by farmers.

The project also showed that **small-scale seed production is viable** in Sweden—something that was previously considered unrealistic. Unlike vegetable farming, seed production requires relatively little space, which is well-suited to Sweden's scale of

demand. This shift has been supported by the development of modern equipment tailored to small-scale organic farming, making the work more accessible and efficient. Finally, this project allowed to develop and publish a [handbook](#) which summarize the lessons and experience from the project financed by the Swedish Board of Agriculture. The handbook is divided into several sections, outlining the importance of reintroducing seed production in Sweden, the trials and techniques tested during the project, and practical guidance for organic seed cultivation. It also addresses regulatory frameworks, economic aspects, seed-borne pests, and best practices for ensuring seed quality and resilience.

4.6 Italy: National Plan for organic seeds

a. Project background and objective

In September 2023, after more than two years of stakeholder negotiations, the Italian Ministry of Agriculture adopted a National Plan for organic seeds ([Piano Nazionale delle Sementi Biologiche](#) - PNSB), as part of broader efforts to promote the protection, development and competitiveness of organic agriculture in Italy. The overarching objective is not only to increase the availability of organic seeds but also to improve their quality—genetic, phytosanitary, and technical—with a specific focus on varieties adapted to organic systems and diverse environmental conditions.

With a budget of €2 million over three years of implementation, the implementation phase is planned to start in September 2025. Unlike the two previous plans on organic seeds, which mainly focused on research, this new plan takes a **broader and more integrated approach**. It is divided into six “**macro areas**” and involves a diverse range of partners, including researchers, farmers and value chain actors:

- **State of the art**, aims at analyzing the organic seed sector and its evolution over time, to address the current lack of data. Targeted surveys and estimation of the market value of the sector will be conducted.
- **Supporting value chain in organic seeds**. This macro-area aims at identifying actions to support the production, dissemination, and use of organic seeds. The creation of technical committees for the main supply chain is foreseen (cereals and fodder, horticulture, fruit, nurseries).
- **Innovation**, which will conduct participatory and decentralized plant breeding through collaboration with farmers, technicians, and researchers. The objective is to select plants and develop evolutionary populations that meet the needs of organic farmers and to distribute them. Additionally, networks to test varieties under organic conditions will be created.
- **Quality of seeds and plant propagation material**. This macro-area seeks to manage the organic seed database and implement European measures for the registration of organic varieties and for the marketing of organic heterogeneous material (OHM). Planned actions include identifying issues in the nursery supply chain for the production of certified organic plants and proposing technical and scientific solutions. Guidelines for protocols for the production of organic propagation material will be developed.
- **Dissemination, communication and training**, to promote information on the plan. Articles and publications will be published, and conferences and open days will be organised.

- **Coordination**, to ensure consistency with the overall objectives and between the different macro-areas and to promote synergies. Meetings with project participants will be arranged, and progress reports will be published.

The plan is not directly managed by the Ministry, but by the Council for Agricultural Research and Economics (CREA). CREA DC (Plant Protection and Certification) serves as the overall coordinator, with different CREA research centers responsible for each macro-area (see Figure 5).

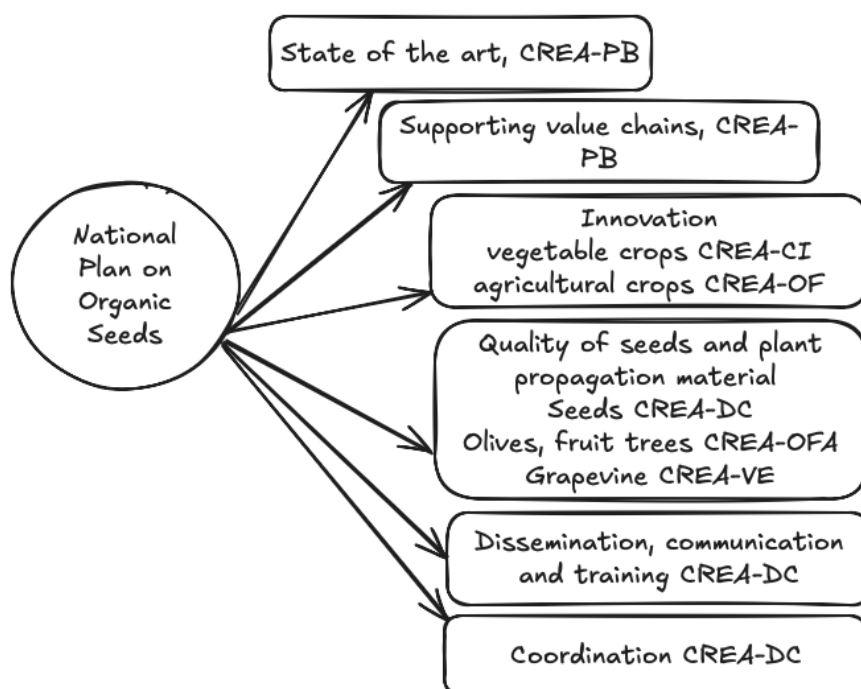


Figure 5: The six macro-areas of the National Plan for organic seed and their coordinators. Acronyms are: CREA-PB: CREA's Policy and Bioeconomy Research Center; CREA-CI: CREA's Centre for Cereal and Industrial Crops; CREA OF: CREA's Centre for Vegetable & Ornamental Crops, CREA DC: CREA's Centre for Plant Protection & Certification, CREA OFA: CREA's Centre for Olive, Fruit & Citrus Crops, CREA VE: CREA's Centre for Viticulture & Enology. Source: CREA-DC.

b. Stakeholder involvement and expert groups

Stakeholders were actively involved in the plan's design phase. This collaborative phase allowed for the definition of macro-areas and inclusion of innovative activities, such as participatory breeding with farmers, which otherwise might have been overlooked. This **co-creation approach** opens the door to the inclusion of various stakeholders during its implementation, from researchers and farmers to value chain actors.

The **expert group on organic seeds** was set up in 2017 by the ministerial decree n. 15130 and is supporting the Ministry of Agriculture for the definition of the red (Category I), yellow (Category II), and green lists (Category III) related to the derogation process. In 2021, alfalfa and *Trifolium alexandrinum* were added in the red list, and in 2023, durum and soft wheat, barley, common and Byzantine oat, emmer and monococcum.⁴ In 2025, although 9 species are in the red list, the number of derogations remains high and stable, around 90.000 per year (see Figure 6). The group is composed of 12 experts (3 from the Ministry, 3 from the Regions and 6 from farmers' trade unions) plus 5 experts from the seed sector, which includes Rete Semi Rurali and Assosementi. Usually, the expert group meets three or four times per year, and its advice is validated by a ministerial decree.

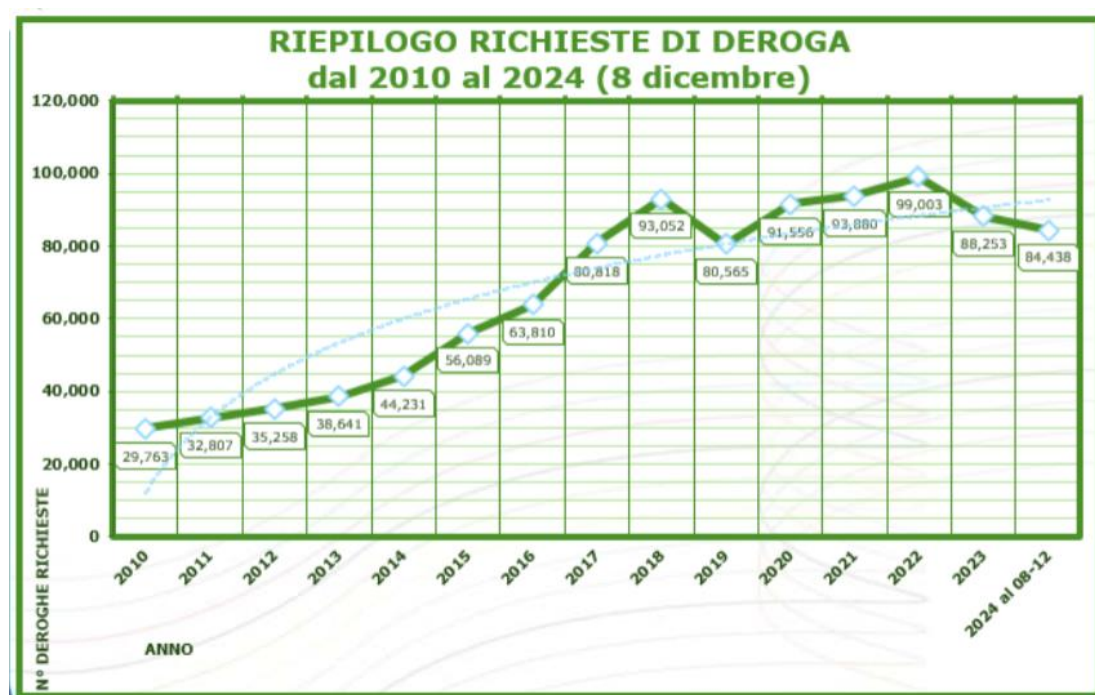


Figure 6: Trend of derogations in Italy from 2004. Source: CREA-DC.

c. Success factors and innovations

In general, an **increase of the surface dedicated to the production of organic seeds** is observed. In 2024, 31,567 hectares were dedicated to organic seeds, with an increase of around 20% (see Figure 7). It means that more organic seeds are produced in Italy, although it is impossible to know if the seeds are produced for export or for Italian

⁴ Organic seeds, CREA [consulted the 22/07/2025]. [Organic Seeds - Organic Seeds - Plant Protection and Certification - CREA](#)

organic farmers. In 2024 the surface dedicated to organic seeds was 13,6% of the total surface dedicated to seed production, a good result considering that 10 years ago, this figure was around 4%.

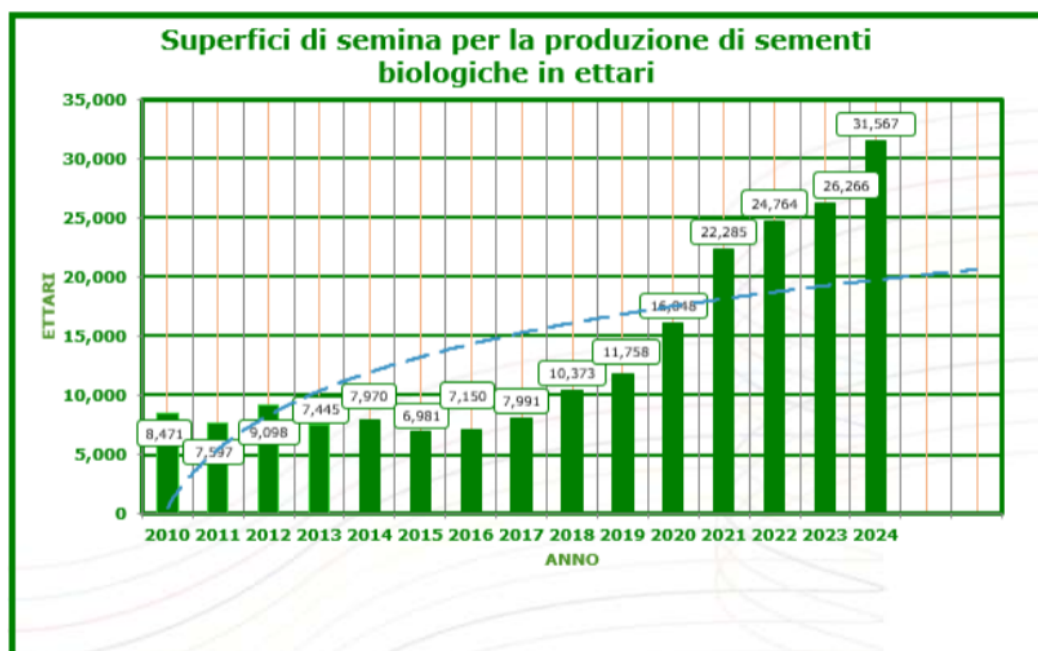


Figure 7: Graph on the evolution of the Italian sowing areas for organic seed production in hectares since 2010. Source: CREA-DC.

The National Plan's emphasis on **participatory plant breeding** is one of its most promising features. This approach recognises the value of farmers' experiential knowledge and the need to include them in research programmes. By involving farmers directly in the selection and breeding process, the plan will enhance the development of varieties that are not only resilient and diverse, but also better suited to the realities of organic farming. The **focus on organic heterogeneous material** also reveals the willingness to develop genetically diverse and resistant populations. The National Plan foresees also the creation of an **organic testing network** for agricultural species, a first relevant step for registering organic varieties.

Another strength lies in the **long-term goal of progressively reducing derogations**, by improving both the quantity and quality of available organic seeds and identifying a list of "equivalent varieties" that could replace conventional ones without harming organic production. This reflects a strategic approach to phasing out derogations by expanding the portfolio of suitable varieties for organic farming.

Moreover, the inclusion of specific protocols for testing varieties suitable for organic systems—considering not only yield but also resistance to stress, adaptability to soil and climate, and nutritional value—marks a **shift towards a truly systemic vision of seed quality**.

In parallel, the plan's focus on **supporting organic seed value chains** addresses a critical bottleneck in the organic sector: the high cost and limited availability of organic seeds. Organic plant breeding and seed production require specific expertise and longer timelines, which result in higher costs. By integrating support for the entire value chain, the plan provides an opportunity to create a more coherent and economically viable system.

d. Challenges encountered

While the collaborative approach during the design phase successfully led to a holistic plan, and the project foresaw the inclusion of various partners, its **implementation raises concerns**. Although the plan was adopted in 2023, implementation had not started by 2025, and stakeholder engagement has since declined. Some actors involved in the initial phase expressed difficulties in staying informed about the plan's progress. This reduced engagement has raised fears that the plan may follow the same path as the previous initiatives – becoming overly research-driven and disconnected from practical realities, with limited impact on the ground. In addition, some stakeholders have emphasised the importance of involving not only include farmers in the participatory breeding activities but also social organisations, given their experience in monitoring and coordination such initiatives.

Another significant challenge is the upcoming retirement of the current coordinator, Pier Giacomo Bianchi, in October 2025, which could affect the plan's implementation. Indeed, its expertise and network are essential in the smooth running of the plan, and concerns have been raised whether adequate handover and training will be ensured.

Finally, the **traceability system for Organic Heterogeneous Material (OHM)** raises concern. Although an [OHM track](#) was developed under the LiveSeeding project, a digital tool develop to help breeders, seed producers and authorities in ensuring traceability and notification of the OHM, the Ministry of Agriculture is considering building a separate national system, raising risks of duplication and incompatibility. The challenge will be to make the OHM track used by operators interoperable with the OHM database managed by the Ministry of Agriculture.

e. Outcomes and impact

Although the plan has not started yet, the expected outcomes are:

- *A better overview of the organic seed sector in Italy;*
- **Strengthened participatory breeding networks** between farmers, technicians, and researchers, aiming at developing varieties specifically adapted to Italian organic farming conditions;
- *Increased availability and dissemination of organic seeds, notably OHM;*
- *Development of official guidelines for seed quality protocols adapted to organic farming;*
- *The creation of a **network for testing organic varieties** in organic conditions;*
- **Enhanced traceability tools for OHM** (building on tools like OHM track), which may be used to support national certification and registration systems.

5. Key takeaways and lessons learned

The results from the interviews about the national roadmap project show several common success factors and (policy) measures supporting the increase in the production and use of organic seed.

5.1 Multi-actor approach

A national roadmap project should actively and early on involve stakeholders, including competent authorities, farmers' organisations, seed companies, breeders, researchers, and other experts. Organic farmers should be involved from the outset so they can take ownership of the project, as they may be the most critical stakeholders in the process. Including processors and retailers is also highly beneficial as they significantly influence the cultivars that farmers choose to use, a role that is often overlooked. These strategic dialogues **build capacity, reduce the time needed to gather key data and insights**, such as issues with organic seed supply, production challenges, and potential strategies for scaling up production. Strong national networking is important to bring different actors together, allowing for a better understanding of potential future supply. Recruiting new organic vegetable seed producers remains challenging due to the risks involved in seed production and competition with high-value vegetable production, which offer quicker returns.

If a **seed expert group** was previously established, it should play a vital role in the project. Indeed, they provide existing resources that facilitate and intensify dialogue with the respective multi-actor groups, helping to promote the transition toward 100% organic seed.

A **common baseline and mutual understanding** of the importance of organic seed are necessary. Raising awareness among all stakeholders about the critical role organic seeds play in maintaining the integrity of the organic sector is crucial. The complexity of organic seed production, especially in the vegetable sector, is often underestimated. Production challenges, such as pests, diseases, and the need for robust plants that can withstand long growing seasons, require a deeper understanding from stakeholders.

Participation in a seed expert group is often voluntary, and stakeholders typically have limited resources. **Compensating external stakeholders** for their participation can enhance their motivation to share valuable insights and tacit knowledge.

Finally, appointing a **neutral project coordinator**, such as a research institute enables effective project implementation.

5.2 Baseline data collection and monitoring progress

The **following data has been collected and analysed by the projects**: the areas dedicated to organic seed and PRM multiplication, including the seed recognition rate per year; the organic cultivation area for each crop per year; derogation reports detailing the assortment of cultivars requested from conventional multiplication (with respect to both volume and area); the availability of organic seeds; and the classifications (Category 1, 2, or 3) of crop species.

Key questions include: Who are the main suppliers and breeders of organic seed in the country? Where is organic seed being multiplied—within the country, elsewhere in the EU, or outside the EU? Does the selection of available cultivars meet the diverse needs of organic farming conditions within the country?

Additionally, it is important to **identify crop-related bottlenecks** that hinder the scaling up of organic seed production. These could include issues related to breeding, seed health, seed treatment, financing, and other factors.

5.3 Institutional embeddedness

There are several options how a national project could be embedded. Various strategic avenues may be considered for the successful embedding of a national project.

- *Integration into a National Organic Action Plan*

This comprehensive plan could serve as a guiding framework to further promote organic farming practices at the national level. It would encompass a variety of policies, educational initiatives, and support mechanisms designed to enhance the growth and sustainability of the organic sector.

- *Integrated in the ongoing work of national seed expert groups*

Collaborating closely with existing national seed expert groups could prove beneficial. This partnership would facilitate the sharing of expertise and resources, creating a synergy that fosters the development and promotion of seed varieties that align with organic agricultural standards.

- *Alignment with ongoing research projects*

Tying the national project to current research initiatives could enhance its success. Engaging with academic institutions and research organisations would provide an opportunity to share knowledge and resources, promoting innovative practices that support organic agriculture.

- *Exploration of funding sources*

Identifying diverse funding avenues will be essential for the sustainability of the project. Potential sources may include:

- *National Funds: Allocations from government budgets aimed specifically at agricultural development and sustainability initiatives could provide significant support.*
- *European Funds: Various EU programmes focused on agricultural innovation and environmental sustainability may offer valuable financial backing.*
- *Common Agricultural Policy (CAP) Funding: The CAP can provide essential financial assistance to farmers and promotes rural development, which could align well with our objectives in organic farming.*
- *Rural Development Programmes: Opportunities within local and regional programmes dedicated to enhancing rural economies could also be explored to support initiatives that promote sustainable agricultural practices.*

6. Key policy recommendations

Achieving the ambitious goal of phasing out the derogations for all major crops by the end of 2036 will require **coordinated national efforts**. Each EU country has its own agricultural conditions, cultural context, and infrastructure. Therefore, it is crucial to gain a national understanding of the bottlenecks and opportunities in the supply and demand of organic seeds and planting materials.

National projects, as illustrated in this document, should adopt a **multi-stakeholder approach** and include representatives from the diverse range of stakeholders within the sector. It is worth noting that smaller participants often feel underrepresented in these expert groups and committees, yet their insights can be invaluable to the process. It should ensure that the tacit knowledge of all stakeholders informs the right decisions and measures. Establishing national expert groups focused on organic seeds and planting materials is therefore a key first step toward increasing the availability of organic options.

To achieve the goal of 100% organic seed production, **roadmaps** must thoughtfully integrate actions within public policy, regulatory frameworks, and financial strategies from a **holistic perspective**. Instead of focusing solely on assessing seed supply, it is essential to consider how these elements interconnect for successful species integration. A comprehensive analysis of supply and demand, classified at the national level, will be instrumental in identifying the necessary steps to effectively strengthen the sector.

Targeted support for local organic seed production can be enhanced through specific initiatives that foster growth and development. Encouraging the establishment of a national organic seed industry can be accomplished by promoting entrepreneurship and supporting small and medium enterprises (SMEs), which play a vital role in the sector's evolution. Additionally, public sector-led awareness campaigns could greatly benefit both consumers and producers. Educating consumers about the importance of organic seeds and providing resources for producers can help cultivate a more robust organic seed market. This collaborative approach can pave the way for a sustainable future in organic farming.

The ongoing availability of derogations, particularly general derogations, discourages seed companies from prioritizing organic seed production. While derogations are necessary to address short-term supply shortages, they ultimately postpone the transition to 100% organic seed. Therefore, it is crucial to support policy decisions

with expert insights and to **foster confidence in market development** by clearly communicating which crops will be phased out by 2036. Creating regular exchanges between representatives of EU member state authorities who handle derogations daily, along with seed experts and control bodies from neighbouring countries, will foster a more harmonised approach and improve understanding of regional differences.

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Annexes

Annex 1: List of crop species in Category 1 (no derogations) for Denmark, France, Germany, Latvia, Italy and Sweden (July 2024)⁵

DENMARK

- *Bean: Field Bean*
- *Buckwheat*
- *Calendula arvensis*
- *Chrysanthemum sp.: Moon Daisy, Ox Eye Daisy*
- *Common Spruce: Whitewood, Norway Spruce*
- *Cucumber*
- *Fir: Blue Noble Fir, Nordman Fir*
- *Papaver sp.: Common Poppy*
- *Serradella: Ornithopus sativus*
- *Phacelia*
- *Potato*
- *Radish: Winter Radish, Tillage Radish*
- *Sanguisorba sp.: Sanguisorba minor, Great Burnet*
- *Flax (Linseed)*
- *Fodder Kale*
- *Garlic*
- *Hill mustard: Warty cabbage*
- *Lactuca sp. (lettuce): Cos Lettuce*
- *Lolium sp.: Italian Ryegrass*
- *Luffa sp.: Dishcloth gourd, Luffa Sponge, Smooth Loofah, Sponge gourd*
- *Lupinus sp. (lupin): White Lupin, Yellow Lupin, Blue Bean, Perennial lupin*
- *Mixtures: Catch crop mixtures, Green manure mixtures*
- *Mung Bean (Golden Gram)*
- *Soybean (Soya)*
- *Spreading Bentgrass (Creeping Bent)*
- *Sunflower*
- *Timothy*
- *Trifolium sp: Squarrose Clover, White Clover, Crimson Clover,*

⁵ [Category1_July2024.pdf](#)

- *Egyptian Clover*
- *Turnip*
- *Triticale: Winter Triticale*
- *Vicia sp. (vetch): Common Vetch, Winter Tares, Winter Vetch*
- *(Hairy Vetch, Fodder Vetch)*
- *Viola arvensis*

FRANCE

- *Alfalfa*
- *Aubergine*
- *Barley*
- *Bean: Soybean*
- *Beetroot*
- *Cabbage: White cabbage, Savoy cabbage*
- *Carrot*
- *Chicory*
- *Courgette*
- *Cucumber*
- *Fennel*
- *Field bean*
- *Field pea*
- *Fodder radish*
- *Gherkin, smooth or thorny*
- *Kohlrabi*
- *Lactuca sp. (Lettuce)*
- *Leek: Hybrid Leeks, Leek op (= non-hybrid)*
- *Lolium sp. (ryegrass)*
- *Lucerne*
- *Maize*
- *Mustard: White Mustard*
- *Oat*
- *Onion*
- *Orchard grass*
- *Parsley*
- *Phacelia*
- *Potato*
- *Pumpkin*
- *Rye*
- *Spelt*
- *Sunflower*
- *Sweet pepper*

- *Tomato*
- *Trifolium sp. (clover)*
- *Triticale*
- *Wheat*

GERMANY

- *Bean: Climbing French Bean (Stick Bean, Pole Bean)*
- *Buckwheat*
- *Rye: Winter Rye*
- *Sugar beet*
- *Cress: Land Cress*
- *Cucumber*
- *Endive*
- *Field Bean*
- *Lupinus sp. (lupin): Blue Lupin*
- *Lolium sp.: Italian Ryegrass, Perennial Ryegrass,*
- *Westerwolds Ryegrass*
- *Maize: Maize, Corn*
- *Mustard: White Mustard*
- *Onion, Onion (seed)*
- *Potato**
- *Pumpkin: Hokkaido*
- *Sweet pepper*
- *Trifolium sp.: Egyptian Clover (Berseem) Persian Clover,*
- *Reversed Clover, Strawberry Clover, Crimson Clover*
- *Triticale: Winter Triticale*
- *Vicia sp. (Vetch): Common Vetch, Winter Tares, Winter Vetch*
- *(Hairy Vetch, Fodder Vetch), Vicia pannonica*
- *Wheat: Winter Wheat*

*Exceptions are possible in the period from 1/10/20xx to 31/01/20xx

Latvia

- *No category 1 crops listed*

Sweden

- *Watercress, Land Cress*
- *Tulipa sp.*
- *Winter Wheat*

Italy

- *Alfalfa*
- *Troflum alexandrinum*
- *Durum*
- *Soft wheat*
- *Barley*
- *Common oat*
- *Bizantine oat*
- *Emmer*
- *Monococcum.*

Annex 2: Questionnaire

Introducing the project:

- *What is the objective of the project?*
- *What is the funding structure for the project, and what sources of funding are being utilised?*
- *Who are the key stakeholders involved in this project, and what roles do they play?*
- *What is the duration of the project?*

Seed expert groups:

- *Can you describe the PRM expert groups that are in place in your country and how they are involved in the project?*
- *How often do the PRM expert groups meet? Which crops do they focus on? What is their mandate and how are decisions made within the expert groups?*

Vegetative propagation material:

- *What is the current status of vegetative planting material? Does the project also address challenges related to the supply of vegetative planting material?*

Lessons-learned:

- *What are key success factors/lessons learned that other countries should focus on when starting similar projects aiming for 100% organic PRM use?*
- *Are there any specific success stories or case studies from your project that highlight its impact so far?*
- *What challenges should be anticipated, and how can they be addressed early in the process?*
- *What role does stakeholder involvement play in achieving organic PRM goals, and how can countries encourage broad participation?*

Policy recommendations:

- *Which policies or support mechanisms (e.g., financial) are necessary? Which are in place in your country?*
- *What key recommendations would you offer to policymakers in other countries looking to implement similar national projects?*