Annual Review 2025

NordGen

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INTRODUCTION

Lene Krøl Andersen, NordGen's Executive Director, sums up the year of 2025. **See the video here.**

As a research institution under the Nordic Council of Ministers, NordGen has an important social responsibility as we are working for the sustainable use and conservation of genetic resources that are important for Nordic agriculture and forestry. Climate change is currently happening faster than nature's ability to adapt, that is why our mission is more important than ever.

We have several important tasks ahead of us to ensure future biological climate-smart solutions, resilience in our ecosystems and to increase the competitiveness in the Nordic countries. NordGen plays an important role in this complex work at a time when society faces major challenges: to mitigate the effects of climate change, reduce the loss of biodiversity, the need for a more plant-based diet. There is also a desire for an increased food self-sufficiency in the Nordic countries, something that is becoming increasingly obvious due to the current geopolitical situation.

We have several important tasks ahead of us to ensure future biological climate-smart solutions, resilience in our ecosystems and to increase the competitiveness in the Nordic countries.

Useful and vital resources

Tasks and needs like these don't go away in a few years. Society has a strong need for long-term, stable solutions that will continue to provide us with food, feed, fiber, energy, medicine, and much more. Therefore, the conservation and sustainable use of genetic resources is a lifelong task that requires knowledge and insight.

The year 2025 was a busy year with strengthened and new collaborations with universities, private companies and

international organizations. It was the year when NordGen became the focal point for conferences, research projects, networks, workshops and other meeting places for knowledge exchange. Many new contacts, consortia and, not least, projects were created during the year. These collaborations will generate new research that will contribute to a sustainable development in the Nordic Region.

In 2025, NordGen finished the last year of the current strategic period 2023-2025. In the strategy, NordGen continues with its conservation activities, and at the same time prioritizes research based work focusing on documentation, characterization and evaluation of the genetic resources.

Part of the oat field that was cultivated in the collaborative project Avenue, the image was captured in July, 2025.

Key areas in focus

During the year 2025, particular focus has been placed on the following key areas:

1. Research and other activities in collaboration with industry and universities.
2. Development of a new strategy for coming years and the implementation of priority areas in the Kalmar II declaration, such as:

- Increased focus on the use of the Nordic seed and potato collection.
- Climate and resilience as overarching themes.
- Improved data, documentation, and accessibility.
- Stronger synergy between the sections Plants, Farm Animals and Forestry.

All these areas have a major impact on the work at NordGen. At the same time, it has been a year in which great results have again been achieved for NordGen's entire operations. It was also an active year on the international stage, where NordGen received prestigious recognition from the FAO, and made a strong impression in Lima, Peru, at the Eleventh Session of the Governing Body (GB11) of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA).

In the following pages you can read more about our activities and achievements in 2025.

Lene Krøl Andersen participated in the opening of the educational exhibition *The Infinite Loop* at GB11 in Lima, Peru.

The top photo show a Faroese horse foal, photo by Torsten Hansen.

ABOUT NORDGEN

Nordic Genetic Resource Center (NordGen) is the Nordic Knowledge Center for plant, animal and forest genetic resources as well as the Nordic genebank for seeds and plants. The institution was established in 2008 as a merger between the Nordic Genebank (established 1979), Nordic Genebank for Farm Animals (established 1983) and the Nordic Council for Forest Reproductive Material (NSFP) (established 1970).

As a knowledge center, research institution and genebank, NordGen's mission is to safeguard the Nordic genetic resources and facilitate the sustainable use for agriculture, horticulture and forestry, for current and future generations. The mission also includes providing knowledge and genetic material to facilitate sustainable food and feed production and other biobased solutions in the Nordic region's changing climate.

NordGen also promotes collaboration between farm animals, plants, forest and the environmental area as well as disseminates knowledge and raises awareness about genetic resources. NordGen also fosters management and competences within the three disciplines. NordGen provides technical advice and information to decision makers in the Nordic countries in national and Nordic collaborations and international negotiations on the conservation and sustainable use of genetic resources.

NordGen has a special responsibility for conserving and documenting genetic variation of Nordic material to ensure biodiversity and sustainable use of genetic resources. As early as 1979, the Nordic countries decided that a joint Nordic genebank for plants should conserve and facilitate the utilization of national plant genetic resources.

Downy birch (*Betula pubescens*) photographed in Þórsmörk nature reserve, Iceland, 2025.

Planting of the Danish turnip *Kava* in NordGen's garden, 2025.

In the 2004 Kalmar Declaration, the Nordic countries have adopted the basis for how NordGen should manage access and rights to genetic resources. All accessions in the genebank, except for collections held by NordGen for other genebanks, are under joint Nordic management and are a common good. In 2023, the Kalmar declaration was updated in accordance with technical advancements and new fields of genetic resources that was not mentioned in the earlier version.

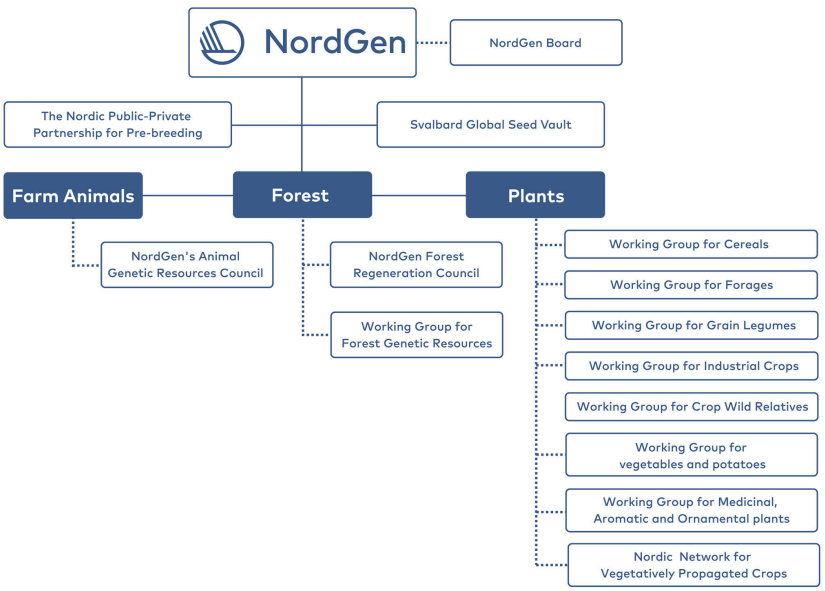
The genebank's seed collection should contribute to more resilience and new solutions to avoid biodiversity loss and contribute to increased use of genetic resources to achieve sustainable climate solutions, robust food and feed supply including new protein sources, better health and sustainable ecosystem services. At the same time, efforts will be made to improve documentation by characterizing and evaluating the seed collection, so that more data becomes available to the Nordic community.

NordGen manages the program Nordic Public Private Partnership for Pre-breeding (PPP), which aims to support the development of Nordic plant pre-breeding.

NordGen has the operational responsibility for the Svalbard Global Seed Vault in a partnership with the Ministry of Agriculture and Food in Norway and the Global Crop Diversity Trust.

The dill *Goda* with Swedish origin, one of +34,000 seed samples in the Nordic seed collection.

Figure 1: Organogram – NordGen.



Top photo: Participants from *Agroecology Europe Forum 2025* visited NordGen in October.

KNOWLEDGE CENTER

As the Nordic knowledge center for genetic resources, NordGen participates in and leads research projects, arranges outreach activities and shares information with relevant stakeholders concerning conservation and sustainable use of genetic resources important for food and agriculture. NordGen is also participating in several Nordic, European and International networks and commissions.

Our most important tools for exchanging knowledge within the Nordic countries are our working groups and councils. The different working groups of NordGen Plants, the working group and the council of NordGen Forest and the council of NordGen Farm Animals are vital advisory groups consisting of experts within each field from all the Nordic countries. The Board of NordGen also provides valuable input and knowledge exchange. Information is disseminated through our website nordgen.org, social media, project reports, press releases, arranged events, network meetings and targeted e-mails.

Social media followers	2022	2023	2024	2025
Instagram	2470	3014	3428	3782
Facebook	3789	4300	4784	5191
LinkedIn	1994	2732	3602	5231

Table 1: Social media statistics, numbers from the month December. In 2025, LinkedIn surpassed Facebook in the number of followers.

Joint working group meeting

On 11 June, NordGen Plant's eight working groups met at the headquarters in Alnarp for a joint meeting. In total, around 50 experts working with the eight different plant categories* travelled from across all the Nordic countries to attend. The programme included presentations and discussions on NordGen's research strategy, recent developments within NordGen, the progress of the working groups' various research projects, and ideas for the future.

*The structure of NordGen Plant's working groups:

- Cereals
- Industrial crops
- Forages
- Grain legumes
- Crop wild relatives
- Vegetables & Potatoes
- Medicinal, aromatic and ornamental plants
- Nordic network for vegetatively propagated crops

Other visits and external events

In addition to the joint working group meeting, NordGen organised a Nordic forest conferences during 2025. Read more about this event in the chapter on NordGen Forest.

Several guided tours of the NordGen facilities were organised throughout the year.

During 2025, interest in visiting NordGen remained high and the premises in Alnarp were visited by journalists, policy makers, students, companies and other genebanks. Guests included government officials from the Nordic and Baltic countries, representatives from the European Commission, Centre for Genetic Resources, the Netherlands (CGN), Austrian Agency for Health and Food Safety, AGES and the Hungarian genebank National Center for Biodiversity and Gene Conservation.

In October, NordGen and The Nordic Joint Committee for Agricultural and Food Research (NKJ) organized a field visit/workshop to NordGen's head office and greenhouse forparticipants in the Agroecology Europe Forum 2025. For example, the visitors got to listen to some of the researchers participating in the Nordic research collaboration facilitated by NKJ as well as an introduction to NordGen's operations

In the following pages, our different sections and their activities during 2025 will be introduced.

Knowledge centre – NordGen Plants

We live in a time when climate change is affecting our ability to grow our own food. Drought, floods and higher mean temperatures means that developing new plant varieties that can withstand the new challenges are more important than ever. But no plant breeding is possible without the green infrastructure stored in the DNA of seeds. And not even advanced gene technology can replace the natural genetic diversity that we find in our wild, semi-wild and cultivated crops. The most important task of NordGen Plants is to safeguard and facilitate the sustainable use of plant genetic resources that are important for agriculture in the Nordic countries. By doing so, we create conditions for a more environmentally friendly agriculture that can better withstand diseases, climate change and at the same time produce more nutritious food that corresponds to the consumers' demands.

Flowering buckwheat in NordGen's garden 2025.

Key activities

The research conducted at NordGen Plants is mostly carried out within different projects. Read more about this under the section "Projects".

Nordic and international collaboration

NordGen is part of and arranges several different meetings and seminars for Nordic stakeholders concerning plant genetic resources. 2025 was again a year filled with many interesting meetings in Alnarp and in other locations in the Nordic region. During the year, NordGen continued to experience increased demand for knowledge exchange on the utilisation of plant genetic resources in the Nordic seed and potato collection, from both public and private research programmes.

One such current example is the pan-Nordic collaborative project on crop wild relatives that includes a network of participants from all Nordic countries. During 2025, the fourth project period was initiated. Two other projects in 2025 focused on underutilised crops. In the FUnCrop project, NordGen collaborates with partners in the Baltic countries and Ukraine on crops like buckwheat, vetches, lentils and mustard. The project PROSPER consists of a consortium of 27 European institutions that will work on the project during 2025-2029. NordGen will focus on chickpeas,

lusern and lupin. Another project launched in 2025 is called AVENUE and focuses on oats with traits suitable for organic production. Read about all projects here.

Global community

Preserving and distributing genetic resources requires international collaboration, and the foundation for this work is laid out in the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and the Convention on Biological Diversity (CBD), ratified by all the Nordic governments.
To NordGen, as part of the global genebank community, international collaboration is crucial. Forums for this work is the Governing Body (GB) to the ITPGRFA and the Commission on Genetic Resources for Food and Agriculture (CGRFA), The European Cooperative Programme for Plant Genetic Resources (ECPGR) and the Conference of the Parties (COP) to the CBD.

In November 2025, NordGen was present at the eleventh session of the Goerning Body (GB11) that took place in Lima, Peru – the first of the sessions ever in Latin America and also the first meeting to be co-hosted by two countries: Switzerland and Peru. As the Nordic countries' joint genebank and knowledge center for genetic resources, NordGen is an observer at the Governing Body of the International Treaty.

Photos from GB11 : The exhibition the Infinite Loop, plenary discussions and the side event "From the Peruvian Andes to Svalbard Global Seed Vault – An arctic backup facility preserving the PGR's of the world.

In addition to attending the meeting, NordGen organized a well-attended side event on the Svalbard Global Seed Vault, together with the Crop Trust, the Norwegian Ministry of Food and Agriculture, and the International Plant Treaty. NordGen also

participated in the opening of the educational exhibition "The Infinite Loop" which was shown during GB11—a unique co-production of the International Treaty, the International Potato Center (CIP), the CGIAR Genebanks, the Crop Trust, and NordGen.

In October, the first *Global Technical Recognition Ceremony* ever was held at FAO's headquarters in Rome to recognize the best practices and innovative approaches across six technical categories. NordGen Plants received the recognition in the category *Sustainable plant production and protection.*

NordGen Plants is the largest department. It is divided in two, with the genebank maintaining the Nordic seed collection of about 34,000 seed samples and the research department working in a close relationship with public institutions, plant breeding companies and other organizations in order to identify green solutions for a more sustainable society.

A central part of NordGen Plants is the seven different Working Groups on plant genetic resources that together with the national programs constitute the very core of NordGen's network of Nordic experts. They are an important link between the Nordic and the national technical work within a specific species group. The working groups contribute with insights to each Nordic country's operations with genetic resources and is also important for knowledge exchange and network contacts.

Part of NordGen's cultivations, July 2025

Knowledge centre – NordGen Farm Animals

The genetic diversity that our Nordic native farm animal breeds carry is invaluable. Over hundreds of years, they have developed desirable traits that make them robust and well adapted to the Nordic climate and way of life. Native breeds have a wider genetic base than commercial breeds and great potential for future food production in a sustainable way. For example, research shows that milk from Nordic native cattle breeds is among the best in the world when it comes to cheesemaking and contain valuable nutrients that could be used to develop bioactive food components. If further investigated, the variation found in the local breeds can help adapt Nordic agriculture to the needs of the market, climate change and new production systems. However, many of the ~160 Nordic farm animal breeds are at risk of extinction today. NordGen Farm Animals is working to reverse that trend.

Norwegian Telemarksfe, one the many Nordic farm animal breeds.

Key activities

In 2025, much of our work focused on laying groundwork for future activities, across research, collaboration, and strategic development. Several project proposals were prepared to broaden the portfolio, including initiatives such as NordWool, Nola sheep, and Ålandsheep. These were followed by the first steps in implementation, in line with research plans.

Värmlandsfår, one of several native sheep breeds from Sweden.

Building foundations for major projects and concepts

Collaboration was strengthened across Nordic and international networks. In particular, our active involvement in The European Regional Focal Point for Animal Genetic Resources ERFP, through ad hoc work on landscape management and the Northern European Native horse network strengthened NordGen's role as a key coordinator of animal genetic resources in the region.

A growing part of the work focused on using data to support conservation and decision-making, particularly through FAO's DAD-IS database. This also included initial steps towards a Nordic reporting framework to improve monitoring and make information on animal genetic resources transparent for the public.

Focus on wool, Nordic native sheep, and communication

Main focus of the year was the development of activities related to Nordic wool and native sheep genetic resources. In NordWool, most work was about preparatory activities aimed at establishing a foundation for future implementation.

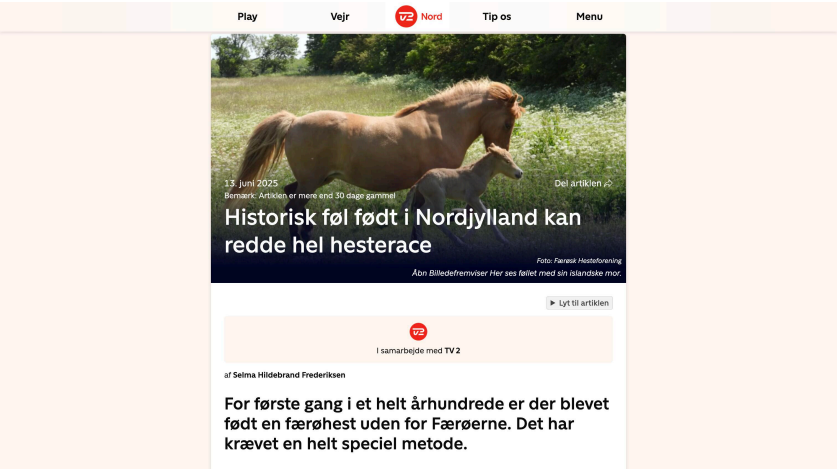
Another key objective was to increase the nordic native breeds' visibility and appreciation among the public. Communication and stakeholder engagement were further strengthened through:

- The publication of breed stories on NordGens's website.
- Articles in Finland on NordWool and Ålandsheep aimed at the general public.
- Active participation in workshops, meetings, and stakeholder forums.

Two breed stories from 2025: The Åland sheep and the Swedish Ardennes. Photos by Kaie Ahlskog and Avelsföreningen Svenska Ardennerhästen.

Faroese horse attracted attention in Denmark

Another example of successful communication regarding Nordic farm animal breeds took place in in June, as a press release from NordGen was well received and widely shared on social media and by various Danish and Faroese news outlets. The press release concerned a unique foal birth in Denmark as for the first time in over a century, a Faroese horse was born outside the Faroe Islands. This event marked a huge step forward in the ongoing efforts to safeguard the small and critically endangered breed. The news coverage included several news articles and TV reports on the Danish broadcaster TV2's various platforms.



One of the news features from Danish TV2.

Project activities

A mentioned in this chapter, a significant part of the work conducted during 2025 in the farm animal section was carried out in various projects. Read more about theses activites i the chapter Projects.

NordGen Farm Animals is a service and knowledge centre working to conserve and promote sustainable management of the animal genetic resources in the Nordic region. Contributing to the Nordic countries' own work by promoting the genetic, economic, cultural, historical and social values that come with a wide variety of different animals in Nordic agriculture.

NordGen Farm Animals' activities are providing tools and advice to preserve the genetic variation in living populations (*in situ*) but also to establish cryo-storage of genetic material (*ex situ*). Through a variety of projects, NordGen Farm Animals are working to initiate research and development projects related to categorization, conservation, management and sustainable use of animal genetic resources.

NordGen Farm Animals also organizes workshops, seminars and courses for various Nordic stakeholders and promotes good collaboration between them. Actively distributes information about animal genetic resources and partake in international networks. Works to promote sustainable breeding practices and good principles for fair trade in animal genetic material.

Knowledge centre – NordGen Forest

Nordic forests provide wood and bioenergy, protection against wind and erosion, biodiversity and is a carbon dioxide sink. The trees planted today will grow for decades to come but climate change can hit our forests hard, and we must deal with the emergence of new pests and diseases that haven't existed in the Nordic region before. Within the forest industry there is a need for strong, resilient forests in the future and an important key to this resilience is genetic diversity. Since different trees carry different genes, chances are that some of them can resist the new threats. For example, the ash dieback disease is today threatening the Nordic ashes. But by identifying particular trees that carry resistance genes, the species could be saved. NordGen Forest is working to exchange knowledge about these kind of issues in the Nordic forest community.

Scenery from the Icelandic Þórsmörk nature reserve during an excurision at the *NordGen Forest Conference 2025*.

Key activities

For NordGen Forest, the year 2024 was again a year filled with fruitful meetings on site in several Nordic countries. For example, a successful forest conference was arranged in Hella, Iceland.

Thematic days and forest conference

The first NordGen Forest event in 2025 was a thematic day organized on 13 January in Denmark on the theme *250.000 hectares of new forest in Denmark: Vision, implementation and genetics.* The speakers included Erik Dahl Kjær, Professor, at the University of Copenhagen (Department of Geosciences and Natural Resource Management) and Mogens Krog, Specialist Consultant at the Ministry for Green Transition (Styrelsen for Grøn Arealomlægning og Vandmiljø). 74 persons attended the event online.

The annual NordGen Forest conference was arranged on 17-18 September 2025 in Hella, Iceland. About 70 persons participated in the conference that was entitled *NordGen Forest Conference 2025 – Birch at the heart of reforestation*. During the first day, 15 speakers gave presentations covering several interesting topics on aspects of forestry and forest genetic resources within birch. The conference venue also hosted a poster exhibition where young researchers had the opportunity to present their findings. On the second day, the participant had a full day of excursions. At Nauthúsagil, the group was able to admire a rowan tree that is at least 150 years old and the ancestor of Iceland's planted rowans.

The trip then continued via dramatic river crossings to the beautiful surroundings of the Þórsmörk nature reserve, where the group observed the natural regeneration and expansion of birch forests.

The photos from the conference show the excursion to Nauthúsagil, NordGen's Executive Director, Lene Krøl Andersen and the excursion in Þórsmörk nature reserve.

The second thematic day of the year was arranged in Hudiksvall, Sweden, on 26 and 27 August. The event that was entitled Towards the future production of forest seedlings, included nine presentations and en excursion to Holmen Skog's forest nursery. Around 40 persons attended the thematic day that was followed by a meeting arranged by SLU Skogsplantforum.

The recent report, *Statistics: Forerst Seeds and Plants in the Nordic Region – Version 2025.*

Updated statistics report

In 2025, the third edition of the biennial statistics report on forest seed and plant material in the Nordic countries was published. The first edition was released in 2021 and the second in 2023. The 2025 edition has been expanded to include more statistics and more species than the previous reports, as well as including more recent data from the years 2022 and 2023. The report compiles statistics and reports contributed by representatives of each country in the NordGen Forest Regeneration Council.

Scholarships

A total of 24 applications (13 from Sweden, 6 from Finland, 1 from Denmark, 2 from Norway and 2 from countries outside the Nordic region) were received by the deadline on 15 February 2025. 12 of them were granted (10 from Sweden and 2 from Finland). The scholarship holders shared a total of NOK 100,000, which was used to cover travel and fieldwork expenses, thereby supporting activities in several Nordic countries.

NordGen Forest addresses conservation and sustainable use of forest genetic resources, by being a forum for researchers, practitioners and managers working on forest genetic resources, seeds, planting stock and regeneration. We facilitate flow of scientific information and knowhow between these groups.

NordGen Forest consists of two bodies: The NordGen Forest Regeneration Council, which meets twice a year and organize our conferences and thematic days, and the NordGen Forest Working Group on Genetic Resources, which meets once a year. In cooperation with Nordic Forest Research (SNS), NordGen Forest also grants scholarships to enhance knowledge and competences in the area of seed, plants and forest regeneration.

NordGen Forest is focusing on knowledge exchange about conservation and sustainable use of forest genetic resources, forest seed and plant production and regeneration of forests. By disseminating knowledge and experience between the various actors and to the public, we aim to support better plant production and better regeneration methods of forest, as well as conservation of forest genetic resources. We conduct various types of projects and information activities.

Forest excursion during the *NordGen Forest Conference 2025*.

GENEBANK

NordGen's genebank is a joint plant genebank for all the Nordic countries. It conserves and documents seeds and living plant samples of Nordic heritage and of importance for the Nordic countries. The genebank ensures that the genetic resources that underpin our food supply are both secure in the long-term for future generations and available in the short term for use by farmers, gardeners, plant breeders, and for research and development.

The seed and plant collections of NordGen are important to ensure that agricultural and horticultural plants do not become endangered or extinct over time. Because these plants may contain genes which enables them to resist diseases, have enhanced nutrition composition or survive in changing or harsh climate environments. The services of the genebank are a common public good. The plant genetic resources stored in our genebank are available for research, education, and breeding purposes.

> *The plant genetic resources stored in our genebank are available for research, education, and breeding purposes.*

The seed samples are conserved in bags made of laminated layers of plastic and aluminum.

Plant groups represented in the active collection	Number of seed samples
Cereals	22,446
Grain legumes	3,082
Vegetables	1,940
Forages	4,748
Oil, textile fibre and root crops	1,684
Medicinal plants and spices	587
Ornamentals	286
Potatoes	96

Table 2: Plant groups and number of seed samples (accessions) in the Nordic seed collection.

The genebank contains about 35.000 seed samples (accessions) in the active collection from 440 different plant species. These species carry a wide palette of different genetic traits that constitutes the green infrastructure for research and development of a sustainable agriculture and green growth.

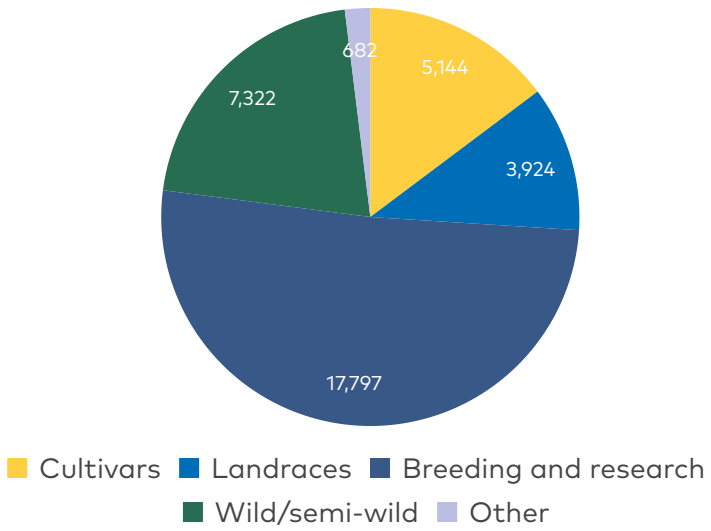


Figure 2: Plant groups represented in the Nordic seed collection.

Laboratories

NordGen has a well-equipped seed laboratory for quality assessment of seed samples and follows the FAO's international genebank standards. This includes, among others, species identification, seed drying, seed cleaning, estimation of thousand grain weight and seed viability. The molecular laboratory provides facilities to prepare and conduct DNA extractions, both PCR-based marker analyses as well as prepare samples for more complex downstream analyses. The *in vitro* laboratory provides sterile working conditions and incubators for tissue culture or germination in controlled light and temperature. A room for cryo-preservation is planned for in the new building and will enable safe long-term storage of different kind of samples.

Cultivation facilities

NordGen greenhouse and field team has experience with regeneration of a very broad variation of agricultural and wild plants. This includes valuable knowledge about specific requirements of sowing, transplanting, isolation, fertilization, watering, weeding, winter storage and seed harvest. The team can also assist in recording plant descriptors during the regeneration

Cultivation of flax in NordGen's greenhouse.

Genebank - Sustainable use of plant genetic resources

NordGen provides genetic material to facilitate sustainable food and feed production and other biobased solutions in the Nordic region's changing climate. The best way to preserve genetic diversity is to use it and the Nordic seed collection is no exception.

Therefore, NordGen sends out thousands of seed samples annually to scientists, plant breeders, companies, museums, botanical gardens and home gardeners with an interest in old cultural plants. Seeds are primarily requested by Nordic and European countries.

The seed samples are mainly ordered by universities and research/breeding institutes while others interested in the material are seed saver organizations, museums, schools and municipalities for education or demonstration use.

> *The best way to preserve genetic diversity is to use it and the Nordic seed collection is no exception.*

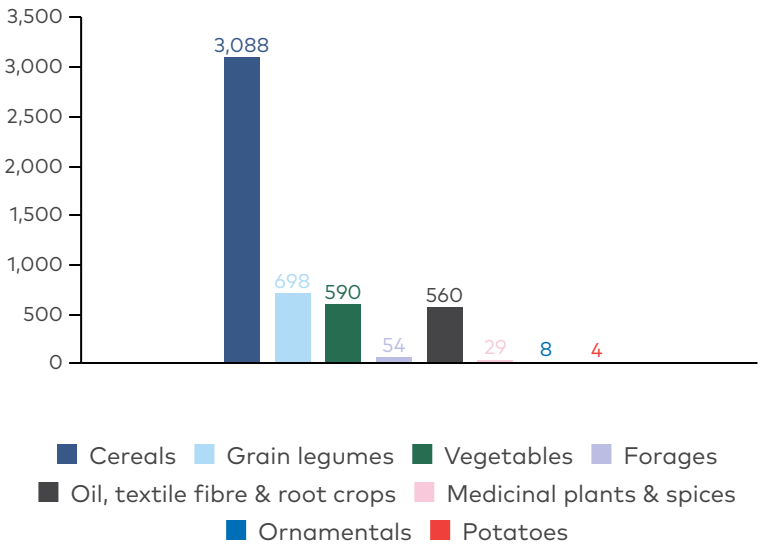


Figure 3: Crop of requested accessions in 2025 (number of bags).

Webshop

As one of the ways to promote the sustainable use of plant genetic resources to the general public, NordGen has established an webshop where we distribute our surplus of seeds for a small admin fee. During springtime, hobby growers and home gardeners with an interest in older varieties of vegetables, flowers and cereals can order seed samples and mini tubers of potatoes from NordGen. In 2025 the work with the website continued, for example, new products and seed samples were made available to the public. During the year, nearly 1,000 orders were shipped through the webshop.

NordGen regularly receives various proposals to add new material to the Nordic seed and potato collection. These suggestions are always carefully evaluated, and only those considered sufficiently relevant are accepted. As a result of activities in various projects, we have seen an increase in new seed samples in recent years.

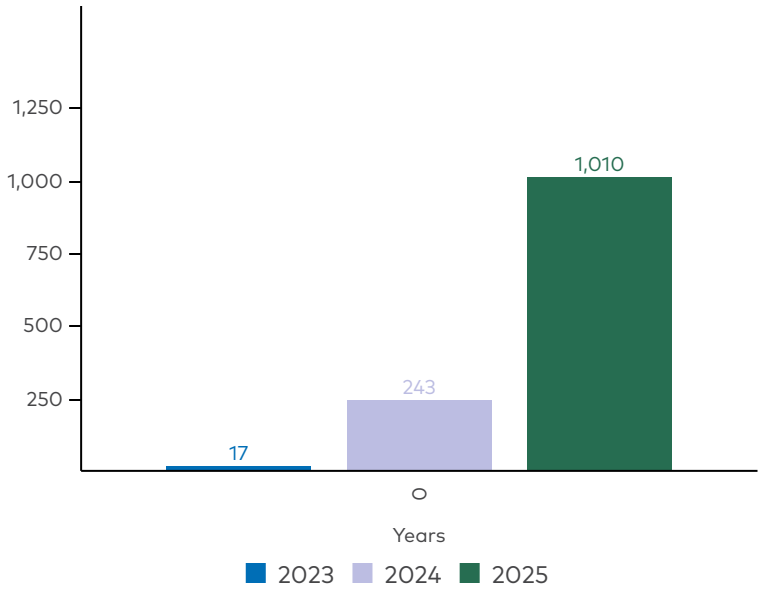
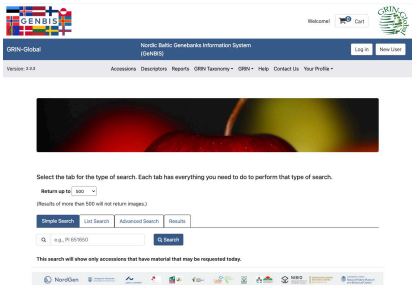


Figure 4: Incoming seed samples during the recent years.

In 2025, NordGen received around 100 seed samples as part of project SwedeSweed, for example this big bag of carline thistle (*Carlina vulgaris*).

Genebank - Digitalization



The very core of NordGen's genebank is the information system that contains all the data gathered over the years about the seeds and the plants in the Nordic seed and plant collection. This data is unique and invaluable for the research and development of new crop varieties needed to support future food production in the Nordic countries.

During the last few years, NordGen has been on an ambitious digitalization journey to that the genebank information system is future proof. In 2019, NordGen decided to implement the internationally well-known genebank data management software GRIN-Global.

The project reached a very important milestone in 2020 with the launch of the Nordic Baltic Genebanks Information System, GENBIS, which is built within the GRIN-Global data management system. This is a critical step bringing improved possibilities for strengthening documentation processes in the genebank, and will secure efficiency, security and accuracy in the seed handling and documentation as well as providing a more user-friendly interface for seed requesters.

GENBIS is not only serving NordGen but also enable users to explore data from eleven different genebanks, including the Nordic and Baltic national genebanks. This has in a positive way impacted collaboration between NordGen and the Nordic and Baltic national programs for plant genetic resources.

In 2025, NordGen continued the collaboration with partner countries and carried on with the work to optimise the data servers and improve the usability.

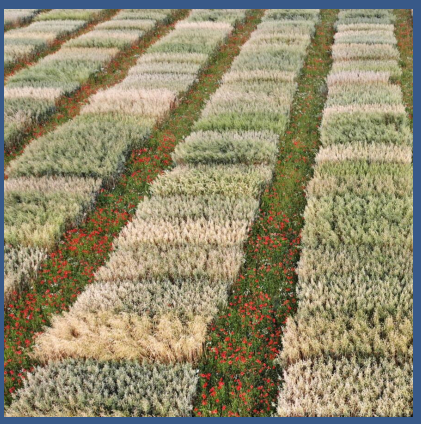
PROJECTS

To participate in and lead different projects is an important part of NordGen's operations. In close collaboration with public institutions, private companies and other organizations, the overall purpose of all projects is to conserve and promote the sustainable use of genetic resources for Nordic food and agriculture. The funding for the projects is granted by the European Union, the Nordic Council of Ministers, directly from the Nordic countries through its government bodies or from public and private foundations and other organizations. Below is a summary of some of our more high-profile projects that were active in 2025.

Top photo: The Danish native breed Klitfår.

Avenue

The collaborative project ***Breeding organic Avena sativa L. (Oat) with high nutritional value*** **(AVENUE)** aims to develop data and a prediciton model that can be used to develop quality oat varieties with high nutritional value that are suitable for organic farming. The project will address the need for oat varieties with high nutritional value specifically tailored to sustainable organic production.



Part of NordGen's field cultivation in the Avenue project, July 2025.

The project will advance our knowledge of genotype and environment interactions, by bridging disciplines of plant genetics, agronomy and statistics. The overall objective is to develop prediction models that integrate quality, diversity, environment and cultivation management. To achieve this, the project will evaluate 200 oat varieties and landraces (of which 180 are from NordGen) that have been collected from across the Nordic Region and grown for a century surviving changes in climate and agricultural practices. As part of the project, field trials will be

carried out in Scotland, Denmark and Sweden over a two-year period.

Among other things, the project will deliver the following:

- Quantitative phenotypic data.
- A prediction model to determine the nutritional value of oats.
- New breeding material tailored to different climate scenarios to future proof health-promoting and sustainable oat production.

The project Avenue will run during 2025-2027 with fundings from the **Novo Nordisk Foundation.**

Nordic crop wild relatives

Crop wild relatives (CWR) are wild plant species that are closely related to crops. They are of great importance since traits in these wild species can be transferred to crops by traditional plant breeding approaches. In many cases, wild species have traits that are not present in modern crops, for example pest and disease resistance, tolerance to drought, waterlogging or heat stress. Such traits are very important when adapting crops to future climate conditions and diseases and are therefore central for climate change adaptation and future food security.

Wild carrot and cultivated carrot in NordGens genebank collection.

The Nordic network on CWR was initiated in 2015 with the long-term aim to promote a well-functioning, climate- and environmentally friendly Nordic agriculture by strengthening CWR conservation and facilitating use of CWR. The fourth phase of the project was approved in 2025 and has the title *Wild plant diversity for resilient Nordic food systems - a nature-based solution*. The project will include project activites such as:

- Identification of climate change refugia.
- Species-specific Nordic CWR conservation strategies.
- Diversity analysis for conservation optimisation and use.
- Nordic CWR population management guidelines.
- Seed collection and conservation.
- Communication.

The fourth phase of Nordic CWR project will be active during 2026 to 2027 with funding from the Nordic Council of Ministers, as well as self-funding from the participating organisations. The project is coordinated by NordGen.

NordWool

Network for Nordic Landrace Sheep Wool **(NordWool)** is a collaborative network dedicated to characterizing, assessing, and promoting the sustainable use of Nordic native sheep breeds, with a focus on their potential unique wool properties. The project seeks to elevate the often-overlooked role of wool in sheep farming, balancing the current focus on meat production.

Wool from Swedish landrace sheep.

By uniting spinning mills experts, sheep breeders and farmers, and researchers, NordWool aims to enhance the recognition, quality, and market potential of Nordic native wool, while supporting biodiversity, conserving endangered breeds, and preserving cultural heritage.

The network will create a WoolWiki, a catalogue that provides insight into the wool quality of the different Nordic landrace sheep breeds. It will also create a WoolBank - a physical reference collection of Nordic wool samples with standardised quality descriptions, including DNA samples, photos and other phenotypic information. Finally, the network will brainstorm new innovative ways of using wool to reduce dependence on synthetic fibres and increase the visibility and market value of wool from endangered breeds.

The project will run from 2025 to 2027 and is funded by **The Nordic Joint Committee for Agricultural and Food Research (NKJ)**. During 2025, project activities included mapping key stakeholders and preparations for a physical workshop, which was planned as one of the major outputs of the project in 2026. In parallel, important preparatory steps were taken towards establishing a Nordic wool bank.

Next generation genebanking

The project *Next generation genebanking – Unlocking the potential of plant genetic resources in the sequencing era* was granted by Novo Nordisk Foundation and started in 2024. In this collaborative project, NordGen and Aarhus University will map the Nordic seed collection of protein crops. The project will lead to a substantial lift for the genebank collection since researchers and plant breeders will get access to brand new information about NordGen's seeds – information which is vital for developing future plant-based protein sources.


The Swedish bean *Sanda*, one of many beans in NordGen's collection.

The project focuses on 4500 protein crop accessions from the Nordic seed collection, such as peas, beans, lentils, and clover, that will be genotyped and phenotyped. Further, a number of so called core collection will be established. Core collections are a smaller number of seed samples that can represent a large part of the genetic diversity for each species. The project partners will create an entirely new genebank infrastructure enabling researchers to easier and faster find the genes that code for certain traits in the plant. These activities also involves sharing all the gathered information under open access.

The project is funded by Novo Nordisk Foundation and will run from 2024-2026.

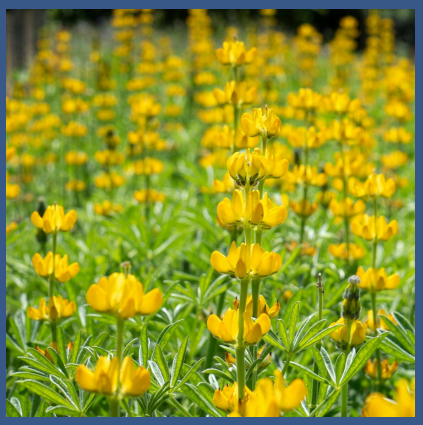
PROSPER

Promoting Resilient Orphan Legumes for Sustainable Agriculture and Food Security **(PROSPER)** will deliver sustainable technical solutions using resilient orphan legumes (OLs) to diversify agriculture and value chains across Mediterranean, Central, and Northern Europe.

Through a multi-actor, participatory approach, it will co-create technologies that enhance crop productivity in challenging environments, expand food and biocircular economy products, and provide on-demand spatial information services.

Building on partners' past expertise, PROSPER will develop novel resilient legume varieties, assess their environmental and nutritional performance, and promote technology transfer. The project aims to boost biodiversity, ecosystem services, and agricultural sustainability while fostering socioeconomic development and connecting EU and global biodiversity policies.

As part of the project, NordGen will conduct trial cultivation of black medick (*Medicago lupulina*), alfalfa (*Medicago sativa*), annual yellow-lupin (*Lupinus luteus*) and chickpea (*Cicer arietinum*). PROSPER is a Horizon Europe project funded by the European Union that will be active during 2025 to 2029.



Annual yellow-lupin (*Lupinus luteus*) in NordGen's garden.

FUnCrop

Another active project during 2025 on orphan, or so called underutilised, crops was FUnCrop – an abbreviation for

Strengthening food security by conservation and knowledge-building of underutilized crops.

Underutilized crops are considered important genetic resources that, in a global context, are often overlooked in research and development compared to major crops and have the potential to be grown on a wider scale. These crops contribute to resilience by offering alternatives in the face of climate change, thriving in diverse environments, and holding cultural significance. Recognizing and promoting underutilised crops is vital for building sustainable and resilient food systems.

The aim of the FUnCrop project is to create a Nordic/Baltic/Ukrainian operational network for underutilized crop conservation development to meet future challenges of food security and climate resilience. In addition, the project will engage in knowledge-sharing, workshops and field trials. In 2025, NordGen conducted cultivation of buckwheat, grey peas, lentils and mustard within the project.

The FUnCrops project is coordinated by NordGen and will be active from 2024 to 2026 thanks to fundings from the Swedish Institute.

The FUnCrop field trial in NordGens garden, July 2025.

Ålandsheep

The project with the title *Wool properties and genetic background of Ålandsheep – produced targeted data to support breed branding* is a research initiative focusing on characterising the wool properties and genetic background of the endangered Ålandsheep, a native Nordic breed.

The project aims to generate scientific knowledge needed to support sustainable use, conservation, and value creation for wool as a high-value, locally adapted fibre resource. Despite growing interest in sustainable and regionally distinctive wool products, the properties and genetic basis of wool in Nordic native breeds remain poorly documented.
The study combines phenotypic and genomic approaches.

Wool and blood samples, together with phenotypic information, will be collected from 30–50 Åland sheep with known pedigrees for genomic sequencing and trait recording. Wool samples will be analysed using standard laboratory methods to assess fibre quality traits such as fineness, length, strength, and other characteristics relevant to textile use. Blood samples will be

Ålandsheep captured by Mervi Honkatukia.

processed for genomic sequencing, and the resulting data will be used to evaluate genetic diversity, population structure, and relationships to other Nordic breeds. All samples and associated data will be deposited in the Nordic WoolBank.

The long-term goal is to integrate these datasets to improve understanding of the genetic basis of fibre traits. In parallel, historical and cultural sources related to breed and its wool, will be mapped to address the cultural heritage dimension and support the development of an evidence-based breed narrative.

The project is funded by August Johannes ja Aino Tiuran maatalouden tutkimussäätiö and will be active during 2025 to 2026.

SwedeSeed

The collaborative project SwedeSeed will develop a system for seed production from wild plants of local origin for use in nature conservation. This is because there is a lack of regional seeds and seedlings of wild plants in Sweden and at the same time a great need for an adapted material, for example to use in:

- Nature restoration.
- Agriculture.
- When constructing new facilities.
- The fight against alien invasive species.
- Ecological compensation.
- Within the framework of a green infrastructure.

One of the many seed samples from the project that were processed in NordGen's seed lab was the herb sheep's-bit (*Jasione montana*).

One result of the project will be to compile methods and guidelines for seed collection and handling and storage of seeds from wild plants. The project focuses on gathering knowledge from existing programs to develop and test an approach to produce regional seeds in Sweden, adapted to Swedish conditions. Based on existing knowledge, methods will be developed for seed collection, cleaning, storage, testing of seed viability and cultivation on a larger scale.

During 2025, NordGen received more than 100 seed samples as a result of the project.
SwedeSeed is funded by the Swedish Board of Agriculture and will run from 2024 to 2027.

Nordic flax futures

This project will collect information on what it requires to re-establish flax and linen production in the Nordic countries – from the current small-scale flax projects towards a larger scale production. Flax and linen production involves agriculture, fibre processing, spinning and textiles. This complex topic requires new competencies to be developed across several sectors.

The goal of **Nordic flax futures** is to establish a network among the parties to be involved, particularly in the areas of agriculture, education, and the related industry across the value chain. We will explore the current state of flax and linen production, and assess the necessary resources and infrastructure for scaling up, especially in what comes to the necessary skills and knowledge that needs to be rebuilt across the different sectors involved.

By gathering insights from various regions, we aim to facilitate knowledge exchange and collaboration among participants. This initiative will enhance business connections among farmers, educators, artisans, designers, and commercial entities involved in the flax and linen industry – ultimately to contribute to the growth of flax and linen production in the Nordic countries.

Nordic flax futures is funded by the Nordic Council of Ministers through **Nordplus Horizontal.** The project will run during 2025 to 2027 with partners in Sweden, Finland, Norway and Denmark.

One of several flax varieties in NordGen's collection.

NoLa sheep

Genomic characterisation of Nordic Landrace sheep breeds for sustainable management and conservation (NoLa sheep) is a PhD project that aims to develop informed advice for improving the conservation and sustainability of the Nordic sheep genetic resources through genetic characterisation of the Nordic sheep breeds.

This aim as three subgoals which are:

- To improve methodology for genomic evaluation of landrace sheep breeds.
- To evaluate the genetic uniqueness of Nordic landrace breeds both regionally and globally.
- To characterise genotypes linked to health, resilience and

Old Norwegian sheep, captured in Agder.

production traits within Nordic landrace sheep population.

By determining the uniqueness of the Nordic breeds and identifying investigating genotype-phenotype interactions of resource allocation traits, the project provides the data necessary to prioritize conservation efforts and sustainable production, supporting biodiversity and climate adaptation.

This project will be active during 2025 to 2029 and is a collaboration between the Norwegian University of Life Sciences and NordGen, co-funded by NordGen and the Research Council of Norway, and will lead to the completion of a PhD degree.

Quality assessment of gene-banked rooster semen

Quality assessment of gene-banked rooster semen or shorter *Rooster semen project* is a pilot project that was active during 2024 to 2025, and is a collaborative project between NordGen, NIBIO and the Norwegian University of Life Sciences (NMBU). The project aims to identify ways to improve the fertility success of frozen semen collected by roosters.

At present, the main method for conserving chickens in through live gene banking, which leaves this species particularly vulnerable to external threats such as disease. Previous projects have aimed to start cryoconservation for the species as well, collected and froze semen from the Norwegian gene bank for chickens. Unfortunately, the fertilisation rate after thawing was poor. In this pilot project, the remaining frozen semen from these roosters will be tested to unveil possible reasons for the poor fertility rate after thawing.

The Danish hen is a native chicken breed in Denmark.

For the cultivated diversity of the future

It has been shown that there are plant groups as well as geographical areas in Sweden that are poorly represented in the genebanks. In order to supplement the collections, new inventories and collection methods are required, as well as new innovative ideas about how plant material with its cultural history can be preserved and how knowledge about plants can be passed on.

The project *For the cultivated diversity of the future: Rethinking the long-term preservation of cultivated plants and their history*

The seed lentil *Gotlandslins*, one of the current seed samples in the Nordic seed collection that originates from Gotland.

will develop new methods for how supplementary collections and innovative conservation can take place for the cultivated diversity with a focus on older culturally valuable plants.

The current project wishes to develop methods and criteria for how this can be implemented. Based on a geographically defined area and in collaboration with local actors within cultivated diversity, the project wants to develop a model for how this can be done. In this project, Gotland has been chosen as the work area. After the end of the project, the results and experiences may be applied to other areas in the country, e.g. in the coastal and inland areas of northern Sweden.

The project is funded by the Swedish Board of Agriculture and will run from 2024 to 2026.

TastyBeans

The project *Sustainable production of locally produced, tasty and nutritious edamame beans* (TastyBeans) aims to develop local edamame soybean production in Denmark to meet rising demand for fresh, nutritious, and tasty plant-based foods, addressing challenges related to adaptation to northern climates and consumer preferences. A transition towards more plant-based diets requires a broader use of diverse plant protein sources. The highest protein content among vegetables is found in edamame – a specialty soybean. However, despite growing demand of edamame in Europe, it is mostly available as imported frozen products.

Project group meeting and field visit in Alnarp, July 2025.

A key barrier to local edamame production in northern climates is the lack of germplasm and suitable varieties for countries outside Asia. At the same time, soybean is a global crop with ability to adapt – meaning that a future warmer climate in Denmark will favour the expansion of soybean production there. Therefore, the TastyBeans project is set to increase understanding of the genetic mechanism underlying adaption to long days and temperature conditions at higher latitudes.

The project is funded by **Plant2Food**, a platform supported by Novo Nordisk Foundation.

PLANT-BASED PROTEIN

Top photo: The seed sample NGB 18054, *Gulböna från Östergarn*, originates from Gotland, Sweden.

The impact of climate change is becoming increasingly clear for every year. As a result, the demand for plant-based protein food is on the rise, not least domestically produced.

The Nordic countries have a long cultivation tradition of grain legumes such as fava beans and peas. Given the increased interest, the future of Nordic cultivation of grain legumes should be bright. An enlarged domestic production would also contribute to a positive direction when it comes to Nordic food security being a climate-smart alternative to imported soybeans. In addition, grain legumes such as peas have the capacity of nitrogen fixation in the fields, a property with many benefits.

Given the increased interest, the future of Nordic cultivation of grain legumes should be bright.

NordGen's collection includes fava beans, common beans, soybeans, lentils and more than 2.000 accessions of peas – an asset that can be of importance for the future Nordic plant breeding. Below you can read more about some of our work with grain legumes.

Key Activities

Focus on protein crops

As mentioned in the previous chapter Projects, the comprehensive project *Next generation genebanking* focusing on NordGen's entire collection of protein crops such as peas, beans, lentils and clover, will be active during 2024 to 2026. Another example is *TastyBeans*. Below are some additional examples of collaborative projects on protein crops that were active during 2025.

Nordic bean collection characterized

Another European project that NordGen is part of is called ExploDiv and is organized through The European Cooperative Programme for Plant Genetic Resources (ECPGR). Institutions from twelve European countries are partners in the project which, among other things, aims to identify and secure genetic resources within grain legumes to sustain adaptive capacity for resilience to climate change. During 2023, 30 accessions from the Nordic bean collection were cultivated in NordGen's garden to gain more knowledge on morphological traits. In 2024 the next step was to multiply 12 selected accessions, these were evaluated at different geographical sites during 2025.

The pea NGB 101520, *Stipula imminuata*, was included in a big pea donation from the Swedish Weibullsholm Plant Breeding Institute

Give peas a chance

Legume storage proteins are often used for replacing animal proteins in plant-based alternatives, however, they usually show a weaker gelation capacity, which is an essential functionality in many food products. This challenge is compensated through energy-intensive steps such as fractionation and heating, and there is need for more sustainable alternatives.

This project will use the potential genetic variations that exist in the more than 2,400 pea accessions in the Nordic genebank to select pea seeds having an optimal protein composition of albumins, globulins and individual proteins (e.g. legumins and vicilins) suitable for adding optimal gelling functionality to plant-based foods and use natural variation instead of intensive processing to achieve the desired functionality.

Falensky-42, one of the 51 seed samples included in the scientific article

The project is funded by Independent Research Fund Denmark and is active during 2022-2026. In 2025, researchers from the project announced in the scientific journal Food Chemistry that they have identified 51 old pea varieties from NordGen's collection that may be promising for use in future plant-based food production.

Near infrared analyzes of peas

In a collaboration between NordGen, Swedish University of Agricultural Sciences (SLU) and Foss analytics, a significant part of the Nordic pea collection was analyzed in 2023 using Near infrared (NIR) technology. This effort leds to more information about the pea collection, not least when it comes to the seed samples content of fat, protein, water as well as standard color. The cooperation continued and today the entire pea collection has

been analyzed.

European evaluation of grain legumes

NordGen is an active partner in the ECPGR project EVA legumes which began its operations in 2024. It is a European network activity focusing on evaluation of different grain legumes in diverse environments throughout Europe. The crops included beans, chickpea, fava bean, lentil, lupine, pea and orphan legumes. NordGen will be involved in field trials on lentil, lupine and beans taking place in 2025 and 2026.

Beans from NordGen's seed collection.

Top photo: Seed deposit event, October, 2025.

SVALBARD GLOBAL SEED VAULT

Svalbard Global Seed Vault is a backup facility for the world's crop diversity. By putting seed duplicates for long-term and safe storage in Svalbard, genebanks reduce the risk of losing invaluable genetic material if anything should happen to their original collections. NordGen is responsible for operating the Svalbard Global Seed Vault in cooperation with the Norwegian Ministry of Agriculture and Food and the international organization Global Crop Diversity Trust. NordGen's role in the Seed Vault partnership is to communicate with genebanks, handle seed deposits and update the Seed Portal – a publicly accessible database gathering information about the seeds stored in the Seed Vault.

Seed Vault openings: **3 (February, June and October)**	Depositing institutions in total (31/12 2025): **131**	Number of seed samples in the Vault (31/12 2025): **1,378,238**
New seed samples duplicates: **46,781**	New institutions signing the deposit agreement: **7**	Number of depositing institutions during 2024: **47**

NordGen staff with seed boxes during the seed deposit event in October.

Key activities

More than 46,000 safety duplicates

Ten genebanks either signed the Deposit agreement in 2025 and/or deposited their first seeds in 2025.[1]

In total 46,781 safety duplicates from 47 depositors were added to the Seed Vault collection in 2025. By the end of the year, the total holding of seed accessions in the Seed Vault was 1,378,238 samples deposited by 131 genebanks/institutes. In total, 167 seed boxes were taken into the Seed Vault by NordGen's staff in 2025.

The photo shows representatives from Peru at the October seed deposit.

100-year seed experiment established

To improve the knowledge on seed longevity, an experiment comprising seeds of globally important crops is underway in the Svalbard Global Seed Vault – a project that is planned to last for 100 years. The last seed samples belonging to the 100-year seed germination experiment in the Seed Vault were deployed in 2025 and the establishment of the project is thereby completed.

Nanofilm securing information

The nanofilm project increases the security and integrity of conserved seed sample data by printing box wise data on nanofilm and attaching film stripes to all seed boxes in the Seed Vault. Film stripes/labels to 470 boxes deposited in 2022 and 2023 have been attached to the corresponding boxes during 2025. Printing labels for another 210 boxes deposited in 2024 have been printed in 2025, for being attached during 2026. For future years, nano film labels will be produced and attached to boxes once a year, as a yearly routine included in the Seed Vault annual workplans and core budgets.

[1]New Depositors in 2025:

1. International Center for Biosaline Agriculture, **United Arab Emirates**
2. Malawi Plant Genetic Resources Centre, **Malawi**
3. Obafemi Awolowo University, **Nigeria**
4. Scientific Research Center of Agriculture, **Georgia**
5. Can Tho University, **Vietnam**
6. Malaysian Agricultural Research and Development Institute, **Malaysia**
7. Sveaskogs förvaltning AB, **Sweden**
8. Instituto Nacional de Innovación Agraria, **Peru**
9. Philippine Rice Research Institute, **Philippines**
10. Instituto de Ciencia y Tecnologia Agricolas, **Guatemala**

The Seed Vault was established in 2008 and is owned by Norway. NordGen is responsible for managing the Seed Vault in partnership with the **Norwegian Ministry of Agriculture and Food** and the international organization **Crop Trust**. The iconic building, safeguards security copies of seeds stored in genebanks and thereby contributes to securing the world's food supply.

The location of the Seed Vault was chosen due to Svalbard being a remote, cold and safe place, yet easily accessible for shipping and handling. In addition, the Nordic Genebank (now NordGen) stored a backup of the Nordic seed collection here already from 1984, something that inspired to the establishment of the Svalbard Global Seed Vault. The seed chambers of the Seed Vault are carved out from the solid rock of the Plateau mountain. They offer a frozen environment where artificial cooling keeps the temperature at a constant –18°C and according to FAO's genebank standards. The ownership of the seeds stored in the Seed Vault remains with the depositing genebank, and only the institution that deposited the seeds are allowed to withdraw them.

Representative from the Philippines at the seed deposit in February 2025.

PUBLIC-PRIVATE PARTNERSHIP FOR PRE-BREEDING

Together we are stronger. That's the very essence of the Nordic Public-Private Partnership (PPP) for pre-breeding. Through the partnership, plant breeding companies in the Nordic region can cooperate in a non-competitive way on pre-breeding projects and cooperate on research with the Nordic public institutions. The Nordic Public-Private Partnership for pre-breeding is a collaboration aiming to strengthen plant pre-breeding in the Nordic countries and through its work promoting sustainable use of genetic resources in the Nordic region with its unique climate, temperature, and daylight. The Nordic Public-Private Partnership (PPP) for pre-breeding is funded by the Nordic countries through the Nordic Council of Ministers as well as the plant breeding entities. The secretariat is placed at NordGen.

> *Together we are stronger. That's the very essence of the Nordic Public-Private Partnership (PPP) for pre-breeding.*

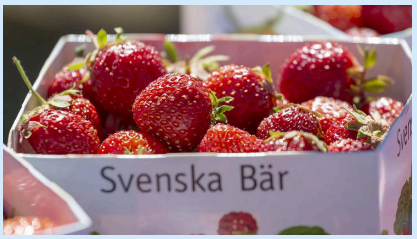
The Nordic Public-Private Partnership (PPP) for pre-breeding is a cooperation intended to strengthen plant breeding in the Nordic countries and through its work promote sustainable exploitation of genetic resources in the Nordic region with its unique climate, temperature, and daylight. The PPP is funded by the Nordic countries and plant breeding entities. The PPP Secretariat at NordGen is responsible for the administration of the Nordic PPP. The PPP Secretariat facilitates project management in cooperation with the PPP Steering Committee.

Key Activities

PPP-report

2025 marked the second year for the PPP program period 2024-2026. During the year, the PPP Secretariat held its annual meetings and the work continued on the projects currently underway. In this chapter you can read more about the these important projects.

BERRIES – Development of germplasm for berry crops



This new project has the main aim to develop the germplasm of strawberry and raspberry available for Nordic and Baltic breeding. In strawberry the aim is to enrich the gene pool for breeding through introduction of novel genes from the origin species of modern strawberry. In raspberry the project will explore and exploit the diversity in national raspberry cultivar collections in the Nordic-Baltic countries.

Partners: Njøs Fruit and Berry Centre AS (NO) | Graminor AS (NO) | Natural Resources Institute Finland, Luke (FI) | Estonian University of Life Sciences (EE) | Institute of Horticulture (LV) | The Programme for Diversity of Cultivated Plants / SLU (SE) | University of Copenhagen (DK) | The Norwegian Institute of Bioeconomy Research, NIBIO (NO)

RobOat – Robustness of Oats for the Nordic Region

RobOat is also a new project with the main aim to develop the resistance of future oats against biotic (especially crown rust and semi-loose smut) and abiotic (drought and waterlogging) stress factors. The partners will study the less explored oat genetic resources from NordGen and other collections by combining diverse phenotyping, genotyping and genomic methodologies.

Partners: Agrologica (DK) | Boreal Plant Breeding Ltd (FI) | Graminor AS (NO) | Lantmännen (SE) | Agricultural University of Iceland (IS) | Natural Resources Institute Finland, Luke (FI) | Lund University (SE) | Norwegian University of Life Sciences, NMBU (NO) | NordGen (the Nordic countries) | Nordic Seed A/S (DK) | Oatly (SE) | Swedish University of Agricultural Sciences, SLU (SE)

3) CResWheat – Pre-breeding for Nordic climate-resilient spring wheat II

This project, a continuation from the previous project period, has the main objective to support the breeding of climate-resilient

spring wheat by identifying genetic resources for disease resistance, drought tolerance and important adaptive traits for the Nordic region, as well as conducting genetic studies and providing breeders with germplasm and markers.

Partners: Swedish University of Agricultural Sciences, SLU (SE) | NordGen (the Nordic countries) | Nordic Seed A/S (DK) | Boreal Plant Breeding Ltd (FI) | Sejet Planteforædling I/S (DK) | Natural Resources Institute Finland, Luke (FI) | Lantmännen (SE) | Norwegian University of Life Sciences, NMBU (NO) | Aarhus University (DK) | Graminor AS (NO) | Centre of Estonian Rural Research and Knowledge, METK (EE)

4) SustainPotato – PPP Collaboration to Advance Nordic Potato Variety Development With Enhanced Resistance to Diseases by Pre-breeding Phase II

In the second phase of the SustainPotato project, the focus remains steadfast on advancing the development and utilization of genetic resources, alongside the deployment of cutting-edge molecular and phenomic tools. The primary objective remains clear: enhance disease resistance in potato breeding across the Nordic region, with a particular emphasis on combatting the formidable late blight disease.

Partners: Graminor AS (NO) | Danespo (DK) | Swedish University of Agricultural Sciences, SLU (SE) | NIBIO (NO) | NordGen (the Nordic countries) | Centre of Estonian Rural Research and Knowledge, METK (EE)

FINANCIAL STATEMENT

The Financial Statement for the year ending 31 December 2025 was prepared in accordance with Swedish National Financial Reporting Standards and audited by the Swedish National Audit Office.

(TSEK)	Budget 2025	Results 2025
Income		
Nordic Council of Ministers ordinary budget	36.076	36.401
National contributions	7.574	7.611
Other income	450	631
Financial income	0	0
Project funds, Nordic Council of Ministers	0	5
Other external project funding	13.202	14.405
Total income	**57.302**	**59.053**
Costs		
Staff costs	30.211	29.041
Goods and services	13.568	9.462
Contribution to external projects	115	115
Other costs	19.145	12.744
Total costs	63.039	51.361
Result year	**-5.737**	**7.692**

BOARD

The list below shows those who were active on the board 31/12/2024.

BOARD MEMBERS	ALTERNATES
Finland	
Tove Jern	Kati Lassi
Ministry of Agriculture and Forestry	Ministry of Agriculture and Forestry
Sweden	
Mette Kjøbek Petersen, Chair	Ulrika Tjälldén
Ministry for Rural Affairs and Infrastructure	Ministry of Climate and Enterprise
Denmark	
Kristine Riskær	Kristine Bech Klindt
Danish Agricultural and Fisheries Agency	Danish Agricultural and Fisheries Agency
Iceland	
Hrannar Smari Hilmarsson – Vice Chair	Ólöf Ósk Guðmundsdóttir
Agricultural University of Iceland	Agricultural University of Iceland
Norway	
Geir Dalholt	Svanhild Isabell Batta Torheim
Ministry of Agriculture and Food	Ministry of Agriculture and Food
The Faroe Islands	
Tróndur Gilli Leivsson	Oyvindur av Skarði
The Agricultural Agency	Ministry of Foreign Affairs, Industry and Trade

OBSERVERS	
Greenland	**The Environmental Sector**
Birgitte Jacobsen	Katileena Lohtander-Buckbee
Ministry of Fisheries, Hunting and Agriculture	The Finnish Environment Institute (Syke), FI
NordGen Staff Representative	**Nordic Council of Ministers**
Hulda Götmark	Adam Høyer Lentz

NordGen Annual Review 2025

NordGen Publication Series: 2026:01

The publication is available at NordGen's website or at www.norden.org/nordpub.

Cover photo: Scenery from Þórsmörk nature reserve in Iceland during an excurision at the *NordGen Forest Conference 2025.*, photo by Jonatan Jacobson/NordGen.

Layout: Jonatan Jacobson/NordGen.

Other photos: NordGen if not otherwise stated.

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NordGen

The Nordic Genetic Resource Centre (NordGen) is the Nordic countries' gene bank and knowledge center for genetic resources. NordGen is an organisation under the Nordic Council of Minister and works with the mission of conserving and facilitating the sustainable use of genetic resources linked to food, agriculture and forestry.

Address: Växthusvägen 12, 234 23 Alnarp, Sverige
Website: www.nordgen.org
E-mail: info@nordgen.org
Phone number: +46 40 53 66 40