

Paradigm shift within plant breeding

With newly installed technology at Lantmännen's plant breeding department in Svalöv, future crops will be developed much faster than before. By using new cultivation chambers, enhanced computing power and an advanced laboratory, the characteristics of the crops are being mapped with high precision. The aim is to develop new varieties with increased yields, better quality, and stronger resistance to climate change, disease, and infestation.

The new facility in Svalöv, located in the southern parts of Sweden, is equipped with several modern cultivation chambers where light, temperature and other environmental factors can be precisely regulated, which provides conditions for so-called "Speed breeding". In each chamber, 20 000 seedlings can be grown for up to six generations per year, compared to one generation per year in the field. Robots take leaf samples and extract DNA, which is then read off automatically. The information contained in the genome is analyzed using advanced algorithms and provides knowledge of the special properties of each plant.

It is estimated that plant breeding has accounted for about one percent of the annual productivity increase in Swedish agriculture, since the mid-20th century until today. With the help of new technical aids and high-tech laboratory research, the processes are both completed much faster and with increased precision, which strengthens the potential of plant breeding going forward.

"Our new facility is one of the best in the world, and now, we can use completely groundbreaking technologies. By combining speed and precision, we can quickly find the plants that has the capacity of becoming the new varieties of the future. This opens up completely new opportunities for plant breeding, enabling us to respond to the demands of a changing environment, whether it concerns climate change or the wishes of consumers," says Annette Olesen, Director Plant Breeding at Lantmännen.

Additionally, the environmental gains are extensive. According to Lantmännen's estimates, plant breeding may be one of the single biggest factors in achieving goals of reduced climate impact from the agriculture sector, in line with the Paris Agreement.

"With improved varieties that, among other things, have better nutrient absorption and increased productivity, we can continue to reduce the climate impact of agriculture. This new investment in Svalöv gives us a powerful new tool to achieve the goals set for the farming of the future. It will be crucial, in order for us to meet the demands for halved emissions every ten years and reach the goals of the Paris Agreement and an important contribution to meeting the changing growing climate we already see, says Claes Johansson, Director Sustainable Development at Lantmännen.

Today, Lantmännen inaugurates the new plant breeding facility, which is part of Framtidsgården Svalöv, where new technology and cultivation methods are to be tested. At Svalöv, Lantmännen will achieve more sustainable and profitable practices for farming of the future.

Lantmännen's Future Farms

At Lantmännens' Farms of the Future, we put theory into practice, apply new knowledge and build experiences. Here we want to show our customers and partners what the Farming of the Future looks like, with the ambition to inspire and show the possibilities for the future. These farms are located in Bjertorp, Viken and Svalöv. Together, they provide a model showing how productivity, resource efficiency and environmental considerations can be improved for us to achieve the sustainable and profitable

Farming of the Future.

For more information, please contact:

Annette Olesen, Director Plant Breeding, Lantmännen

E-mail: annette.olesen@lantmannen.com

Claes Johansson, Director Sustainable Development, Lantmännen

E-mail: claes.johansson@lantmannen.com

Lantmännen's press office

Tel: 010 556 88 00

E-mail: press@lantmannen.com

About Lantmännen

Lantmännen is an agricultural cooperative and Northern Europe's leader in agriculture, machinery, bioenergy and food products. Owned by 19,000 Swedish farmers, we have 10,000 employees, operations in over 20 countries and an annual turnover of SEK 50 billion. With grain at the heart of our operations, we refine arable land resources to make farming thrive. Some of our best-known food brands are AXA, Bonjour, Kungsörnen, GoGreen, GooH, FINN CRISP, Schulstad and Vaasan. Our company is founded on the knowledge and values acquired through generations of farmers. With research, development and operations throughout the value chain, together we take responsibility from field to fork. For more information: www.lantmannen.com