



The Lantmännen 2019 Harvest Forecast:
**This year's harvest –
above the 5-year average**



The fields are looking good in general and we expect a bigger harvest than the 5-year average. Following last year's drought, however, there is a shortage of sub soil water reserves across the whole country and the crops are not equipped for a possible summer drought. The optimum weather for grain is just over 20-degree temperatures and regular rainfall."

– Mikael Jeppsson,
Head of the Grain Unit at Lantmännen



Lantmännen is an agricultural cooperative and Northern Europe leader in agriculture, machinery, bioenergy and food products. We are owned by 25,000 Swedish farmers and with research, development and operations throughout the value chain together we take responsibility from field to fork.

This year's harvest forecast:

**6,3
million tons**

Lantmännen's forecast for grain, oilseed crops and pulses amounts to 6.3 million tons for 2019. This estimate is above the 5-year average and 75 percent higher than last year's extraordinarily low harvest of 3.6 million tons.

A good grain harvest is of utmost importance for Lantmännen members, Swedish farmers, who were hit hard by last year's heat and drought.

Things are looking good to get a high quality harvest, but we will only get actual results once the harvest has been brought in. Grain of high quality is of great importance in being able to meet demand from both Swedish industry and export customers.

The areas in the Baltic Sea Region have the potential to bring in good harvests and then it is even more important that the Swedish products is of a quality that enables us to be competitive on the world market. After last year's shortage and big imports, it is absolutely vital that we can deliver Swedish grain to our customers both in Sweden and abroad, where we have built up long-term business relationships over a long period.

How Lantmännen calculates its harvest forecast

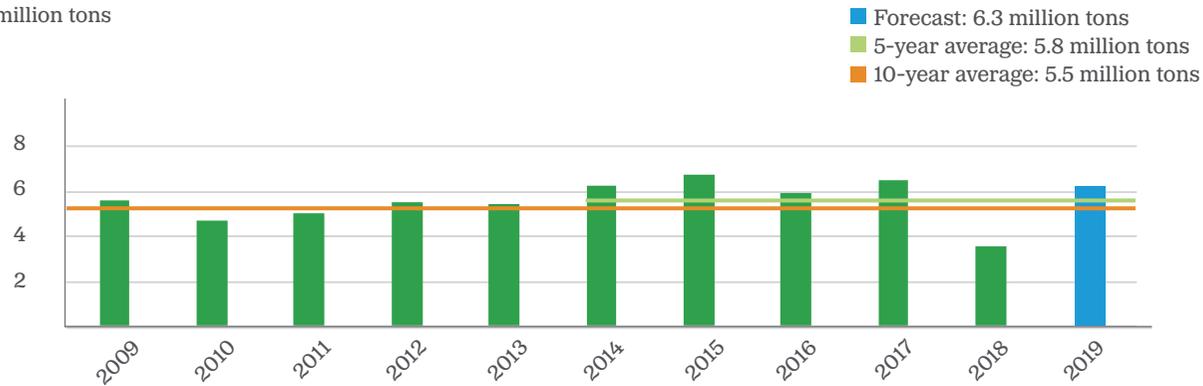
In July each year, Lantmännen publishes its harvest forecast that estimates how big the harvest for the year will be. The forecast aims to give Lantmännen data on the amount of grain that will be delivered by Swedish farmers during the year. The forecast also means the general public are given information on the coming harvest, news that usually attracts big interest.

The harvest forecast is based on a yield assessment, using weather data, rainfall, temperatures and areas sown for each county, that farmers in Sweden submit to the Swedish Board of Agriculture. Historic data, such as yields for similar years, are also factored in. The forecast is then reconciled by Lantmännen sales persons in each respective county and updated with any new facts before publication.

Making an assessment of the forecast in advance is difficult, which is why it is important to remember that the harvest forecast is just that, a forecast. We will only know for sure what this year's harvest will look like once the farmers have brought in their crops and the results have been compiled.

Harvest volume per year, Sweden

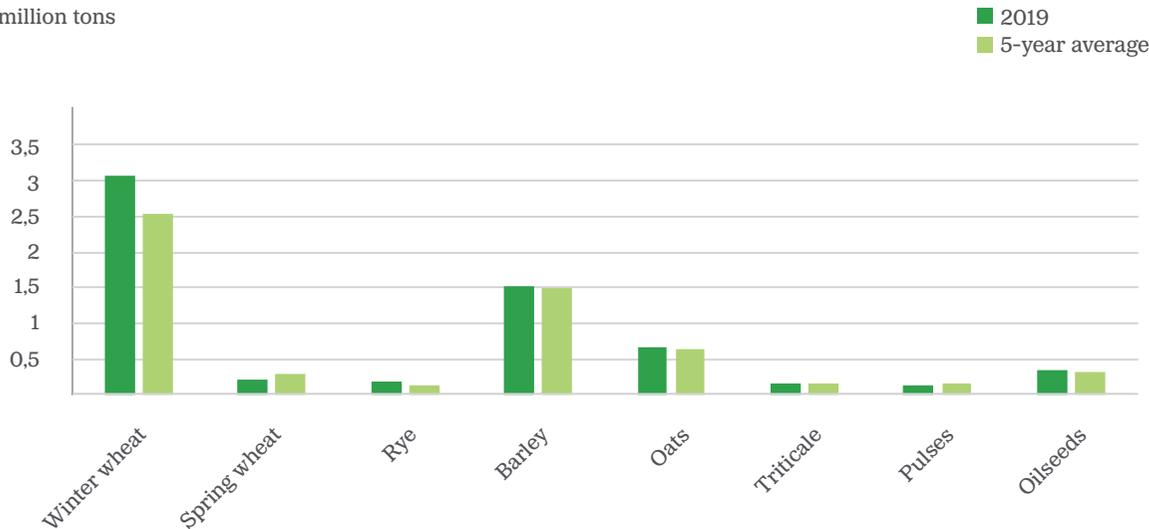
Unit: million tons



Last year saw a record low harvest of 3.6 million tons. The 2017 harvest amounted to 6.5 million tons, in 2016 it was 6.0 million tons and in 2015, we had a record high harvest of 6.7 million tons.

Harvest forecast for 2019, by crop

Unit: million tons



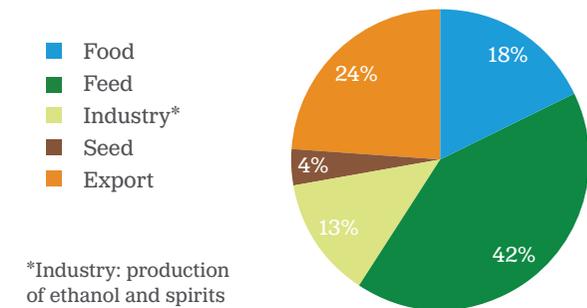
Rainfall and groundwater levels

The rainfall has been more favourable this year than last year. It has rained regularly in most areas, although there have been local variations and big differences in the amounts of rain. The water balance has been at a good level over the past six months, while the water balance over the last twelve months has been far below normal.

Despite regular rainfall over the last six months, the drought last year and dry start to 2019 has meant the water balance has not yet been restored. In other words, the lack of rain since last summer means groundwater has not been topped up, with the result that groundwater levels in Sweden remain low. The sub soil water reserves are so low that the grain is not able to withstand hot, dry periods without this having a negative effect on the yield.

Water balance = the difference between rainfall and water lost through evaporation / irrigation and drainage.

How grain crops are used



*Industry: production of ethanol and spirits

The road to the 2019 harvest

Month by month

- Once the harvest had been brought in after last year's extreme weather, Lantmännen was able to confirm that the combined harvest in Sweden amounted to no more than 3.6 million tons – the lowest harvest since the end of the 1950s.
- Sweden's farmers were able to plant their winter crops early and the autumn planting went according to plan, which resulted in a very high autumn acreage, especially of wheat and rye.
- The water conditions were favourable in the autumn, and the crops were able to become well-established in good condition.
- The autumn was followed by a mild winter with low winter killings.
- Spring planting started as normal to late in the south and relatively early in central Sweden. This too, went according to plan.
- Spring saw a dry start followed by rain in May. May was also a cold month, which gave crops a chance to slowly establish roots and grow well.
- The crops were showing good harvest potential in spring and farmers were busy giving the grain additional nutrition, which increased the chances of high quality. There was enough rain in the spring in most places which gave the crops time to absorb nutrition. However, the amount of rain varied around the country and in some places, more rain had been needed to make the crops robust enough to withstand possible stress before the harvest.
- At the end of June, temperatures rose to over 30-degrees in many parts of Sweden, which slightly reduced the harvest potential yield.
- In mid-July, the fields are looking good in general and Lantmännen now predicts the harvest will outperform the 5-year average.
- If we will have 25-30 degree heat and brilliant sunshine from now to harvest time, this would adversely affect the chances of a good harvest.
- Harvesting will start in July/August, with south Sweden leading the way.
- The harvest will be completed between August and October and the results will be compiled.

A changing climate

Last year's drought and heatwave, with the subsequent poor harvest, had a big impact on Swedish agriculture and food production. For the first time in decades, Sweden was no longer self-sufficient in grain, a staple commodity. The production of dairy products, meat and beer were also adversely affected. A changing climate can lead to more extreme types of weather and more poor harvests in years to come in Sweden.

Despite Sweden's big potential with unique added values and high food safety, the country is already today highly dependent on imports in the food area. With the help of R&D within e.g. plant breeding, Lantmännen is developing new crops, that can withstand these climate changes and contribute to increased food provision in Sweden.

Lantmännen invests SEK 250-300 million a year in research, development and innovation, above all within the grain value chain. Lantmännen is involved in numerous projects that aim to develop new crops, such as in partnership with SLU (Swedish University of Agricultural Sciences) and SLU Grogrund – a national centre of excellence for plant breeding and food crops.

About some of these plant breeding projects

Climate stable wheat: Aims to develop new wheat strains with a greater capacity for a good yield in a changing climate and that have good baking properties, for increased food provision in Sweden.

Resistance breeding for healthy crops: Breeding wheat, red clover, potatoes, sugar beet and peas with high resistance to disease, to reduce the use of chemical crop protection products.

Genome selection in red clover: Establish a more efficient breeding method and improved properties in red clover, an important crop in roughage that is the basis for efficient beef and milk production.

Perennial grain: Aims to develop perennial grain on a 10-15 year horizon. Crops are similar to wheat and barley but have stronger root systems that are able to extract water at greater depths and therefore better able to withstand drought and rain.