

Sustainability is driving companies to extract more value from grains and oilseeds

Producers and traders of grains and oilseeds are riding a wave of high commodity prices. Although this boosts revenues, longer-term demand growth in the EU remains limited. Changes in consumer preferences and policies are leading companies to strategies that put more emphasis on higher value-added products



A farmer tends to his rapeseed crop

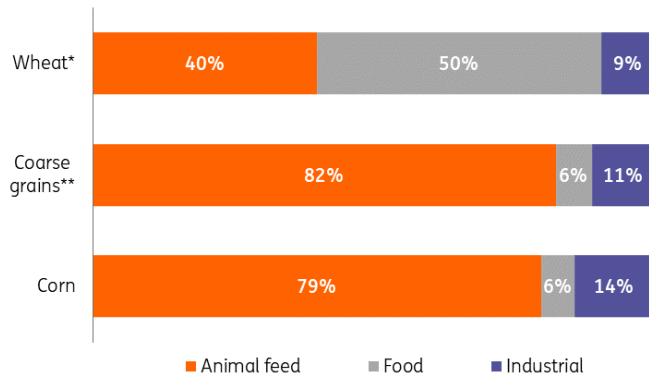
Many uses for grain and oilseed crops

There are three major end markets for grain and oilseed products: food, animal feed and industrial use, and these include applications like alcohol and starch production (wheat), malting (barley) and biofuel production (corn, rapeseed, wheat). Grain and oilseed products used for human consumption have a relatively high value due to the higher quality standards, but in terms of volume, most of the grains and oilseeds in the EU end up in animal feed. Products and end markets are interconnected and complimentary, so when a crop like rapeseed is crushed for oil,

which is used for food and biofuels, the byproduct of protein-rich meal is sold to livestock farmers.

Majority of grain products in the EU is used for animal feed

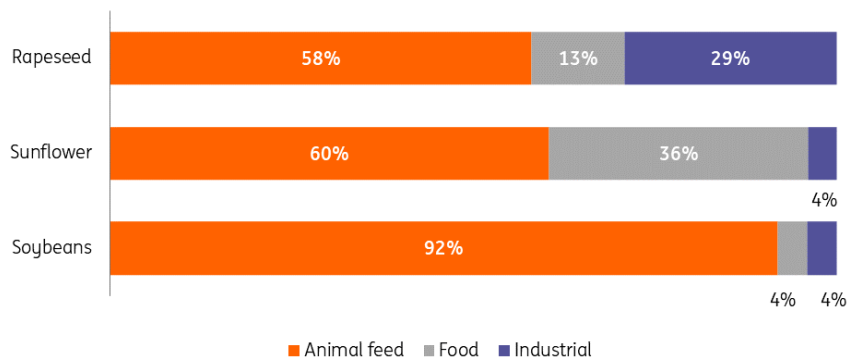
Based on EU domestic use in 2020/21 season



Source: Source: European Commission, ING research, *includes common and durum wheat, **coarse grains mainly concern barley and triticale

Oilseed crops are mainly used for animal feed

Based on EU domestic use in 2019/20 season



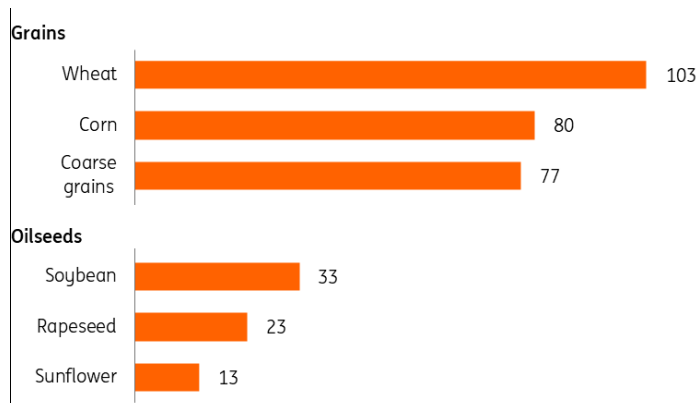
Source: Source: USDA FAS, ING Research, includes both oils and meals

Little growth in EU demand for food, feed and biofuel

In the past decade, EU domestic use of wheat and coarse grains has slightly declined while corn and oilseeds, most notably sunflower, still experienced growth. Against a background of growing global demand, opportunities for grain and oilseed companies to grow their sales volume in the EU are limited. According to the recent EU agricultural outlook, demand growth for corn and oilseeds will level off towards 2030. However, changes in consumer demand continue to enable grain and oilseed producers, traders and processors to provide more value-added inputs for food, feed and biofuel.

Wheat is the major crop in terms of domestic use

Total EU domestic use of major grain and oilseed crops, in million tonnes



Source: European Commission, USDA FAS, ING Research

Domestic supply could come under some pressure due to new EU policies

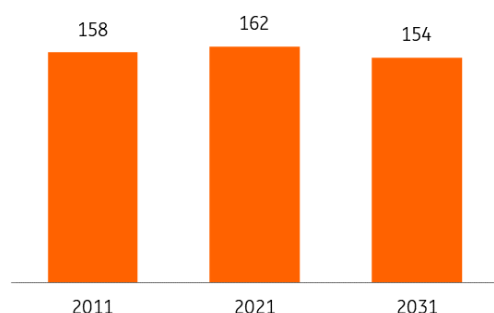
On the supply side, there is more uncertainty given that EU targets from the Farm to Fork strategy, such as a reduction in the use of pesticides and fertiliser, still need to be translated into (national) policies. The general view is that these targets could prove detrimental for yields of arable crops while being positive for the environment. Due to the potential negative impact on domestic supply, grain and oilseeds companies could be reluctant to invest in (processing) capacity in the EU. If domestic supply decreases, this could erode the EU's position of being an exporter of crops like wheat and barley whilst at the same time, it could be beneficial for companies exporting into the EU.

Animal feed demand expected to decline in the EU

Approximately two-thirds of grain and oilseed volume in the EU are used for animal feed and cereals, oilseed protein meal and related byproducts make up more than 90% of a typical compound feed. Towards 2030, feed demand in the EU is expected to decline by 0.5% per year, according to the latest EU Agricultural Outlook. Demand for wheat, coarse grains and soybeans is forecast to see a more marked decline than corn. The expected decrease in feed demand stems mainly from a smaller number of cows and pigs in combination with a further improvement in animal feed efficiency.

EU has reached 'peak' feed demand

Total feed demand, in million tonnes of protein equivalent



Source: Source: European Commission, ING Research

Sustainability leads to a shift in crop preferences

Apart from a slight fall in demand, grain and oilseed suppliers are also being asked to contribute to [a sustainable shift in feed composition](#). New EU regulations which aim to ban soy products linked to deforestation adds momentum to this trend. At the same time, companies in the meat and dairy industry have expressed a growing interest in feeding animals a higher proportion of local grains and oilseeds to reduce the carbon footprint of their products. One of the most likely outcomes of these developments is a further growth of the EU soybean area and production at the expense of imports.

Feed traceability and environmental footprint gain importance

For grain and oilseed companies that supply the EU feed industry, the challenge is twofold. Firstly, companies will be asked for detailed environmental footprint and geolocation data of their products more often. Hence this requires companies to build the (data) infrastructure and capabilities to trace products throughout the supply chain, which is complex given that most products are transported and traded in bulk. Secondly, there seems to be a favourable environment for 'locally' produced grains and oilseeds as these are considered more sustainable. As the production of crops like corn and soybean is more price competitive outside the EU, producers in the EU will look to improve yields and opportunities to get a green premium for their products.

Food: demand shift rather than demand growth

The EU is expected to reach a peak in population in the second half of this decade and, as such, there is not much growth in total food demand. Bakery products are a major food application for grains and demand from the bakery industry. In France, for example, the bakery sector is responsible for a quarter of total domestic wheat use. But both grains and oilseeds are being used as an ingredient in a much wider range of daily groceries. What these categories have in common is the trend towards healthier and more sustainable products. The broader introduction of gluten-free and organic products in categories like pasta provides an example. Furthermore, the roll-out of food labels like Nutri-Score could lead to increased use of wholegrain ingredients and certain vegetable oils such as rapeseed, as food manufacturers look for ways to improve the nutritional

label on their products.

Plant-based food stands out among mature categories

Among many low-growth categories in food, plant-based meat and dairy alternatives stand out as a pocket of growth. 'Plant-based' provides a relatively new market for suppliers of grains and oilseed-derived ingredients as meat alternatives often rely on soy, wheat and pea protein while dairy alternatives generally use soy, oat and nuts as a source of protein. With a market value of around [€5 billion the market for plant-based meat and dairy alternatives](#) in Europe is smaller than the pasta & noodles market (€12 billion) and much smaller compared to the bakery market (€170 billion). But, unlike the expected volume declines in bakery demand, plant-based alternatives are still growing and are also attracting new entrants from the meat and dairy industry, such as Danish Crown and DMK.

Plant-based products are an additional category in a broad range of food products containing grains and oilseeds

Product category	Contains grains	Contains oilseeds
Bakery	✓	✓
Pasta/noodles	✓	
Beer/spirits	✓	
Vegetable oils and fats		✓
Sauces		✓
Snacks	✓	✓
Confectionery		✓
Plant-based meat and dairy alternatives	✓	✓

Source: Source: ING Research

Grain and oilseed companies embrace plant-based trend

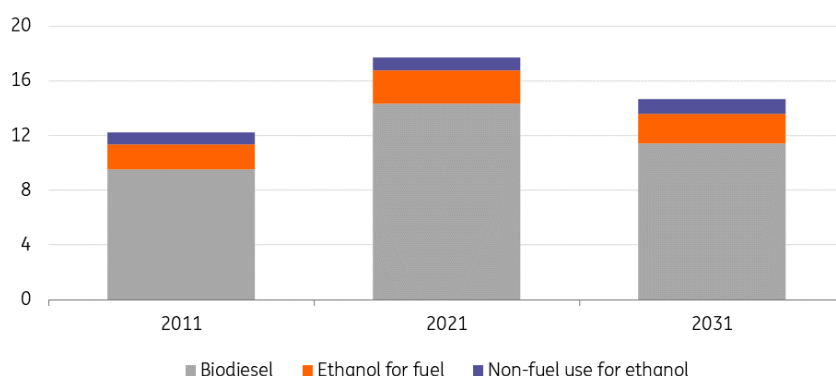
As a result of the plant-based trend, grain and oilseed companies like ADM, Avril, Cargill, Kerry, Lantmännen and Roquette have all been adding plant-based protein processing capacity and products to their portfolio. In some cases the trend has enabled them to upgrade lower value feed applications to higher value products for food use. Besides an increase in the use of major plant-based proteins sources like soy, wheat and yellow pea, we would also expect more research and development into specialised protein sources like sunflower, rapeseed and corn.

Biofuels demand to come under pressure from alternative fuelled vehicles

The expected growth in [electric vehicle \(EV\) sales](#) in the coming years should negatively impact biofuel demand. The EU has already seen an increase in the share of alternative fuel vehicle sales (including EVs, hybrid, natural gas and LPG vehicles). EU alternative fuel passenger cars made up 5.9% of total registrations in 2017 compared to 24.5% in 2020. Biodiesel is likely to suffer the most, given that diesel vehicle sales relative to petrol sales have fallen consistently since the ['dieselgate' scandal](#). Ethanol demand will be better supported, given that petrol vehicle sales are holding up relatively better, along with growth in demand from other end users. This includes industrial and food & beverages. EU biofuel demand is forecast to fall by 1.9% per year through until 2031, according to the latest EU Agricultural Outlook.

EU biofuel demand set to peak

Total biofuel demand, in million tonnes of oil equivalent



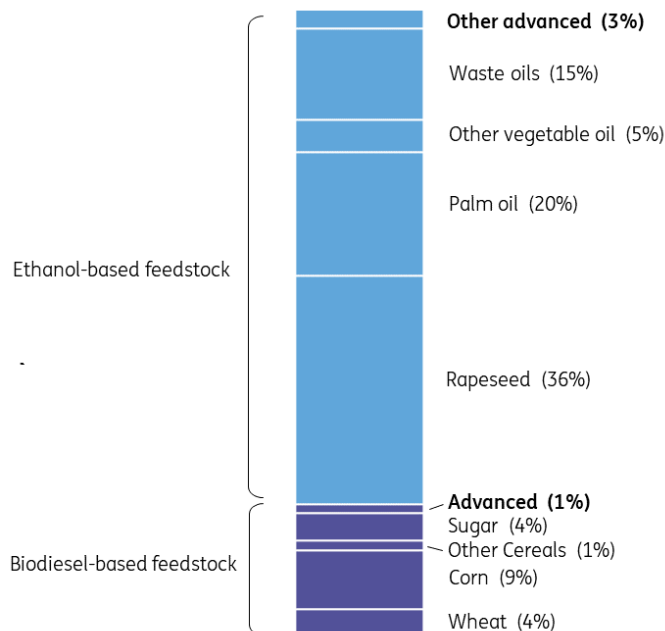
Source: Source: European Commission, ING Research

More of a move towards advanced biofuels

There will also be changes in biofuel feedstock. EU regulation will push biofuel producers away from using first-generation biofuels to more advanced biofuels, given the concerns over using food crops for energy. The EU wants the biofuel industry to use feedstock which has a low indirect land-use change. This will reduce a key market for several grain and oilseed crops. For example, the EU plans to phase out the use of imported palm oil as a feedstock, with it no longer being classed as a green fuel from 2030. The focus to increase the share of alternative biofuels means stronger demand for waste products such as used cooking oil, waste food and a few other more sustainable feedstocks. For now though, the supply of these feedstocks is rather limited.

Advanced biofuels still make up a small portion of total EU output

EU biofuel production split by feedstock-%



Source: Source: European Commission, ING Research

Investment opportunities in advanced biofuels

The decline in biofuel demand will be gradual and that should give time to grain and oilseed producers to find other homes for their products or switch to other crops. It is possible that increased demand from the aviation and maritime sector helps to offset weaker demand from road transportation. The bigger concern is for EU biofuel producers, where the industry will have to deal with falling demand, leaving it with potentially excess first-generation biofuel capacity. The solution for the industry would be to invest in the production of advanced biofuels. However, the potential for regulatory changes may hold back some in the industry from making necessary investments.

Companies have multiple options to cater to shifts in grain and oilseed demand

Given the demand trends, the emphasis for grain and oilseed companies is likely to be less on volume and more on value growth in the future. Both sustainability (feed, food and fuel) and health (food) are driving demand for value-added products and to meet these shifts, we see companies taking the following actions:

- Increase research and development into crops with specific characteristics (like higher protein content or specific oil composition)
- Diversify beyond the main commodities as smaller crops like oat and pea gain traction in food products.
- Initiate dedicated supply chains for either regional, organic or non-GMO products to improve

traceability from field to fork. This also 'decommoditises' part of the supply.

- Add processing capacity to supply food manufacturers with value-added products and ingredients.

Even with little volume growth in the EU, things look set to remain dynamic, even beyond the current commodity price peak.

Author

Thijs Geijer

Senior Sector Economist, Food & Agri

thijs.geijer@ing.com

Warren Patterson

Head of Commodities Strategy

Warren.Patterson@asia.ing.com

Disclaimer

This publication has been prepared by the Economic and Financial Analysis Division of ING Bank N.V. ("ING") solely for information purposes without regard to any particular user's investment objectives, financial situation, or means. *ING forms part of ING Group (being for this purpose ING Group N.V. and its subsidiary and affiliated companies).* The information in the publication is not an investment recommendation and it is not investment, legal or tax advice or an offer or solicitation to purchase or sell any financial instrument. Reasonable care has been taken to ensure that this publication is not untrue or misleading when published, but ING does not represent that it is accurate or complete. ING does not accept any liability for any direct, indirect or consequential loss arising from any use of this publication. Unless otherwise stated, any views, forecasts, or estimates are solely those of the author(s), as of the date of the publication and are subject to change without notice.

The distribution of this publication may be restricted by law or regulation in different jurisdictions and persons into whose possession this publication comes should inform themselves about, and observe, such restrictions.

Copyright and database rights protection exists in this report and it may not be reproduced, distributed or published by any person for any purpose without the prior express consent of ING. All rights are reserved. ING Bank N.V. is authorised by the Dutch Central Bank and supervised by the European Central Bank (ECB), the Dutch Central Bank (DNB) and the Dutch Authority for the Financial Markets (AFM). ING Bank N.V. is incorporated in the Netherlands (Trade Register no. 33031431 Amsterdam). In the United Kingdom this information is approved and/or communicated by ING Bank N.V., London Branch. ING Bank N.V., London Branch is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. ING Bank N.V., London branch is registered in England (Registration number BR000341) at 8-10 Moorgate, London EC2 6DA. For US Investors: Any person wishing to discuss this report or effect transactions in any security discussed herein should contact ING Financial Markets LLC, which is a member of the NYSE, FINRA and SIPC and part of ING, and which has accepted responsibility for the distribution of this report in the United States under applicable requirements.

Additional information is available on request. For more information about ING Group, please visit www.ing.com.