



International Farm Management Association Country Reports May 2021

(Report from Latvia added 27th September 2021)





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22 nd Congress 2019:	David Armstrong	Tasmania



IFMA May 2021 Country Report

It gives me great pleasure to introduce the IFMA country reports for 2021 detailing the diverse geographical, political, and financial environments that our agriculture industry faces around the world. In many ways these normal centre stage challenges pale into insignificance, given the disruption and grief that Covid 19 has caused in and amongst our communities, our colleagues, our friends, and our families.

After initial thoughts of a quick return to normal, the reality hits that there will be lasting changes across all aspects of what, just over a year ago, we took for granted to be normal. Hopefully, it will make us all slightly more appreciative of the time we have and how we can utilise it more wisely. It will change lifestyles and our choices as consumers, creating new opportunities for our working environments, the production bases we manage, and the business skills we need.

IFMA would like to extend a warm welcome to a new country report from Japan. Yukio Kinoshita is Associate Professor of Farm Management and Agricultural Economics at Iwate University in Japan. He is a keen supporter of IFMA having attended the conferences in Edinburgh and Tasmania. Hopefully if you can join us in Copenhagen, you will be able to meet him in person.

From our IFMA 'Hands On' farmer group discussions, it is clear that our industry is being challenged; challenged in every corner and challenged from every corner of the world. Smart phones and their social media apps, allow everybody with an opinion to be a journalist, making it easy to firmly place society problems on the doorsteps of others. Our consumers are increasingly seeking reassurance that their food is not only healthy, but from sustainable sources that are not damaging the planet beyond repair. Carbon neutral policies are frequently mentioned within these reports. Carbon farming is rapidly becoming the new cash crop enterprise and will soon have its own balance sheet within our company accounts. These challenges will not go away, we need to listen very carefully and seek out the new opportunities created. There is an ancient Chinese proverb that goes: *"When the winds of change blow, some people build walls, others build windmills"*.

This collection of country reports provides a unique insight into the issues surrounding the production of food from around the world. I thank all the contributors for their time in pulling these together and making them such an interesting and informative read.

Unfortunately, our Copenhagen congress 'Catch Up' will not take place this year, but if you have comments, questions, or points to make, then please table them and IFMA will try to facilitate a response.

Trevor Atkinson – IFMA President



The International Farm Management Association (IFMA)

IFMA is a society for people who are involved directly or indirectly in the agricultural process and who have an interest in the agriculture of parts of the world other than their own, exchange of knowledge and best practice.

This includes the whole spectrum of individual and corporate producers, farmers, managers, advisors, researchers, teachers, policy-makers, suppliers, farming and marketing organizations and agribusiness companies associated with agriculture, horticulture and rural enterprise.

IFMA has members in over 50 countries is organised and co-ordinated by a Council, with members drawn from around the world.

The objective of the Association is to further the knowledge and understanding of farming and farm business management and to exchange ideas and information about farm management theory and practice throughout the world.

- **IFMA International Congresses:**

These are organised every other year in countries around the world. They are organised locally, usually last for 6 days, which together with additional pre- and post-congress tours, provide not only an occasion to discuss farm management and agriculture in a global context, but also to learn a great deal about the host country's farming structure and its people. They are a totally unique experience.

The 2022 IFMA Congress which is the 23rd International Farm Management Conference will be hosted by the University of Copenhagen.

- **19th to the 25th June 2022 - Pre tour** http://ifma23.org/download/pretour_web.pdf

The pre congress tour covers Norway and Sweden starting in and arriving in Copenhagen ready for the Congress which opens on midsummer day.

- **25th to the 26th June 2022 – Next Gen Program**

This is a special programme which is being developed by the congress organisers for the next generation of farm managers and professionals and builds on the very successful one that took place in Tasmania in 2019.

- **26th June to the 1st July 2022 – Congress** <http://ifma23.org/index.html>

This will be the 23rd IFMA Congress whilst it follows a well proven format allowing delegates and speakers to exchange best practice its also allows the organisers to bring a flavour of the host country Agriculture management style and culture.

- **1st to the 7th July 2022 – Post Congress Tour** http://ifma23.org/files/20200409_Post-Congress_hjemmeside_compress.pdf

The post congress will allow the participants to gain a full understanding of modern farming practices in Denmark whilst taking in the culture and history of the country

- **Country Reports:**

Each year members of Council who represent different countries produce a report covering agriculture which provides a good snapshot of agriculture around the world.

Note:

All the authors of the Country reports are resident within the relevant Country and involved with Agricultural Management.



For further details and to register go to www.ifma23.org



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Argentina

Weather:

Overall, the weather was dry to very dry during our spring/summer, depending on the region. Autumn seems a bit better, we follow the Niña and Niño weather pattern, and this last Niña was a very dry summer.

If we have a good replenishing of soil moisture, we will probably increase winter crops acreage this coming year (2021/2022). Barley may have the largest increase as a percentage.

Economic Climate

We are still in a sort of lockdown, now a bit harsher. Vaccines are slowly arriving, hardly any extra investment in health investment during last year, plus mismanagement of our economy is preparing the ground for another big crisis. Schooling is a big issue, used politically by most political parties. Vaccines are being used politically, vaccinating all people in those states that are about to have elections, rest of the states 60+ are mostly all vaccinated, now moving to 50+ .

Our government is increasing our fiscal deficit, unfortunately with a subpar efficiency and transparency, increasing taxes, trying to help people but many businesses still closing. Inflation rate is above 4% per month, and the country is without access to international credit.

We have various exchange rates:

Exchange Rates in Argentina (May 28 th 2021)	Buy	Sale
Official Exchange Rate (used for grain sales)	93,75	99,75
To purchase USD in the market through a stockbroker	157,46	
Exchange rate to purchase USD for purchases with credit cards	163,94	

Inflation rate is above 4% per month, devaluation rate is around 3% a month, so our currency would appreciate for selling goods that are quoted in US dollars, i.e. grain

Livestock:

The beef industry is in the government's sight, the beef prices are increasing, annual consumption is dropping, close to 42 kgs per capita, exports were growing till the government closed all beef exports. So farmers have stopped selling beef for a week, and will probably keep de not selling beef for a few more days. Beef exports have a 9% export tax. The government might open selectively the beef export and might increase the export tax, but so far they are only rumours. A 430 kg liveweight steer would sell at approximately 195 \$Ar/ kg liveweight or 2 USD/ kg at the official rate.



Crops:

We are harvesting corn and soybean, overall good yields. We have had a couple of good rains, so soil moisture is excellent, and we are looking forward to a good winter crop!

Argentina is looking at having a slight increase in wheat acreage, and a larger increase percentage wise in barley acreage. Corn and soybean shall be analyzed further down the road, corn planting starts in August, and soybean planting end of September.

Farmer selling has been slightly less than other years in tonnage, yet similar in value. We have high export taxes, and in the following table I calculate the amount of US dollars I can purchase when I sell my grain, that is, I sell my grain quoted in US dollars at our local Grain Exchange, yet get paid in local currency at the official rate, then if I wish to save in US dollars, I purchase these at a Stock Broker at another rate.

Grain prices in Argentina May 7th 2021	CBOT USD/Ton	Export Tax	Local Grain Exchange - USD/Ton	If I wish to save in USD
Corn - July 2021	258	12%	213	132
Soybean - July 2021	562	33%	348	208
Wheat - July 2021	243	12%	222	153

Our inputs quoted in US dollars (chemicals and fertilizer) are purchased at official exchange rate. So it does not look too bad if you have a good yield.

We are 100 percent no till and have started using cover crops, we seed these cover crops in corn, when it is starting to dry up, about 60-70 days before harvest, so just before harvest we have an interesting cover crop stand. Below are two pictures, rye grass seed in the corn rows, and the same field just before harvest.



This is to have something growing most of the year, and to bring down chemical use and cost. We are looking at incorporating technology, we are using a web platform with satellite images, and on the sprayers we have sensors that will cut the spraying if the wind is too strong, and will gather information on speed and spraying quality.

We are looking to digitalize as much as possible our system, on the production side and on the administrative and accounting side as well.

David Hughes – May 2021



Australia

It should be noted that Australia supports a large diversity of agricultural pursuits, spread over many agro-climatic regions encompassing about 30 degrees of latitude. This report can therefore only be very generalised and will ignore many relatively small agricultural enterprise types, about which the authors have no knowledge or experience.

Weather

Australian weather offers huge diversity and contrasts as parts of the country can be experiencing drought while others are managing floods and fire. The majority of the Australian agricultural zone is now free from drought and has not suffered the ravages of fire during the last summer. Growing Season Rainfall has generally been such so as not to significantly limit agricultural production and in most areas has supported average to above average productivity.

In south-eastern Australia the distribution of annual rainfall continues to shift, so while average annual rainfall remains relatively constant, more summer rain and less winter rainfall is occurring in traditional winter rainfall areas. Associated with this shift, is more erratic and extreme weather events, such as high intensity rainfall and hailstorms resulting from thunderstorms.

Changes in rainfall patterns and frost events are continuing to influence arable crop cultivar selections and planting decisions. As a result, growers are anticipated to utilise larger plantings of break crops such as canola, pulses and lupins over cereals in 2021.

Australia's Bureau of Meteorology (BOM) is predicting a wetter and warmer winter, over most of the agricultural areas of southern Australia. The El Nino-Southern Oscillation Index is neutral, as are most other climate drivers.

Agriculture Economic Climate

Prices of all commodities are high driven by world and local demand, plus in the case of grazing industries, livestock shortages being heavily influenced by restocking demand following cessation of the drought which was almost universal across the agricultural zone until 2020.

Unlike some parts of the Australian economy, COVID-19 has with a few exceptions, not dented agricultural returns or confidence. However, some input-supply chain disruption is still occurring, due to both COVID-19 related issues overseas, plus increased demand following generally very good seasonal conditions in 2020. Also, COVID-19 has created significant workforce limitations due to cessation of overseas backpackers providing seasonal labour. Sheep shearers, many of whom travel from New Zealand to Australia are in very short supply.

Farmland values continue to rise strongly in every state of Australia, to record levels in many cases.

High commodity prices and historically very low interest rates are driving grazing land prices higher to be around \$1,100 per Dry Sheep Equivalent. There is thus increasing difficulty for small family



farms to expand and for young people without significant financial backing to enter agriculture. The Australian Government offers a loan support scheme to encourage young people to purchase their first farm.

Overseas ownership of agriculture land is increasing which is not always favourably received by Australian farming families, as the family-based farm is still the dominant form of farm ownership.

The median price per hectare of Australian farmland increased by 12.9% in 2020 to give a Compound Annual Growth Rate for the past twenty years of 7.6%pa. This trend of continuing increases in farmland values is expected to continue throughout 2021 and beyond.

Land remains tightly held in most regions and transaction levels in 2020 rebounded from historic lows in 2019. This demand is being driven by strong relatively consistent commodity prices, the excellent seasonal conditions boosting farmers' cash reserves and confidence to reinvest, plus record low interest rates. Higher land values on existing holdings also assist additional borrowings for land purchase by reducing existing Loan to Valuation Ratios (LVR). Often rapidly expanding farm businesses' growth is limited by their LVR, despite very strong cashflows to services the additional debt.

Farmers have to remain optimistic to remain in business. The gap between the better and not so good managers continues to widen, with the very good managers continuing to make trading surpluses even in poor seasons, which enables them to expand their businesses confidently to achieve even greater economies of scale. The larger well managed family farm operations are getting bigger, while smaller sub-economic operators are taking advantage of the high land prices to sell out.

China has a significant influence on the price and demand for Australian agricultural produce. Recent Chinese responses to political issues have resulted in large tariff increases for wine and rock lobster, plus cessation of the Malting Barley market, causing these sectors to seek alternative markets and stockpile product. Some producers and fishers have decided to exit the industry. This has reminded industry of the vulnerability of single market dependency.

In response to high commodity prices and high levels of productivity, sales of agricultural machinery are high, but delivery from international suppliers has been slow.

Livestock

Australian lamb production is expected to increase during 2021, due to both improved supply of lambs and heavier carcass weights, resulting from improved seasonal conditions.

Mutton production on the other hand is expected to decline during 2021, due to retention of stock for flock rebuilding.

Based on the above, lamb prices are expected to be lower in 2021 than the record highs experienced at the same time in 2020, due to the expected increase in supply without any expected increase in



export demand. By contrast mutton prices are expected to remain strong as they will be supported by tight supply and firm demand.

Farm gate prices for all beef cattle is currently the highest experienced in the history of the industry, driven by drought recovery and export demand given that around 70% of Australian produced beef is exported.

The national cattle herd is expected to increase again as the herd rebuilding evident in 2020 continues into 2021. Cattle prices are expected to decline from their record highs, as restocker demand fuelled by the availability of feed which underpinned the high prices during 2020, declines.

Rangelands beef production in the tropics and sub tropics remains highly dependent on the live export market largely to Asia.

COVID-19 has demonstrated the vulnerability of abattoirs to a pandemic or similar, which can shut them down with little notice, resulting in consequences throughout the supply chain.

Australian wool production is expected to increase during 2021, driven by flock rebuilding and better seasonal conditions conducive to wool growth. However this increase will be tempered by some producers continuing to move from Merinos to meat breeds, resulting from the relative strength of sheepmeat prices compared to wool prices.

Wool prices are heavily dependent on China's economic recovery from COVID-19, with some positive market moves seen recently.

Wool prices have fluctuated over the past few months, but the strong inverse relationship between price and fibre diameter remains largely driven by the Chinese dominated market. The increased demand for finer wool compared to medium and broader wool, is expected to continue leading to even higher price premiums for finer wool.

Skin prices are generally low possibly reflecting the lack of Chinese demand.

The majority (90%) of Tasmanian milk is processed for the export market, which is currently reflecting good returns at around \$6.20 per kg MF.

Tasmania and Victoria have a low farm-gate cost of production, as the industry is largely pasture based. Therefore this past year, characterised by high pasture production, has driven high on-farm production and profitability.

Major issues facing dairy farming is nutrient loss from farms to surface and aquifer flows, plus the processing of young bobby calves. The industry appears to be on notice to become more closely aligned with community expectations regarding these issues.



Arable

Australian grain yields for the 2020 crop in eastern Australia, were very high relative to long term averages. Grain prices remained unexpectedly high given the higher yields, due to strong demand resulting from both replenishment of domestic stocks and strong export markets, despite the Chinese tariffs applied to barley imports from Australia earlier in 2020. This resulted in gross returns per hectare being the highest on record for many grain producers. New South Wales and Victoria, Australia's most populous states, both had excellent seasons for winter crop production, but they also have quite high domestic markets for grain for both livestock production and human consumption.

In Western Australia, many areas grew above average tonnages of arable crops in 2020, on well below average Growing Season Rainfall, in some instances Decile 2 rainfall, while South Australia produced its fourth largest crop on record.

A greater number of microbreweries operating in Australia has increased domestic demand for malting barley.

Grain yields in Australia vary considerably from one season to another, generally resulting from variability in annual rainfall. The Growing Season in south-eastern Australia is considered to extend from April until October, when most of the winter dominant annual rainfall occurs. Winter crops were traditionally grown on Growing Season Rainfall (GSR), with summer rain often regarded as a nuisance to cropping enterprises, due to weed growth which required control.

The following graph compares Available Moisture, defined as GSR plus 30% of non-GSR minus 110 mm (allowance for evaporation), with the annual farm average canola yields for a typical farm near Temora in southern NSW, a town through which the IFMA22 Post Congress Tour passed.



AVAILABLE MOISTURE vs AVERAGE CANOLA YIELD 1991/92-2020/21

Temora District NSW Farm



This data illustrates the significant variability in Available Moisture and resultant crop yields (canola in this example), which challenge management of winter cropping businesses in southern Australia where winter broadacre cropping is practised. These graingrowers face significant risk factors which they must manage, particularly with decision making relating to crop inputs such as fertilisers and fungicides, plus forward marketing strategies.

Of particular note in the above graph is the extremely low Available Moisture figures for 1994, 2002, 2006 and 2007, 2017, 2018 and 2019, seven years out of the last thirty years which have been regarded as droughts, with the huge rebound in canola yield in 2020/21 from the previous three disastrous years, associated with a wetter year in 2020.

Graingrowers such as those from which the above data originates, have changed their cultural practices significantly during the last thirty years, in recognition of the major impact that rainfall, both Growing Season and non- Growing Season has on crop yields. These practice changes largely revolve around cropping systems which include stubble retention, zero-till and disc seeders, grain legumes and crop sequencing, plus brown manure legumes which provide enhanced levels of both Available Moisture and Nitrogen, which reduces the risk of the following canola crop.

An increase in area sown to canola, some pulses and lesser so, some wheat types, is expected in 2021 due to good opening rains that provided good soil moisture reserves (albeit from sub-tropical influences, rather than typical Southern-westerly cold fronts), plus a trend away from barley in both Western and South Australia. Continuing trade tensions with China have seen the majority of exported barley directed to other markets in South East Asia (Malt Barley) and the Middle East (Feed



Barley). Also, the price differential between GM and conventional Canola is narrowing and influencing grower rotation decisions.

Horticulture

The relatively dry autumn in temperate Australia, has resulted in root crops being harvested under good conditions which minimise soil structure damage and produce quality produce, which in the case of potatoes will store well for processing.

Demand for poppy extracts has declined with one company ceasing to grow in the southern region of Tasmania.

Demand for hemp seed continues, but the price ensures the relative competitiveness of this crop is low.

Production of seed for temperate pasture species is increasing in Tasmania. As such this enterprise provides both a grazing, seed and hay income.

Supply of bees for pollination is below demand in Tasmania, as many hives are taken to areas of native forest to harvest leatherwood honey, for which there is a lucrative international demand.

It has been interesting to follow the growth of the berry industry (strawberries, black berries, raspberries) in Tasmania. The farm gate value of production has grown from almost nothing about six years ago, to several hundred million, with a small number of growers (less than 20). The growth has occurred with very little Government assistance or direction; instead growth has been from the interest and investment by several large companies (including Driscolls). With new varieties and best practice technology (including poly-tunnels and growing plants on tables or in pots), reliable yields are being obtained. Most production is for Australian consumption, with increasing consumption on a per-capita basis. What is very interesting is the very low mark-up between what the grower receives and the price in the supermarket; only a 10% difference between the grower's price and the supermarket price has been observed. Growth is continuing.

Environmental

Loss of nutrients from farms is an increasing problem.

Recent research has identified a seaweed (*Asparagopsis* spp.) as having methanogenic properties, so it is being trialled in dairy and sheep production systems desiring to be carbon neutral to meet current niche markets. If this research is successful, it will help the Australian agricultural sector meet the community expectations around climate change mitigation.

Development of regional irrigation systems remains a priority for the Tasmanian government, given Tasmania receives about 12% of the nation's rainfall, although dominantly on the west coast away from the main agriculture regions. The long-term environmental consequences of adding irrigation to some soils and ecological systems, is still uncertain, therefore requiring careful monitoring and management.



Current Research Issues

A new agricultural hub will be developed in Launceston as a commitment by the State Liberal Government.

The Federal Government is supporting investment in new agricultural technologies, the adoption of which are expected to help drive quantum changes in production.

Soil science has been prioritised as an investment priority for the Federal Government.

The Federal Government is investing in drought response hubs, mostly associated with a university in each state. The aim of the hubs is to increase drought preparedness, so that the current emphasis on reactive response strategies (such as interest rate and freight subsidies) is reduced.

Both Federal and State governments have spent millions of dollars in the past on training programmes, which supposedly enable Australian farmers to be better prepared to manage droughts. However, there is little evidence of any widespread practice change in this regard, with governments under pressure from their opposition parties, continuing to resort to knee-jerk reactions when major droughts occur.

The best preparation which farmers can do to manage droughts, is to have a profitable business based on a sustainable production system compatible with the environment in which they operate.

Any other comments

Resistance to SDHI fungicides similar to that in Europe is emerging in Australia. Snails and mice have been a recurring pest in South Australia and the spread of the recently introduced Russian Peach Aphids is concerning.

Robert Patterson - New South Wales, Robin Thompson & David Armstrong - Tasmania and John Noonan – Western Australia – May 2021

Brazil

Weather

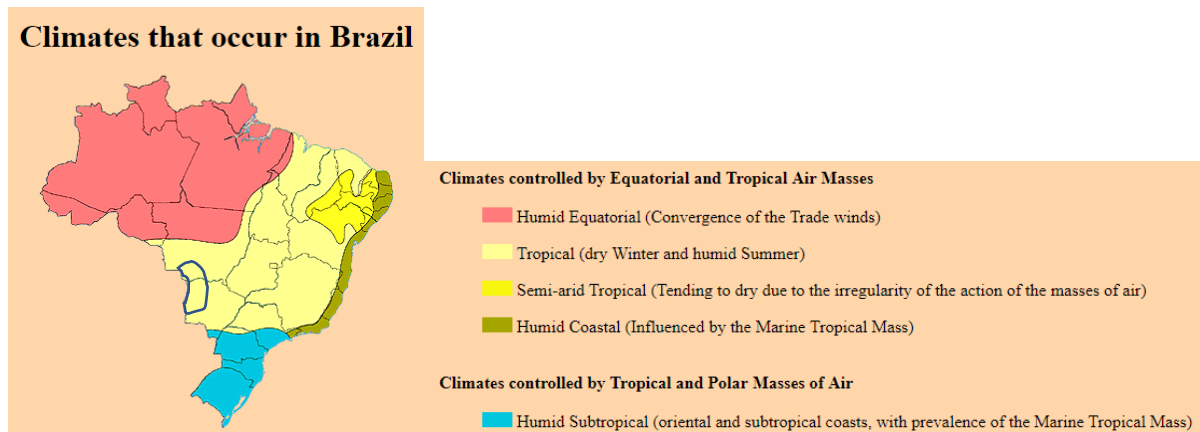


Figure 1. Climates occurring in Brazil.

It is challenging to talk about weather in Brazil, given its continental dimensions. There is a great climate variability, spanning from Equatorial to Subtropical climate (Fig. 1). In general, 2020 was a challenging year due to weather conditions brought by La Niña. Severe droughts occurred in the Central areas and the Southeast of Brazil, where most agricultural produce is concentrated, with some significant rainfall only in October and November. According to NASA, this was the second worst drought of this century in South America. One of the consequences was some of the major bushfires ever seen in the Pantanal biome (blue line within the Tropical region, Fig 1) and the Amazon. Another consequence was soybean has been sown later than usual which compromised part of the sowing of the following crop (second harvest), usually corn. The delay was also corroborated by the excess of rain at the soybean harvest, pushing the corn sowing even further, sometimes out of the recommended window.

Agriculture Economic Climate

1. In 2020, Brazil's GDP declined 4.1% in comparison to 2019, unemployment rates reached 14% and inflation peaked at 4.52%, the highest rate since 2016.
2. The political environment has been quite turbulent given growing tensions between right and left supporters, particularly around Brazil's president position regarding the pandemic. The president minimizes the situation, undermines governors' efforts to control and contain the cases by imposing restrictions, and disqualifies scientific evidence on the use of masks and social distancing. This resulted in delays and misconduct of the national efforts to start the vaccination campaign, which is the most effective way to protect people and allow a safe return to work. Left parties recently put a petition to investigate the federal government and the ministry of health regarding their responsibilities on the deaths and the Oxygen crisis in Manaus/AM, leading the Senate to launch a Parliamentary Inquiry Commission (called CPI). Under these unfavourable circumstances, in addition



to the pandemic itself, important reforms for Brazil have been postponed, such as the administrative (improved governance and reduction of benefits and privileges of government personnel) and the tax reform. Both are considered key to promote the much-needed structural changes to allow Brazil to grow and develop, with more social justice.

3. To sponsor an Emergency Aid Programme for those highly impacted by the pandemic, the 2021 Federal budget had severe cuts for many areas such as Science and Technology, Education, Health, Environment among others. One of the possibly affected areas is the “Plano Safra” (Season Plan), the main public policy to finance small and medium size farmers. Last year, the Plan made available BRL 236 billion (~ USD 44 billion) to cover both farming operating costs and investments, support to commercialization and harvest insurance, with interest rates varying from 2.75 to 7% a year, depending on the activity, scale and subsector. This year, the Plan is still under negotiation, but it is unlikely to be improved, given the economic situation and the inflation increase.

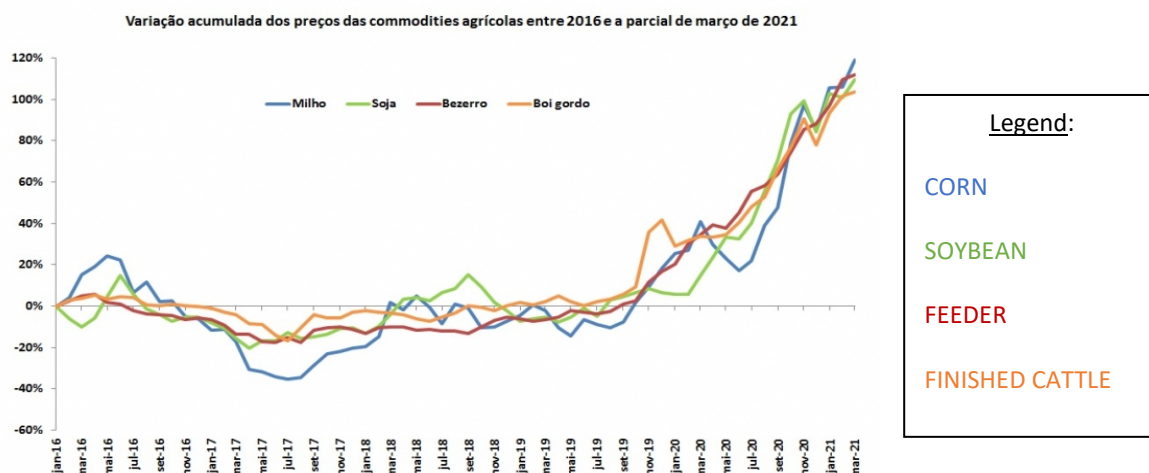
4. The Brazilian currency, in 2020, continued to devalue (1 USD = 5,15 BRL, 2020 average), boosting agricultural exports. In turn, production costs have been increasing for the same reason resulting in higher prices for imported inputs, such as fertilizers and machinery. This dichotomy imposes additional challenges for domestic suppliers of food and other agricultural produce, since Brazilian internal demand has been limited by the large numbers of unemployed and sub-employed people, and families who had their income reduced because of the pandemic. The government Emergency Aid Programme helped to buffer this negative impact on domestic demand by giving USD 112 per eligible person over 9 months, in 2020. In 2021, the amount was reduced to USD 46,6 per person and for four months only, along with other restrictions that limited significantly the eligibility for the Aid. It is unlikely that this will be enough to maintain the domestic demand stable, particularly, considering the low pace of vaccination, which would be the most effective way of recouping the economy, and an eminent third wave of Covid transmission.

5. Brazilian agricultural exports are booming, with an increase of 10% in volume and 4% in revenue, in comparison to 2019, reaching 101 billion dollars. The Brazilian Minister of Agriculture, Mrs. Tereza Cristina, has been devoted to opening new markets for the Brazilian Agribusiness. It was 34 new international markets in 2019, 74 in 2020 and another 26 in the first four months of 2021.

6. China remained Brazilian main food importer in 2020, led by the meat sector. The outbreak of African swine pest in China increased the country’s demand both for meats and grains. The latter to help rebuild their own herd.

Livestock

Since 2019, when China became an aggressive meat and feedstuff importer, the Brazilian market for such products registered incredibly increasing prices (Fig. 2), reaching some of the highest levels of the last decade.



Source: Data from Cepea, available at: <http://tocantinsrural.com.br/noticia/precos-das-commodities-agricolas-tem-novo-recorde-em-marco>

Figure 2 – Accumulated variation in main agricultural commodities prices, from January 2016 to March 2021.

Beef

a. After two years of herd reduction, farmers retained beef cows, in 2020, due to increased beef prices, and the herd reached 215 million head. The historical database from CEPEA, Center for Advanced Studies on Applied Economics, registered some of the highest beef prices of the entire time series. Average prices for finished cattle and feeders¹ were US\$ 1.49/kg LW and US\$ 2.02/kg LW, in 2020, with its maximum nominal price of US\$ 1.83/kg LW and US\$ 2.87/kg LW, respectively. Just for reference, in the last IFMA Country report we mentioned a historical price at US\$ 1.41/kg LW for finished cattle. Despite this positive scenario, finishing farmers are paying much higher for feeders and feedstuff, which means they still need to control financial risks. Cattle prices are likely to remain high and stable, given the strong international demand and the low cattle supply (abattoirs face 45% of idle capacity, with some closing doors).

b. According to Agri Benchmark, an international network for comparison of beef production systems and costs, Brazilian typical cow-calf and fattening farms continued competitive in relation to other countries. Data gathered and analysed by CEPEA for Agri Benchmark, in 2019, found typical cow-calf farms in important Brazilian regions had costs ranging from 0.98 to 2.16 USD/kg LW (highest costs² found in European farms). Typical fattening farms had costs ranging from 2.11 and 7.12 USD/kg LW; the difference being explained by the location and the farming system. In comparison to average prices, just shown before, it indicates that farmers operating on the high end of costs are either taking a loss or might be benefiting from particular niche market, getting premium prices.

¹ weaned calves, usually with 10 months of age, for rearing and fattening.

² Exchange rate in 2019 was 1 USD:5.46 BRL

c. Domestic beef consumption dropped 5%, in 2020, to its lowest level since 1996, reaching 29.3 kg/inhabitant. Unemployment, average income reduction and record beef prices for consumers explain this result. There has been a consumers' shift towards pork, chicken and eggs.

Pigs

a. Since 2019, demand for pork is high, nationally and internationally. In total, Brazil exported one million ton of pork and made 2.27 billion in revenue, 36% and 42% higher, respectively, compared to 2019. The outbreak of African Swine Fever in Asia continues to limit China rebuild of the herd, and therefore, remains as an important limitation for supplying their vast national market. Brazil is benefitting from this situation and exporting records of pork meat to China.

b. Nationally, the demand for pork increased as a substitute meat for beef, whose prices are unaffordable for large part of the Brazilians at the moment. However, the pork prices also experienced rises up to 50%, in some regions, due to the increase in feed costs and the higher exports level. Despite cost increases, discussed below, farmers enjoyed some real profits last year.

c. Regarding production costs, Embrapa says they increased 38%, from USD 0.76/kg to USD 1.04/kg, between October 2019 and October 2020. There have been some significant increases in soybean and corn prices, main components of pigs concentrate, not to mention pharmaceuticals and vaccines, mostly imported. According to a time series prepared by CEPEA, last week a pig farmer would only be able to buy 3.28 kg of corn with one kg of pork, the worst price ratio since 2004, when the series started.

Poultry

Like the pork sector, the poultry sector, in general, faced challenges regarding production costs. The record prices registered for soybeans and corn (110% and 99% increase, respectively), in 2020, led farmers to adjust their production plans to remain financially safe.

Layers

The egg market has had ups and downs. The eggs exports dropped almost 49% in volume, compared to 2019, and 21% in revenue. Production costs increased significantly, but the domestic demand has not been strong and stocks are increasing. Some farmers are selling part of the hens to reduce maintenance costs.

Meat

In 2020, Brazil produced 13.8 million ton, of which 4.2 million ton were exported. The volume was similar, but revenues (USD 6.1 bln) were down 12.5%, compared to 2019. Domestically, the consumption per capita increased from 42.8 to 45.3 kg/inhabitant/year, due to the lower price of chicken compared to beef.

Prospects are similar for 2021 performance.



Dairy sector

a. Milk prices went up 40% at farm gate and 42% for consumers. High prices were sustained because of climatic conditions, increase in production costs and a significant reduction in the stocks of dairy products. Additionally, milk imports were tight due to unfavourable currency exchange rates, which put more pressure on the demand side, and, therefore, on prices.

b. According to 100 top milk farms, monitored since 2001, including some corporate farms, in 2020 the milk production increased over 10%, even with higher production costs. The use of technologies explains this result. 77% declared to have higher profits in 2020 than in 2019.

Arable

a. Conab, the National Food Supply Company, estimates the total crop production of season 2020/21 will be 271 million tonnes, 5,7% higher than the previous season. The second harvest is still underway, particularly corn, given the delays in sowing. Losses of 2 million tonnes are expected for this crop because of weather conditions (out of the recommended planting window), compared to last year's second harvest. Nonetheless, farmers took a bet as prices are peaking and could compensate part of the production loss, even when uncovered by insurance³.

b. The total area for crop production grew 4.1% (about 2.7 mln ha), mostly over degraded pastureland, reaching 69 million hectares. Soybean, alone, was sown on 38,5 mln ha and is expected to produce another record: 135.4 million tonnes. Corn, including first and second harvest (this one after soybean harvest), reached almost 20 million ha. Corn second harvest (15 mln ha) surpassed the first harvest and has now consolidated this type of crop rotation (modal crop farming). Production is estimated at 106 million tonnes. Farmers are obtaining some real gains in terms of profitability.

c. Rice and beans are Brazilians' favourite meal and whatever happens with these products affects directly families' diets. In 2020, Brazil experienced very high prices for rice and beans. The impact was so important for consumers that Brazil suspended temporarily import taxes on rice and, thus, helped to reduce domestic prices. This season, rice production is estimated to increase about 4%. On the contrary, beans production is expected to reduce 3.6%. Farmers enjoyed positive returns, but the increased price for consumers, while their income shrunk, lowered consumption to similar levels of 2018.

Horticulture

Brazil is one of the major horticulture producers with annual average production of 20 million tons almost fully consumed domestically. The per capita consumption of fruits and vegetables reduced in the last year as a result of a decline in the population's income, mobility and change in consumption habits. Higher prices for these products also affected demand. For farmers, cost control has been challenging with increasing input prices, due to unfavourable exchange rates to import such inputs.

³ Harvest insurance is only granted for farmers' following the recommended cultivation window for each crop, given the additional risks involved in not doing so.



The prolonged effect of the pandemic and the reduction of the Emergency Aid in 2021 might continue to impact demand, with part of the population shifting to highly processed food.

Soft Fruit

According to CEPEA, Brazil shipped 670.1 thousand tons of Frozen Concentrate Orange Juice (FCOJ), between July 2020 and February 2021, which represented a reduction of 17% compared to last season. In turn, revenue reduced 27%, totalling 985 million USD. The European Union, our main importer, reduced 22% in volume (and 32% in revenue) of their purchases of Brazilian juice as an effect of the pandemic. The reopening of businesses in EU is increasing the demand and boosted shipments from April/2021 on.

Regarding fresh fruits, including banana, apple, pawpaw, melon, watermelon, grape, mangoes, lime and lemon, total exports amounted 946,53 million tonnes, with revenues of US\$ 760,89 million, which represented 5.1% and 5% increase, respectively, compared to 2019.

The main fruits consumed by Brazilian are banana, orange, watermelon and apple. Apple farmers are facing low prices for the fruit given the low demand, particularly from public schools and industrial kitchens which have been closed for most of 2020.

Vegetables

Potato is one of the main vegetables consumed in Brazil. The low margins and production problems, in 2020 season, led farmers to reduce the areas devoted to this crop by 1.2%. Demand is low and so are the prices, which, at least, covers the production costs. Carrot farmers faced strong rain and hot weather during the summer season, which reduced the productivity and the carrot supply. Prices went up, ensuring farmers' profitability, despite the low domestic demand given the pandemic. There was a 5.3% reduction in the area devoted to tomato, particularly between March and June. Profitability was negative only recouping in August, when prices started to pick up again.

Environmental

a. The Plan for Low Carbon Agriculture, so-called ABC Plan, is a public policy established in 2009 as part of Brazil's commitment to the COP-15 to reduce GHG emissions. The Plan financially supports farmers willing to undertake integrated farming systems (combinations of crops, livestock and forestry), use no-tillage agriculture, invest in planted forests and recover degraded pasture. Between 2010 and 2018, pastureland has been relatively stable, at around 170 million hectares, but with some major improvement in quality. Close to 27 million hectares have been recuperated within the ABC Plan, with severely degraded pasture reducing from 34% to 25%, while areas with no signs of degradation doubled. The success of the ABC Plan rendered a new round of public investments, under the title of ABC+ Plan, which has been recently launched.

b. In 2012, the Rural Environmental Registry – CAR, was created by Law No. 12,651/ 2012, within the scope of the National Environment Information System - SINIMA, and regulated by Normative Instruction MMA No. 2, of May 5, 2014. CAR is an electronic public register of scope national, mandatory for all rural properties, in order to integrate the environmental information of rural

properties and possessions related to Permanent Preservation Areas - APP, of restricted use, Legal Reserve, forest remnants and other forms of native vegetation, and the consolidated areas, composing a database for control, monitoring, environmental and economic planning and combating deforestation.

Registration with the CAR is the first step towards obtaining the environmental regularity of the property, and includes: data from the farmer or person directly responsible for the farm; ownership documents; and georeferenced information on the property's perimeter, areas of social interest and areas of public utility, with information on the location of the remnants of native vegetation, Permanent Preservation Areas, Restricted Use areas, consolidated areas and Legal Reserves.

December 2020 was the deadline for farmers to register and, therefore, this became a hot topic in 2019. Unregistered farmers or farmers whose CAR have been cancelled will have no access to credit, tax reliefs, authorization for vegetation suppression of any sort, amongst other restrictions. Given it is self-declaratory, land owners can be prosecuted if false or misleading information is provided.

Current Research Issues

a. Low carbon agriculture is a hot topic at the moment. Studies are advancing and several Carbon-related protocols were launched (e.g. Carbon Neutral Brazilian Beef; Low Carbon Brazilian Beef) or are in the pipeline (e.g. Low carbon soy; Low carbon milk etc.). In May 2021, Brazil held the 2nd World Congress on Integrated Crop-Livestock and Forestry, and from what was discussed amongst many worldwide renowned researchers, it was clear that ICLF will be one of the major strategies for Brazil to cope. This research line will be further supported.

b. Automation and artificial intelligence are making grounds for several start-ups to develop technologies to aid farmers in precision agriculture. Many innovation hubs have been created, bringing together next-gens professionals, researchers and fintechs (financing agencies). This is a promising prospect for hands-on technological development.

c. The Ministry of Agriculture is stimulating further developments of the Brazilian bioeconomy. The Bio-input program, for example, was launched aiming to “sustainably explore the potential of Brazilian biodiversity in order to reduce farmers’ dependence on imported inputs and expand supply of raw materials for the sector” (MAPA). Bio-input includes everything from “inoculants, plant growth promoters, biofertilizers, ingredients for plant and animal nutrition, plant extracts, pest, parasites and diseases control agents. These are made from beneficial microorganisms such as fungi; bacteria and mites, reaching herbal compounds or technologies that have biological agents in their composition, whether for plants and animals, as well as for post-harvest and food processing”.

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Mariana de Aragao Pereira – May 2021

Canada

Weather

The start of the growing season has been drier and cooler than normal across much of Canada. While this has made for favourable seeding conditions, continued dryness will pose a considerable threat to yields and profitability. Recent rains across Saskatchewan have somewhat lifted spirits, but soil moisture is well below average, so more rain is needed. While prairie winters can be quite variable and temperamental, weather for the spring calving season was on average, pretty uneventful. This is a good thing for livestock producers who in the past have had to deal with late blizzards during the peak of calving season.

In Saskatchewan, temperatures have been variable, but are currently forecasted to begin to warm up to normal.

Figure 1: Percent of Average Precipitation (Source: Agriculture and Agri-Food Canada)

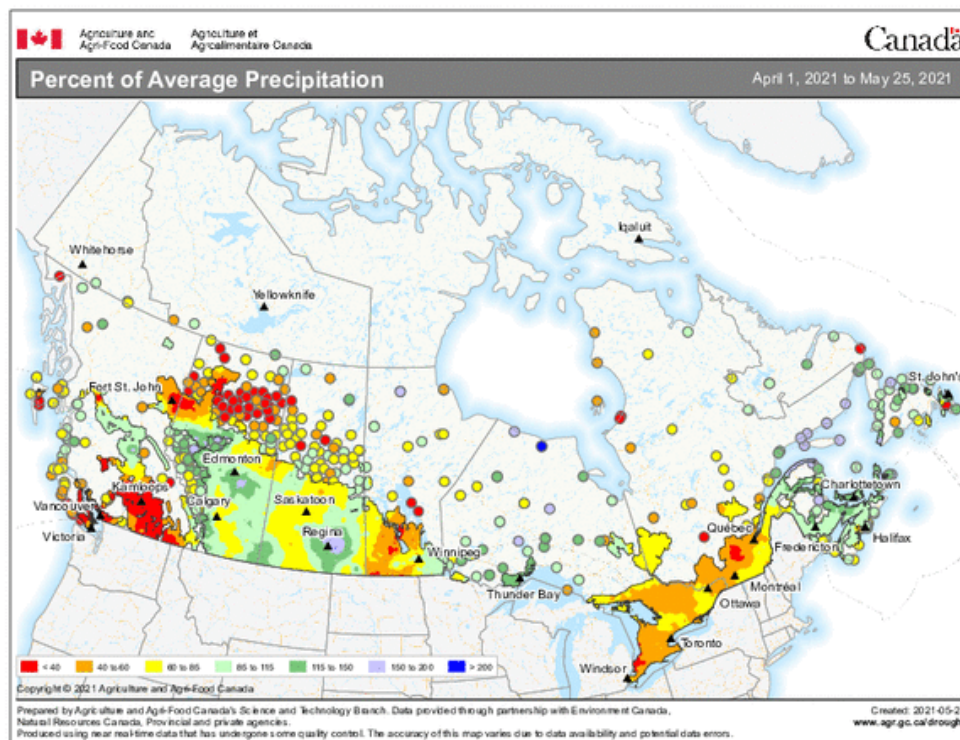
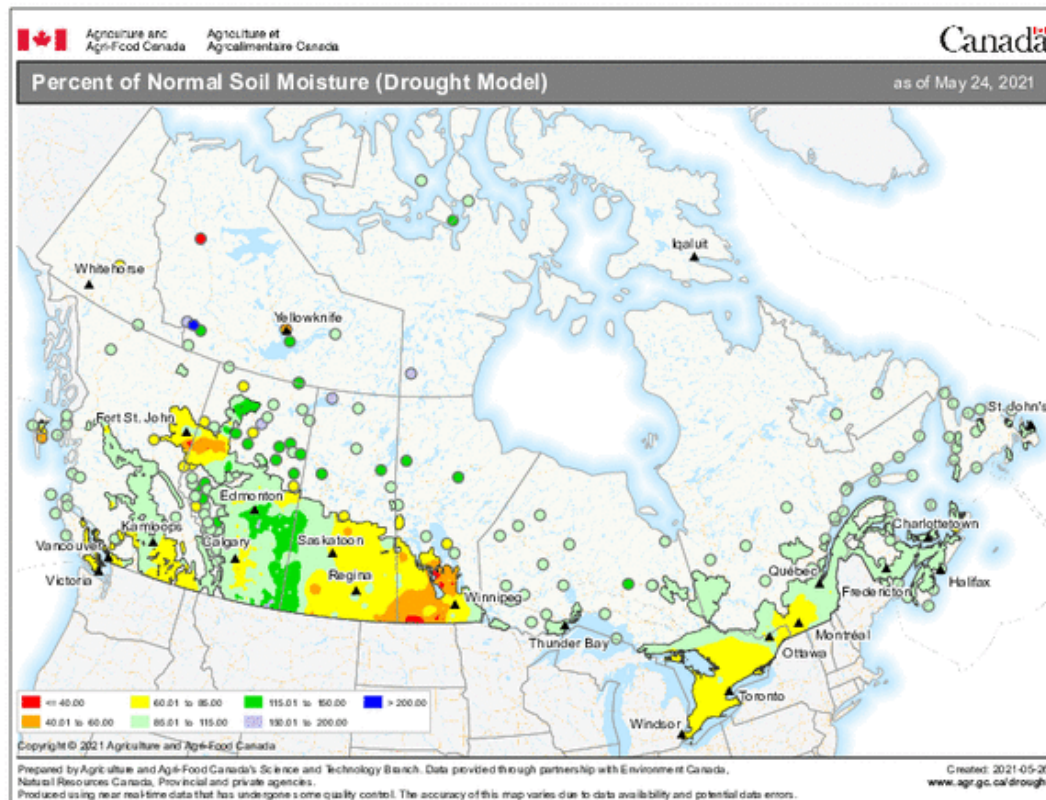


Figure 2: Percent of Normal Soil Moisture (Source: Agriculture and Agri-Food Canada)



Agricultural Economic Climate

1. In a 6-3 decision, the Supreme Court of Canada ruled that the government's 2018 Greenhouse Gas Pollution Pricing Act was constitutional. The legality of the act was being challenged by Alberta, Ontario, and Saskatchewan. Farm fuel has been exempt from the tax, but natural gas used to dry grain was not. A private member's bill (Bill C-206) which would include natural gas used to dry grain has passed its second reading in the House of Commons.
2. Recent investments in canola crush capacity in Saskatchewan are buoying hopes for continued high prices for the crop. Four new major crushing plants have been announced since the beginning of the year. Two plants will be built in Regina (Viterra, Cargill), with Richardson announcing a major expansion to their Yorkton plant. Most recently, Ceres Global Ag announced plans for a 1.1 million tonne plant in Northgate, SK, located near the border between Saskatchewan and North Dakota.
3. Farmland values continue to rise as indicated by the 2020 Farmland Values Report released by FCC. Farmland in Canada was up by 5.4%, with Alberta (6%) and Saskatchewan (5.4%) leading the way. This is up from a 5.2% increase observed in 2019.



Livestock

Dairy Sector

- The big story in the livestock industry for much of late 2020 and early 2021 was 'buttergate'. It seemed to many people that their butter was not as soft as they remembered, even if it was left on the counter. This led to some investigations on what might be the cause. Some believe it is the inclusion of palm oil in the ration of dairy cows, which affects the fat profile of the milk used to make butter.
- Milk production in Canada was up by 1.3 million hectoliters in 2020.
- There were 3000 more dairy cows in Canada in 2020 (compared to 2019), while there were 300 fewer farms shipping milk during the same time period.

Beef

- Total cattle and calves Cattle numbers on January 1, 2021 were down 1% from 2020.
- The number of beef heifers was up 4%, and the number of bulls increased by 5%.
- Feed prices are approximately 40% higher than their five-year averages.
- Fed cattle prices in both Alberta and Ontario are approximately 7% below five-year averages.
- Calf prices are modestly higher than the five-year average (2%).

Pigs

- Hog producers are expected to see increased profits per hog over the next 12 months.
- Demand for Canadian pork is being driven by continued pressure of African Swine Fever in Asia and the gradual reopening of the restaurant supply chain in North America.

Sheep

- Lamb prices were high for most producers in Canada during 2020-2021.
- The price of feeder lambs increased by 38% to \$3.60 per lb from October 2020 to February 2021.

Poultry

- Poultry plants continue to deal with Covid-19 outbreaks which force temporary shutdowns.
- Vaccination programs for processing workers have been implemented in some poultry plants in Alberta.
- The Poultry and Egg On-Farm Investment Program, announced by the federal government in response to increased foreign access to the Canadian market (which operates under a supply management program) will allow producers to access federal money to use for on-farm investments.



Arable

- One of the benefits of a dry spring is that producers have been able to make tremendous progress in seeding.

Province	Percentage Seeded	Five Year Average (%)
Saskatchewan	74	48
Alberta	71	56
Manitoba	91	88

- In Ontario, the corn crop is mostly in the ground and soybeans are close behind.
- Perhaps taking advantage of high prices, canola acres are expected to increase by 3.6% in 2021 to 21.5 million acres. If this holds, it will be the biggest crop (in acres) since 2018.
- Wheat acres are projected to be down nearly 7% to 23.5 million acres.
- Barley acres in Saskatchewan are projected to increase by nearly 25% to 3.9 million acres.

Horticulture

Soft fruit

- Weather for the B.C. cherry crop was favourable for pollination and cell division. Temps were ideal and there was little rain and wind.
- The 2020 apple crop was down 20% in B.C. and 6% in Ontario compared to the prior year.
- Vegetables
 - Some tomato producers are trialing LED lighting in their greenhouses.
 - Wholesale vegetable prices are beginning to come down from recent highs.

Environmental

- The biggest news in the environmental area would likely be the Supreme Court of Canada ruling on the constitutionality of the federal carbon tax. The tax is currently \$30 per tonne of CO₂ equivalent, with yearly escalators which will eventually bring it to \$170 per tonne in 2030.
- Feral pigs continue to be an issue across much of Canada.
- A \$4 Billion (CAD) irrigation project to expand irrigation canals from Lake Diefenbaker in Saskatchewan has been proposed. Research on the benefits and environmental impacts of what would be the largest infrastructure project in the history of Saskatchewan is currently being conducted.

Government and Policy:

- COVID-19 has resulted in several government support programs including interest-free loans, wage and rent subsidies for businesses, and funding for personal protective



equipment. The Canadian government is putting an emphasis on the health and safety of temporary foreign workers and helping farmers adhere to a COVID-safe working environment.

- The Canadian government is also looking at a revamp of the temporary foreign workers program including a streamlined path to permanent residency
- We continue to operate under the new 5-year agricultural policy framework – the Canadian Agricultural Partnership – which has committed \$3 billion until March 2023.
 - The program is a 60/40 cost-share between the Federal, provincial and territorial governments
 - Federal programs include AgriInnovate, AgriScience, AgriMarketing, AgriCompetitiveness, AgriDiversity, AgriRisk and AgriAssurance to stimulate growth and development for agriculture and agri-food, and the Business Risk Management (BRM) suite for crisis response including AgriStability, AgriInvest and AgriInsurance
 - The AgriStability program recently received a long-awaited overhaul, removing the reference margin limit for triggering payouts to farmers. It is estimated this change will increase the overall payout to farmers by approximately \$95 million nationally.
 - Other improvements to BRM programs were announced in 2020 as a response to COVID-19. These changes extended enrollment deadlines and boosted interim payments in most jurisdictions from 50 to 75%. The federal government, along with the participation of several provinces, also committed up to \$125 million to AgriRecovery to help beef, pork, and other producers cover up to 90% of extraordinary costs related to the pandemic.
 - The federal government has also issued support programming to our supply managed sectors (mainly dairy) to compensate for increased exports under international trade agreements like CETA
- While the Federal government continues to show strong support for fostering farm business skills development, Provinces and Territories continue to decrease their extension services, with some of the largest provinces closing their farm business departments and support programs altogether. Unfortunately, industry organizations continue to prioritize production research (yield, genetics, etc.) over investing in business skills development.
- There has been renewed interest in and work on the National Food Policy, however the previous 4th pillar - "investments to increase the agriculture and food sector's capacity to produce high-quality food" seems to have disappeared. The new priority pillars are:
 - Helping Canadian communities access healthy food;
 - Making Canadian food the top choice at home and abroad;
 - Supporting food security in Northern and Indigenous communities
 - Reducing food waste.



Equality, Diversity and Inclusion (EDI) in Agriculture:

- There is a notable increase in interest from the agricultural sector concerning equality, diversity and inclusion both on-farm and in organizational programming and leadership. Resources are being developed for industry organizations to support EDI.
- The Federal government has recently started working with Farm Women groups from across Canada to better understand and support their needs on a national scale.
- Farm Management Canada is undertaking a national study to better understand the experience of women on the farm and learn how we can better support their unique needs.

Mental Health and Farm Management:

- Mental health continues to be a priority in the agricultural space with organizations offering mental health first aid courses for farmers and other industry stakeholders.
- Farm Management Canada recently completed a national study exploring the connection between mental health and farm business management. The report is titled Healthy Minds, Healthy Farms and has received much media attention and opportunities to present to various agricultural audiences. Results show that business practices, especially planning, contribute to positive mental health and peace of mind.

Farm Business Management:

- We continue to see an emphasis on supporting production risk (caused by weather and commodity prices), and a lack of attention to a comprehensive approach to managing risk through farm business management practices including risk assessment and planning.
- Farm Credit Canada recently surveyed 2000 producers and found that 87% of farm operations in Canada have implemented strategies to mitigate the risks they reported as 'concerning', however, that covers just 51% of the risks listed in the survey.
- We have recently completed a 5-year update to our Dollars and Sense research, taking a look at the change in the adoption of farm business management practices over the past 5 years as well as barriers and drivers to adoption. To our surprise, the adoption of practices has not increased, and in fact, there has been a notable decrease. While the ability to read and use Financial Statements continues to have the highest rate of adoption at 63%, this has declined significantly since 2015 (73%), and having a formal plan for human resource management continues to have the lowest adoption, now at 12% (compared to 20% in 2015).
- Study findings reveal the greatest barriers to implementing farm business practices are:
 - I. Farmers feel the farm is succeeding without them
 - II. Aging/retiring farmers feel it's too late to benefit
 - III. Farmers don't have the time
 - IV. Farmers don't know where to start
 - V. Getting others on board with adopting more formal business practices



- Lack of communication skills was cited as the greatest barrier to engaging others in farm business management activities
- The greatest drivers of implementing farm business practices (by those using them are):
 - I. To increase profitability
 - II. To manage risk
 - III. To prepare for farm transition/retirement
 - IV. To reduce stress and anxiety and improve quality of life
 - V. To improve our family/farm team harmony
- Farmers who regularly work with farm advisors, young farmers, female farm operators, farmers in Quebec, horticultural operations and larger farms are more likely to implement farm business management practices. With the exception of larger farms, these farmers are also most likely to access support programs and services offered by the Ministries of Agriculture.
- We have heard anecdotal evidence from farmers and farm advisors that the pandemic has had a positive effect on the adoption of farm business practices. Advisors are reporting a surge in request for support for transition planning, while farmers are saying that the cancellation or move to online industry events and meetings has freed up time to work on their business practices like planning and budgeting.
- Agricultural media outlets have also been publishing a lot of content related to COVID-19 and managing the farm, offering insights from farm advisors and farmers on how to remain resilient and seize new opportunities.

Other

- Farm Management Canada moved all its learning opportunities online for 2020 and will continue to do so for 2021. We are seeing a huge upswing in participation, from 300 participants at our national Conference to over 1100. Our risk management training sessions have also been oversubscribed.
- Farm Management Canada has recently created new resources to support farm business management including a national resource portal at www.takeanewapproach.ca, a farm transition toolkit at www.farmtransitionguide.ca, an emergency preparedness portal at www.agriresponse.ca and a revised and digitized edition of Building an Effective Farm Management System in partnership with Dick Wittman at www.wittmanconsulting.com.

Heather Watson and Eric Micheels – May 2021

Denmark

Weather conditions

The crop yields in 2020 were around the same level as in 2019, which is higher than the average for the last 10 years. Spring barley is again the largest crop as the area has increased and the area with winter wheat was reduced partly due to requirements regarding catch crops, which have to be followed by a spring crop. The organic areas have now increased to 11% of the total area. The agricultural area is 60% of the total area, which is the largest in the Nordic and Baltic countries

Agriculture Economic Climate

The wheat prices have been around €165-170/ton and the barley price is around 154 €/ton last year, but the barley price has increased since harvest. After the highest price every the prices for piglets exported came down to the lowest for many years from €94/piglet to €27/piglet in the spring of 2020. The reason was mainly the Corona virus in general (lower consumption) and the large Corona problems at German Slaughter houses were many employees caught the virus. The export to mainly Germany is unchanged, around 14 million piglets per year. The pork prices dropped to €1.6/kg in May and further down to €1.3/kg at the beginning of 2021, but is now at €1.4/kg.

The milk price is still around 33 cent per kg, and the organic milk is at 43 cent per kg for the best quality. The price has increased a little in the spring 2021 partly due to larger demand from China. Another reason is that the Arla Farm requirement which gave a bonus before is now obligatory and this includes both not using GM foods and having a climate check of the farm. The organic milk is now 12% of the total production, whilst over 30% of the milk bought in supermarkets is organic. Arla income remains as expected although there have been many “Buy cheap Lurpak butter” campaigns in the supermarkets, perhaps also because the products have not been sold to restaurants etc.

The overall average farm income was good in 2019 and even higher in 2020. Behind the 2020 results is a small decrease for arable farms, but an increase in income for dairy and pig farms compared to 2019 although the low prices on piglets have had an impact at the end of 2020 and the beginning of 2021. The Covid 19 crisis had a very serious impact on the mink industry as it was decided to close down the whole industry. The reason was that the Covid-19 spread to the mink and then from mink to people and it was not possible to contain the disease, meaning that covid19 was suddenly found in many mink farms in Jutland. The spread might have been airborne and the mink seemed very susceptible to the virus. Furthermore, it was feared that the new mutant passed on from the mink could perhaps mean that the vaccines would not be effective. The culling of 17 million mink and closing a world leading industry in the autumn 2020, was a hard blow to both farmers and the industry linked to the sector. The mink export was almost €2 billion in 2013, but this had come down to €1 billion in 2019. The cost in terms of compensation to the farmers was around €2.2 billion.



Environmental

The Danish farmers were asked to increase the area with additional catch crops from 111,000 ha to 320,000 ha (12% of the total agricultural area). Farmers had other options (e.g. lower N-application or set a side). The catch crops are used as the exchange rate in the scheme and farmers have done very well as the level required has now been reached. The subsidy given is around 67 €/ha of catch crop. In the case farmers do not enter enough area under the scheme, compulsory measures without subsidy will be implemented so hopefully only the carrot will be used this time. The political focus is now on making a plan covering both reductions regarding greenhouse gas emissions and nitrogen from the agricultural sector looking for measures which give synergies. A key measure is taking organogenic (peat) areas out of production as a large share of the greenhouse gas emissions from agriculture comes from this area.

Current Research Issues

Following on from the aim of reducing the CO₂ emissions a lot of focus has been on research related to analyse technologies, which can help to reduce CO₂ emissions from agriculture. One of the technologies considered is the Skyclean approach where straw and deep bedding is converted to biochar (binding the carbon via pyrolysis) and biofuels (as petrol for planes).

Other issues

The covid 19 has also affected Denmark. Number of cases and deaths in the population has been in the lower end in Europe, but higher than Norway and Finland. Denmark is coming back to near normal from the end of May 2021. The import and export of food has worked very well although there has been impacts as described above. An extensive help package has ensured that unemployment has not increased significantly and the liquidity burden is not too high on companies although it will have a negative impact for some companies.

Another issue is the trading issues linked to Brexit. In 2019, the total export/import to the UK was €15 billion/ €12 billion (4th largest export market). In general, export and imports have fallen by 25-30% in 2020 compared to 2019 due to covid19 and pre-Brexit issues. From the beginning of 2021 export to and import from the UK has been more difficult as the UK is out of EU and the customs union and so more paperwork is required. The Danish Fishing industry was directly hit as the fishing in UK waters was reduced. On the other hand, Scottish fishermen now landing fish in Denmark to sell at a higher price and because the export through the UK takes too long time. Overviews show that the total Danish exports to the UK in the first two months of 2021 are almost the same as at the end of 2020, whereas the import from the UK is down by 40%. It is perceived that the Danish agricultural sector can find other export markets if needed.

Brian H. Jacobsen – May 2021

Japan

Weather

After experiencing mild weather in the earlier months of 2019, a long spell of rain occurred in June, extreme heat in July and multiple typhoons. In particular, the typhoon No.15 landed in the Tokyo metropolitan area with disastrous wind in September and No.19 hit most of the country with disastrous rain in October. By region, the northern island (i.e. Hokkaido) enjoyed good weather all year round while some other parts of the country faced unseasonable weather during summer and autumn.

Current economic situation in agriculture

The livestock sector in Japan constitutes 36% of gross agricultural output, vegetables 24% and rice 20%. Gross agricultural output increased since 2010 (see Figure 1); however, gross agricultural output in 2019 slightly decreased to 8.9 trillion yen (approximately 82 billion USD), mainly due to a drop in vegetable prices and egg production. Agricultural income produced also decreased by 5% to 3.3 trillion yen (approximately 30 billion USD) in 2019. Annual sales per farm business entity have remained at the same level since 2017. Annual profit per farm business entity in 2019 slightly decreased to 1.94 million yen (17,842 USD) due to an increase in farming costs.

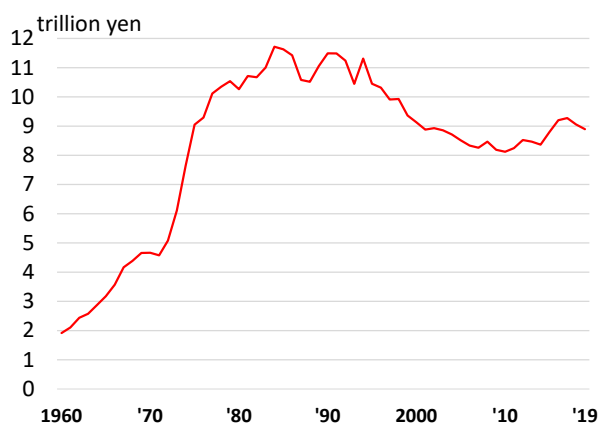


Figure 1. Gross agricultural output in Japan
Source: MAFF, Statistics of agricultural output price

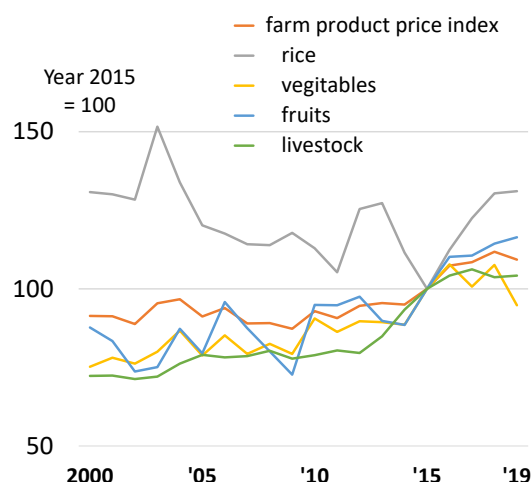


Figure 2. Producer price index in Japan
Source: MAFF, Statistics of agricultural price

This following depends largely on *Information Strategy Report No. 47* published in December 2020 by Japan Finance Corporation and summarises the financial performances of selected farms in 2019.

Livestock

Dairy sector

- The price of milk for the table increased by 2%.
- Herd sizes and milk produced per cow fed on better fodder grew in Hokkaido, while the number of dairy farms decreased in other areas of the country.
- Annual sales per dairy farm increased due to a rise in milk price and herd size.
- Annual profit per dairy farm remained consistent due to the high cost of depreciation.

Beef

Market price fell by 3%–4% due to previous high price and lowered demand from the food service industry in response to COVID-19.

- The herd number of non-Wagyu beef sold decreased, while the herd number of Wagyu beef sold increased.
- Cost of calves purchased fell.
- Annual sales per beef farm dropped due to reduced beef price.

Pigs

- Market price rose slightly against a backdrop of unstable pork production due to CSF (classical swine fever).
- The Herd number of pigs sold remained consistent due to diseases.
- Imported pork increased due to effective FTAs (Free Trade Agreements) and stock up prior to the price rise.
- Annual sales and profit per pig farm increased due to higher pork price and stable costs.

Poultry

- **Layers**
 - Egg consumption per capita has continued to rise since 2014.
 - Market price fell due to overproduction but increased due to the typhoons in autumn.
 - Number of fowl fed decreased due to lower market price and overproduction.
 - Annual sales and profit per egg farm fell, and measure for supporting egg price was applied for 7 months of the year.
- **Meat**
 - Due to demand for more healthy food, chicken production was recorded at the highest rate ever, whereas imported chicken also increased.
 - Market price fell by 5% due to overproduction.
 - Annual sales and profit per chicken farm increased due to increased production.

Arable

- **Rice**
 - Market price rose and was recorded at the second highest of the last decade.
 - Rice production decreased due to reductions in cultivation areas.
 - Yield per area was higher than in usual years, apart from western Japan.
 - The proportion of high-quality product was quite low due to immature rice caused by summer heat waves.



- Annual sales and profit per rice farm considerably increased due to increases in the size of farms and the price of rice and energy cost savings.
- **Wheat and soybeans**
 - The market price of wheat increased by 6% due to strong demand for high-quality product, and the market price of soybeans also increased by 13%.
 - Farmers had a good harvest of wheat and a poor harvest of soybeans due to weather conditions.
 - Annual sales per farm increased and annual profit per farm slightly increased due to energy cost savings.
- **Fruits**
 - The market price of mandarin oranges fell due to low-quality products and overproduction caused by a long spell of rain and a warmer winter.
 - The market price of apples rose due to a shortage of good quality products.
 - Annual sales per fruit farm increased.

Horticulture

- **Vegetables**
 - The market price of major vegetables fell by 11% due to a good harvest following beneficial weather conditions.
 - Typhoons did not largely affect production or market price.
 - Annual sales per vegetable farm increased due to a good harvest of crops and expansion in farm size, while annual profit per vegetable farm reduced due to increased labour cost.
- **Flowers**
 - Demand for flowers continued to shrink due to changes in traditional ceremonies (e.g. weddings, funerals).
 - The market price of chrysanthemums and roses remained consistent.
 - Annual sales per flower farm increased or remained consistent, while annual profit per flower farm fell due to increased material and labour costs.

Environmental

- A new policy initiative to promote Greener Food Systems was developed in May 2021, targeting various environmental outcomes by 2050, including carbon neutral agriculture, reduction in the use of chemical pesticides and chemical fertilisers and expansion of areas designated for organic farming. To attract investment from the international community, the Japanese government will unveil the ambitious Asian monsoon model for sustainable food systems at the UN Food Systems Summit in September 2021.
- Direct payments to support and advance multi-functional agriculture are developed further to cover farmers' activities, such as mitigation of natural disasters, conservation of site-specific values and adoption of generic farming technologies using fewer chemicals.



- Damage to crops caused by wild animals and birds is worsening. It is estimated at a loss of 15.8 billion yen (approximately 145 million USD) in 2019 and is one of the major reasons that farmers cease farming activities.
- The use of renewable energy in the farming sector is gradually increasing. Solar power generation on farmland and small hydroelectric power generation built into irrigation systems are popular.

Current research issues

- Digital farming and infrastructure
- Adaptive approaches to climate change (e.g. rice varieties resistant to high temperature)
- Climate change mitigation technologies
- Innovative rural development with non-farming sectors (e.g. food, tourism, welfare, education, energy, medical, sports and art)

Topics with increasing concerns in the industry

- New strategies for exporting food and agricultural products were developed in 2010 to identify market opportunities in selected countries related to the Trans-Pacific Partnership Agreement (TPP) and the recent EPAs with the EU, the UK and the US. Target sales of food and agricultural export products are estimated to reach 2 trillion yen (approximately 18 billion USD) by 2025 and 5 trillion (approximately 46 billion USD) by 2030.
- A new policy initiative for 'Smart Farming' was developed in 2020, based on the results of pilot projects adopting robotics, AI and IoT on farms. The Agri-food DX (i.e. digital transformation of the farming and food sectors) policy was developed in March 2021 to build more efficient food value chains.
- Due to rising concerns, measures regarding domestic livestock epidemic risk control are being developed.
- Due to rising concerns, measures regarding intellectual property rights drain risk (e.g. a new variety of grape) to foreign countries are being developed.
- Interest in FoodTech (e.g. protective food for human diseases, livestock food made from insects) is growing.

Threats and opportunities of COVID-19 for farming sector

- Drop of luxury product prices (e.g. high-quality beef, flowers).
- Decrease and cancellation of product sales (e.g. milk for school lunches and food for the Tokyo Olympic Village).
- Reduction of operating hours and closed farmers' markets.
- Increasing demand for domestic and safety products.
- Rising interest of urbanised population in rural life and farm business



Rice paddy art in Aomori

Trainees on lettuce farm

Packing on organic farm

Photos by Yukio Kinoshita

For further reading about agricultural policies in Japan and other developed countries:

Directorate-General for Internal Policies of the Union (European Parliament) (2019). A comparative analysis of global agricultural policies: Lessons for the future CAP.

<https://op.europa.eu/en/publication-detail/-/publication/f6f26587-9d3c-11e9-9d01-01aa75ed71a1/language-en>



Kenya

Weather

The period June 2020-May 2021 witnessed a regular onset of rains in the short rain season (September- November 2020) and delayed onset of long rain season (February-May 2021). This led to poor germination of the main staple crop, which is maize, in the long rains season necessitating replanting of the crop. Despite the delay in the onset of rains in early 2021, the rains already experienced has already threatened lives and livelihoods in sections of the country through flooding. There is still a huge threat of locust invasion because of the remnants of last year's invasion that have been sighted in the horn of Africa. There is therefore need for a regional coordinated effort to conduct early surveillance and control the locusts before they spread widely. As covid-19 threaten to enter into a fourth wave, a sustained implementation of health protocols with better regional coordination should ensure lives are protected, while pushing for economic recovery. The average annual temperature in the Kenyan grain basket was 16.6^o C. The country experienced good distribution of sunshine throughout the year.

Agriculture Economic Climate

The weather outlook was generally favourable for execution of most agricultural activities between June and December 2020. However, the long rains which are normally expected from mid march in the grain basket delayed and commenced at the beginning of May in 2021. A majority of farmers who had done dry planting were forced to replant and suffer the associated costs. The progressive escalation of Covid-19 from the 1st wave, second wave in 2020 and now third wave, with a fourth wave threatening later on in July 2021; disruption of value chains is expected to pose serious challenges to the economic recovery of the agricultural sector. Apart from Covid-19, the sector is still vulnerable to external shocks in the form flooding, drought, locust invasion and climate change. The lockdown and curfews in some counties has disrupted movement of people and slowed down movement of goods resulting in huge losses to business, jobs and the economy. The price of petroleum products which has continued to escalate over the report period affect the cost of living in one way or the other and will drive into poverty majority of the farmers and consumers in Kenya. With regional leaders engaging to come up with a more coordinated way of fighting Covid-19 while smoothening movement of people and goods regional trade is expected to be on the upward trend and will play a critical role in driving economic recovery. With global restriction of movement of people, special bilateral arrangement between Kenya and its partners were put in place to facilitate export of commodities such as coffee, tea, fresh vegetables and cut flowers to major export markets in Europe and other countries. The country's debt burden escalated from US\$ 60 billion which accounts for 63 % the GDP estimated at US\$ 95 billion in 2020 to US\$ 73 billion accounting for 65.6 % of the GDP estimated at US\$ 111 billion in 2021.



Livestock

Livestock rearing that is a traditional mainstay of many pastoral communities has previously been plagued by community inability to adapt to the changes in their environment leading to major losses in total numbers as well as value. Pastoralist heavily depends on the availability of and access to land and water, both of which are in decline due to population growth, land degradation and frequent droughts.

Pastoral communities in Kenya continued to face many natural and manmade risks which increased their vulnerability to external shocks. Both government and Non-Governmental efforts aimed at building resilience and disaster risk reduction among pastoral communities are ongoing in west Pokot, Maasai land and north eastern parts of the country.

With generally good precipitation and weather pattern, non-pastoral small scale dairy farmers continued with their farm activities with challenges being witnessed when they are procuring farm inputs or offloading their produce to the market. Most private dairies continued with milk processing\distribution and the government put in place mechanisms that facilitated movement of goods despite the curfews and movement restrictions in place. For farmers who practice mixed farming no major interruptions were reported on as they reared indigenous zebu cattle, pigs, goats and poultry on their farms.

Demand for primary and processed livestock products such as meat, eggs and milk for the reporting period increased in line with increasing population. Commercial layers and broiler production also increased, but could not satisfy domestic demand necessitating imports from neighbouring countries.

Arable

Small-scale farmers who contribute 60 % of arable agricultural production in Kenya took advantage of the good weather pattern in 2020 to produce maize (main staple), wheat, rice, potatoes and various legumes. Delayed rainfall in early 2021 affected the planting season resulting in extra costs attributed to replanting of some crops in the Kenyan grain basket which is located in the Rift Valley. A number of other crops were produced in mixed small family farms across the country and experienced favourable weather patterns. The farm gate price dropped between May and December 2020 before rising between January and May 2021. The National cereals and Produce board continued to play its role of stabilizing not only supply, but also general market prices of cereals in Kenya.

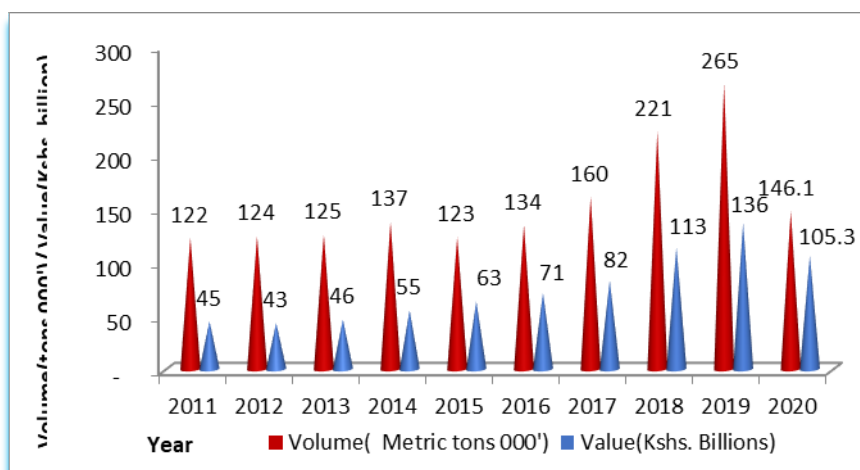
Horticulture

- **Cut flowers**

The cut flower industry is an important foreign exchange earner for Kenya. Europe accounts for 70 % of Kenya's cut flower exports, but the Corona virus halved daily orders by July 2020. Britain is the second largest export destination for the country's cut flowers after the Netherlands, taking nearly



18%. Flower exports dropped to 15% in early 2020, recovered to 70-80% of exports in July 2020 and 97% in April 2021. At the height of the first covid-19 wave 30,000 casual workers lost their jobs while 40,000 permanent staff were sent home on unpaid leave. Kenyan flower exporters remain concerned about the high freight costs resulting from the drop in airfreight traffic while fearing further spikes of covid-19 in Europe will worsen matters. However, with discovery of vaccines and increasing demand as many countries in Europe open up, there is hope that the sector will recover fully as we move into 2022.



The value of Kenyan cut flower exports to European Union rose from Kshs. 45 billion in 2011 to more than Kshs. 136 billion in 2019 before dropping to Kshs. 105 billion due to Covid-19 disruptions (23% drop). The volume of flower exports to Europe took a decade to more than double between 2011 (122,000 tons) and 2019 (265,000 tons) and just required one year of covid-19 pandemic to drop by more than double to 146,000 metric tons in 2020.

- **Vegetables**

The volume of vegetable exports dropped from 73,000 metric tons in 2019 to 63,000 metric tons in 2020, representing a 14 % decline. Due to favourable weather outlook most exotic and indigenous vegetables experienced a normal season with price variation following the seasonal patterns across the country.

Environmental

The biggest environmental problems in Kenya for the report period are poor governance; food waste, biodiversity loss, plastic pollution, deforestation, air pollution, agriculture and global warming from fossil fuels. These challenges were witnessed in Kenya through water pollution from urban and industrial waste, water shortage and degraded water quality from increased use of pesticides and fertilizers, flooding, water hyacinth, infestation in Lake Victoria, deforestation, soil erosion, desertification and poaching. The National Environment Management Authority (NEMA) spearheaded various activities nationally and through



county governments that promote sustainable utilization of resources with special attention being paid on environmental welfare.

Other Comments

The African Chapter of IFMA is scheduled to hold the AFMA12 Congress in Nairobi Kenya on 21-25 November 2021. Due to the global challenges still being witnessed preparations are being made to consider having hybrid conference that will provide for both face to face meetings with strict observation of health protocols and virtual presentation for those unable to be there physically.

Philip Nyangweso – May 2021

Latvia

Weather conditions

In 2020, the average air temperature in Latvia was +8.8 °C (2.4 degrees above the normal for the period of 1981-2010), making it the warmest year on record (since 1924), exceeding the record of 2019 by 0.6 °C (Figure 1). All three warmest years on record are since 2015, and period 2011-2020 was average 1 °C above normal.

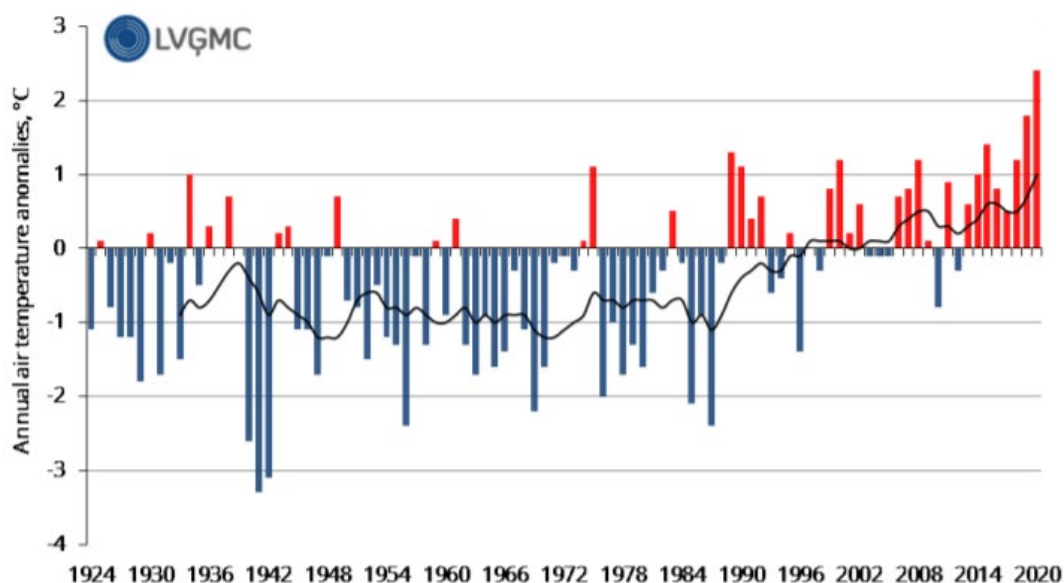


Figure 1 Annual air temperature anomalies in Latvia (1924-2020) relative to 1981-2010 normal, °C
(The black line represents the 10 year moving mean)

Total amount of precipitation in 2020 in Latvia was 641.5 mm, 7% below the annual normal (692.3 mm). Although last year was drier than normal, 2020 was the wettest of the last three years (Figure 2).

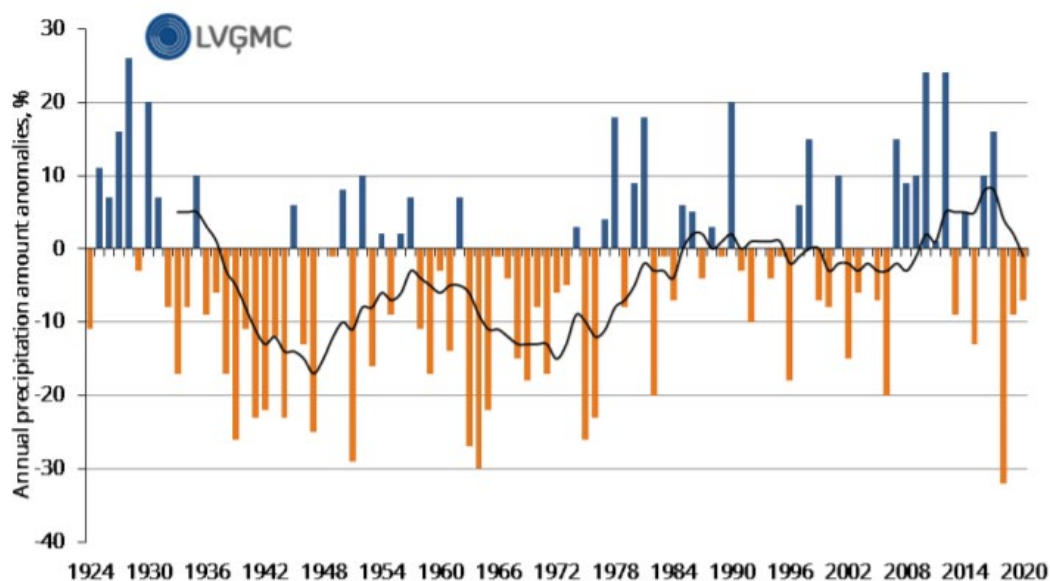


Figure 2 Annual precipitation anomalies in Latvia (1924-2020) relative to 1981-2010 normal, % (The black line represents the 10 year moving mean)

Year 2020 in Latvia was more windy than usual. The annual average wind speed was 3.6 m/s, which is 0.4 m/s above the normal. On 12 March in Liepaja (southwest Latvia), the strongest wind gusts of 2020 were observed – 34.1 m/s, the strongest registered wind gusts in Latvia in the last five years.

Source: https://klimats.meteo.lv/laika_apstaklu_raksturojums/2020/gads/

Agriculture Economic Climate

In 2020, the COVID 19 shock had a significant impact, with unexpected fluctuations in demand and supply, a change in consumer habits and subsequent financial support from a country seeking to stabilize the situation.

Economically, 2020 was a great year for grain producers, who achieved historically high yields at high market prices. Average purchase prices of grain increased by 3.4% - from 158.24 EUR t⁻¹ to 163.59 EUR t⁻¹. The largest price increase was for wheat (3.7%), which accounted for 83% of total grain purchases. The opposite situation is with livestock products. Average purchase prices of meat decreased by 4.3%. Pork prices were relatively high at the beginning of the year, but at the end of the year, prices did not cover the cost of production - a decrease of 8.1% in 2020. The decrease was smaller for beef (2.7%).

Concerned about the specific impact of Covid19, the Latvian government developed a program of 45.5 MEUR. However, concerns were overestimated and the necessary support for income stabilization was only needed for the livestock and pig sectors, as well as for improved risk management and partial repayment of interest. In total, 84% of the available funding was used in this support program.



In 2020, the shortage of labour supply will become more and more pronounced, which is observed both in the segment of low skill workers and seasonal workers, and in the segment of specialists. The restrictions of Covid-19 prevented the use of foreign seasonal workers to the extent necessary, which prevented the harvesting of part of the crop production.

In the segment of small farmers and home producers, the importance of technology in the sale of products became more and more strong. Due to the restrictions of Covid19, local markets were closed at least temporarily, fairs did not take place, which created a demand for the sale of products through logistics services and, together, shopping sites. This sparked a debate on the quality of home-grown products, in a context where it is more difficult to pass on the story of the product's production to the consumer.

In 2020, a heated debate began between the public, farmers and policy makers on the future of agriculture, which includes both the distribution of funding after 2023, the realization of the goals of the EU's Common Agricultural Policy and the use of pesticides. Active discussions are also taking place this year, unfortunately widening the gap of understanding between conventional pioneers of intensive farming and organic and extensive farming.

Livestock

The number of dairy farms and dairy cows in Latvia in 2020 decreased, but the average milk yield per cow has increased by 272 kg or 4% and reached 7163 kg average by cows and 8170 kg average by cow under milk recording. 80% of farms in Latvia are small farms with 1 - 9 cows and in total only 18% of all dairy cows are kept there. The largest percentage (23%) of cows are kept on large farms with at least 300 cows. The average number of cows in 2020 has increased to 11.6 cows in the herd.

Beef production in Latvia is developing as the number of cattle increases and their productivity indicators improve. Efficient management is possible in large farms, therefore there is an increase in the number of beef cattle in these farms. Out of the total number of cattle in 2020, 4637 beef cattle farms with 89499 beef cattle (pure breed and cross breed cattle) were registered in the Agricultural Animal Register, which is 1.0% and 6.3% more, respectively, than in the previous year.

At the beginning of 2020, the pig sector showed positive trends, but with the onset of the Covid - 19 pandemic and subsequent sectoral downtime and operating restrictions, as well as the continuing negative impact of African swine fever, the sector was subjected to severe challenges. All unforeseen factors led to a very sharp fall in the purchase price of pigmeat and difficulties in selling the product, which was exacerbated by the African swine fever in Germany, which led to an overproduction of pigmeat in the EU single market. In 2020, both the total number of pigs and the number of pig farms have decreased - by 2.7% and 0.6%, respectively. The largest share of farms is still made up of small farms with the number of pigs from 1 to 100 pigs - 98.8%, but large farms with the number of pigs from 101 and more pigs together make up only 1.2%. In turn, the largest number of pigs 94.5% is reared in a group of farms from 101 and more pigs, but in small farms from 1 to 100 pigs only 5.5% of pigs are reared.

Poultry in Latvia are raised both in large poultry farms with intensive production and in small farms, which operate according to both the rules of the conventional and organic farming system. Along with laying hens and broilers, other poultry species are also bred in Latvia - quails, turkeys, ostriches,



ducks, geese, guinea fowl - for both egg and meat production. Agricultural data centre data show that the number of poultry raised in Latvia is increasing every year. The total number of registered poultry in 2020 was 5840.3 thousand. Compared to 2019, this number has increased by 2.5%.

Analysing the data of the sheep breeding sector in 2020, it can be concluded that in comparison with the previous year, the number of farms has decreased by 8.3%, as well as the number of sheep has decreased by 8.0%. In 2020, the number of farms continues to decline and small farms still account for the largest share of the total number of farms. In 2020, 49.8% of the total number of registered farms were farms with 1 to 10 sheep.

Similar situation in the goat breeding sector in 2020 and comparing them with the data of 2019, there is a tendency to decrease the number of both animals and farms. In 2020, 11,480 goats were registered in the animal register, and 1,914 holdings, compared to 2019, the decrease is 1.6% and 4%, respectively. In recent years, there has been a growing interest in goat farming, especially among young people who want to live in the countryside and engage in environmentally friendly farming. In 2019, meat goats were raised on 7 farms, but in 2020 their number has increased to 13 farms. Goat farming is a sector that not only provides quality and valuable products, but also provides an opportunity to diversify its farming in the countryside, as well as goat breeding is useful for grazing meadows and landscaping.

In the horse breeding sector, in 2020 compared to the previous year, there is a slight decrease in the number of horse farms (1.7%) and the number of horses by only 0.1%, which is a positive indicator compared to the declining trend in the number of horses observed in previous years. The most bred in Latvia are the Latvian horse breed sport and riding type horses, from which both high-class sport horses and horses are trained for training riders in sports schools and amateurs, as well as the horse breeding industry gives the population the opportunity to actively relax and maintain a healthy lifestyle. In rural areas, the sector contributes to the maintenance of the natural landscape and the preservation of the traditional rural way of life.

Arable

Grain growing is one of the most important agricultural sectors in Latvia, as it provides the population with food and the livestock sector with concentrates. Recently, cereal products are increasingly being used in other sectors, such as energy.

2020 was a record year in grain growing - the highest total grain yield in the history of Latvia was achieved - 3.5 million tons, which is by 333.9 thousand tons or 10.6% more than in 2019. The highest grain yield was also achieved - 46.4 cnt / ha (the second highest was in 2015 - 44.9 cnt / ha). In 2020, the sown area sown with cereals was also the largest - 753.7 thousand ha.

The area under cereals seed has also been increasing in recent years. In 2020, the area under cereal seed production in the country has slightly decreased compared to 2019, mainly at the expense of summer crops. Winter seed production areas continue to increase. In 2020, the areas increased for wheat, barley and triticale, but decreased for rye.

The development of seed production is also to some extent facilitated by voluntary coupled support for the area in which certified cereal seed is produced. Voluntary coupled support is intended for the production of certified seeds of wheat, rye, triticale, barley, oats and buckwheat.



Horticulture

The year 2020 was successful for Latvian fruit growers. The berry and fruit harvest was affected by the favourable weather conditions in 2020. As usual, apples had the highest fruit harvest in 2020 - 69.8% of the total fruit and berry harvest.

The total area of Latvian fruit trees and berry bushes in 2020 increased by 2.5% compared to 2019, and such a trend of area increase has been observed for six years in a row.

Although in 2020 the weather was favourable for growing vegetables in the open field, 159.9 thousand tons of vegetables were grown, which is 13.9 thousand tons or 8.7% less than in 2019. This decrease was influenced by the decrease in average productivity from one hectare of open field - from 192 quintals in 2019 to 177 quintals in 2020. Garlic areas have increased significantly, but garlic yields lag far behind those of the world's leading garlic growers. 12.0 thousand tons of vegetables were grown in greenhouses - by 0.8 thousand tons more than a year earlier.

The area of potato plantations in 2020 was 18 thousand hectares, which is about 4 thousand ha less than in 2019. The average yield of potatoes in 2020 was 20.8 tons per hectare, which is a 7% decrease compared to 2019. Due to the reduction of potato planting area and productivity in 2020, their total yield, compared to the previous year, decreased by 125 thousand tons or 25%.

Diana Ruska and Kaspars Naglis-Liepa – September 2021

The Netherlands

Agriculture Economic Climate



The Agro complex delivers 7% of the GDP (gross domestic product).

In 2018 the added value of the total agro complex amounted to approximately 54 billion euros. This means the total agro complex contributes 7.0% to the national gross domestic product (GDP). In terms of added value, the arable complex is the most significant within the total agro complex with an added value of 26 billion euros. This is due to the large share of imports of coffee, tea, cocoa, and of vegetable oils and fats. Within the agricultural complex based on domestic raw materials, the extensive livestock farming complex has the largest share in added value and employment. Employment in the entire agricultural complex has grown during recent years, reaching about 641,000 employment years in 2018, which represents 8.5% of the national total.

Agricultural goods exports reach new high despite corona

Dutch agricultural exports are estimated at 95.6 billion euros for 2020, which is 1.0% higher than in 2019 (94.6 billion euros). Despite the Corona crisis, the Netherlands is likely to set a new agricultural export record in 2020. However, due to sharply lower exports in November and

December 2020 – the effect of a second wave in the corona pandemic – the figure for 2020 may be slightly lower than in 2019. The value of agricultural imports is estimated at 67.1 billion euros in 2020 (+4.5%). The trade surplus, the balance of exports and imports, is estimated at 28.5 billion euros for 2020, less than in the previous three years. In 2019, the surplus was 30.5 billion euros (Jukema et al., 2021).

Export growth can be fully attributed to growth in re-exports

Dutch agricultural exports consist of re-exports (unprocessed or semiprocessed imports that pass through the Netherlands to a third country) and exports of Dutch products. In 2020, exports of Dutch products are estimated at 68.3 billion euros and re-exports at 27.3 billion euros. This amounts to a decline of 0.6% of exports of Dutch products relative to 2019 and a growth of 5.1% in re-exports.

EU most important trade partner

In 2020, about 73% of Dutch agricultural exports went to EU countries (including the United Kingdom). Germany, Belgium, the UK, and France accounted for approximately 54% of the exports. The most important export products are flowers and plants, meat, dairy and eggs, vegetables and fruit (Jukema et al., 2021).

Farm income

The average farm income for agricultural and horticultural businesses in 2020 is estimated at around 54,000 euros per unpaid annual work unit. Despite corona support measures from the government, this amounts to a decline of almost 20,000 euros compared to the good agricultural year 2019. The income is also lower than the multiannual average of 59,000 euros over the period 2015-2019. Average revenues per farm or growing operation for the total agriculture and horticulture sectors are expected to fall by 2%, mainly due to a drop in demand as a result of the corona pandemic. Expenditure and depreciation are expected to increase by an average of 3% in 2020, mainly due to growth in the size of farms or growing operations. .

After reaching a historically high level in 2019, the average net income of pig farmers is expected to become negative in 2020. This is caused by higher costs due to the increased average size of farms, as well as lower prices for piglets and fattening pigs due to the corona pandemic and the outbreak of African swine fever in Germany. In combination with a ban on exports to important third countries such as China, this puts a strong downward pressure on the European pig price.

Arable farmers are struggling with lower potato prices, an important source of income in this subsector, causing their incomes to drop slightly to around 40,000 euros.

Dairy farmers are also seeing their income fall – to 43,000 euros – due to lower milk prices and higher feed costs.

Broiler farmers are seeing a decline in their turnover due to the temporary closure of food service companies at home and abroad. As a result, their income will drop significantly in 2020 to 44,000 euros on average.

In greenhouse horticulture, the incomes of vegetable growers and cut flower growers are falling. In the greenhouse vegetable sector, costs are rising faster than revenues. The turnover of cut flowers has remained lower after the announcement of lockdown measures in various countries this spring.

Environmental

The environmental impact of the primary agriculture and horticulture sector is visible and measurable through different environmental indicators. There is wide ranging variation between developments connected with each environmental issue. The agricultural sector is with a share of approximately 85% the main source for the emission of *ammonia*. The ammonia emissions from stables and in the use and storage of animal manure make up the lion's share of ammonia emissions. For the 2020-2030 period, a 13% decrease in ammonia emissions from all sources has been agreed in the EU when compared to 2005 (134 million kg). This objective has already been achieved. However, nitrogen deposition, partly as a result of ammonia emissions, is still too high in the Netherlands to achieve biodiversity targets. Although the Dutch agricultural sector has more than halved its emissions since 1990, ammonia emissions per hectare of agricultural land are still 60 kg, the highest in the EU. In November 2019, the government announced two measures for agriculture that should lead to a decrease in nitrogen deposition in the short term. The first measure concerned ammonia reduction through a change in feed composition. Animal feed often contains more protein than an animal needs, leading to more ammonia in the urine and manure. Ultimately this feed measure was not introduced because the reduction in nitrogen resulting from the measure was considered too small (LNV, 2020). The second measure involved cutting the total number of livestock through a compensated reorganisation scheme for pig farmers.

Pesticide sales have been fluctuating at around 10 million kg of active ingredients per year. In 2018, sales were 9.3 million kg, which is more than 11% lower than in 2017. More than 45% of the products are fungicides, about 30% are herbicides (weed control agents, including glyphosate) and about 20% are other types of products, especially soil disinfectants and mineral oils. Fluctuations in usage are closely related to the weather. The summer of 2018 was very sunny and dry. Warm and dry summers lead to lower use of pesticides.

(The above Information taken from Food Economic Report 2020 of the Netherlands, published by Wageningen University & Research by H.A.B. van der Meulen)

Other comments

Last 2 years the agricultural sector is in the center of attention of the political discussions. For the 1st time in 25 years farmers went on masse to the streets to protest, the so called tractor protests. Targets were: House of Parliament in The Hague, Provincial State Offices, Institute for Environmental Sciences (RIVM) in Bilthoven, and Headquarters of Super Market Chains. The COVID situation caused it to slack down.



The elections in March 2021 resulted in 16 parties to enter the Parliament. New is the Farmers party (BoerenBurgerBeweging). The Animal Party (PvdD), that opposes animal husbandry, gained again one more seat and is becoming a commonly accepted party (proposes a reduction in number of production animals of 70%). Those parties call animal husbandry an “industry”.

Formation of a new government is going on. Almost all major topics have a link to animal husbandry.

- **Covid pandemic: how to handle this and the financial compensations for businesses?**

Research is going on to examine the relation between COVID disease frequency and intensive populated animal regions. Among other reasons, the closing of mink farming operations during the pandemic fed this discussion.

- **N-crises**

Ammonia emissions are said to threaten (some) nature areas. About 42% of the total N-emissions are contributed by the animal sectors. The federal court blocked in 2019 all construction projects which cause N-output. 1900 of such projects, like housing and road constructions and completion of a new airport, came to a standstill. Off course, also agricultural constructions stopped. A temporary solution was found by lowering the speed on all main roads and a buyout program for pig farms, etc. Much more needs to be done.

- **Global warming**

Big efforts are underway to deal with the so called EU Green Deal. The local communities are sometimes positive but most times critical towards installation of wind mill parks and solar panel s on (agricultural) land, especially when close to urban areas. The dairy sector needs to reduce the cow related methane emissions. Plenty of research funds became available to work on this.

- **Meat tax**

To stimulate protein consumption from plant origin, a meat tax is considered. This is also presented as a route to combat global warming by lowering feed soya imports from Brazil and USA, protecting this way the dismantling of forests in those countries. There is not yet a clear political support for this.

- **Housing and land**

The plan is to build 1 million houses in next few years to solve the shortage, caused by a fertile human population and a changing lifestyle. The country counts 17-18 million inhabitants. Off course, this big building effort puts pressure on the availability and use of agricultural land.

Abel Kuipers – May 2021



New Zealand

Weather

As predicted by weather experts, the La Nina effect has resulted in extremely variable rainfall patterns in the South Pacific. Significant rain over NZ at Christmas has been followed by extremely low subsequent rainfall in the east of both islands and in the south (where much of our hydro storage is). As a result, many farmers have destocked and electricity prices have spiked.

Better rainfall patterns in the central North Island and the reliability of irrigated Canterbury farms have ensured that national grain yields and milk production is at target.

Economic climate

Like all parts of the world, economic activity has been driven by Covid and stimulatory government response to that threat.

Because NZ was not highly ranked in its pandemic readiness, and therefore, under advice, the NZ government acted very fast relative to countries who backed themselves to contain Covid better, our cases have remained low, and cases have been almost exclusively associated with border re-entry at managed isolation facilities.

In the agricultural processing sector, we have therefore been relatively unaffected after the initial short sharp lockdown a year ago. Horticulture has been the most affected due to a stronger reliance on migrant (pacific island) contract labour. Disruption to supply chains has been a larger issue with unreliable international shipping schedules challenging NZ's ability to get product to market on time. Despite those challenges, in the main, product has been delivered in a timely manner, particularly to Asia, and hence demand for NZ product has been strong.

Internationally, we have all been surprised by consumer demand since Covid struck. NZ food exporters, representing 96% of food produced in NZ, have been able to fill supply gaps, albeit at a scramble, and have met high demand in China. Import shipping schedules have been more unreliable.

The NZD/USD and cross rates against Europe and UK currencies dropped suddenly this time last year but over the past 12 months our currency has appreciated roughly 25% against the USD, incurring substantial negative impact on farm gate prices, particularly meat, which is mainly traded in USD.

Livestock

- Dairy

Dairy demand has strengthened over the past 12 months, driven substantially by demand out of Asia, where covid has enhanced dairy demand. Restrictions on people movement have not been required to the same degree as in Europe and the American continent .

New Zealand is just completing its (seasonal supply) season, with most herds dried off in June and July. Production is similar to 2019/20. NZ milk output has probably peaked, with housing and horticultural expansion replacing some dairy farms and some smaller farms also returning to beef. In addition, very tight new environmental restrictions and Green House Gas targets associated with



the Paris Accord Climate Change Agreement will put downward pressure on livestock numbers. Fonterra is evolving its future business model to be profitable with the same or less milk.

- **Meat**

Complex global market dynamics are at play with red meat.

China demand for beef and lamb has been high, possibly accelerated by the impact of ASF on pork supply.

New Zealand's other key markets of USA, UK, Europe and the Middle East have been disrupted by Covid. Food service has been particularly affected. Venison has been more impacted as the bulk of venison was sold via food service in the Benelux countries, Germany and USA.

Increased demand from retail substantially offset the drop in food service demand, so lamb price impact has been buffered.

Beef trading is dynamic, with China closing off much of the Australian supply (which was smaller anyway as Australia recovers from drought). Domino effects have occurred with Argentina suspending beef exports for political reasons and USA filling the Australian gap in China. We are small in international beef trade terms but our lean grass fed cow and bull beef fills a key gap in the USA meat pattie trade and our grass fed prime beef has a niche in Asia and the USA, with very minimal volumes to Europe.

Arable

Coming after a record 2020 harvest, our 2021 harvest did not quite fulfil its promise due to lack of heat units, but was still good. The East coast of New Zealand is still in a La Nina drought complex like parts of the Americas, but a much higher proportion of grain, small seeds, vegetable seeds and fresh vegetable production is irrigated relative to 15 years ago, so annual volume volatility is buffered.

New Zealand is not self-sufficient in grain at present but has been in the past. Again, international grain trade dynamics are complex but inter-related.

Horticulture

New Zealand's wine harvest has been poor, given the impact of a late cold snap, but is high quality and inventories are low.

The kiwifruit harvest is partially complete and pip and stone fruit are complete.

Prices are firm reflecting good demand and lower supply. New Zealand is a niche fruit supplier but positioned in the premium price end. Areas of avocados, apples and hops are expanding.

Due to New Zealand's covid "free" status the Government has severely restricted access for temporary migrant casual labour, which has particularly impacted the horticulture sector. Harvest has been slowed for that reason and is accelerating innovation around automation of harvesting. That is a medium term, not a short term solution.

Research Issues

With the Tsunami of 'promises' from Governments, FMCG companies and retailers in relation to 'Net Carbon Zero', research priorities are focused on how to solve the multiple pillars of carbon, environment and productivity gains to partially offset likely reduction in animal numbers. No answers are easy but given our international commitments, we are motivated to address the problem.



Other Comments

Given we are stuck in the South Pacific and not able to travel readily, we have had to manage our way through customer interactions with the assistance of Zoom and MS Teams! Many expat New Zealanders have returned home to relative 'freedom', but we look forward to meeting our customers in person again, maybe not until 2022. Our vaccine programme is well behind other western countries, given we are deemed low priority, but we do hope to have most New Zealanders vaccinated by year end. Until we do, our borders are unlikely to be open to tourists from most countries.

We have recently opened borders with Australia and some Pacific Island neighbours. It appears clear that many countries and airlines will only allow travel if verifiable vaccinations passports are in place. We are yet to see where the impact of unprecedented liquidity creation by central governments around the world will pop out long term.

The largest short term impact in New Zealand has been in house prices and demand for consumer goods and 'toys'! If people can't travel, they have invested, or 'splashed out' at home.

On one hand, we have a sense of relief. Conversely we should be on edge for unintended consequences of unheard of liquidity creation.

- **Farmer Sentiment**

Like food producers around the world, our farmers feel a little more appreciated than pre-Covid. Conversely, they are acutely aware of the implications for farm systems, capital spend and profit from stringent environmental criteria. Undoubtedly though, our producers feel blessed to have been less interrupted by Covid than our friends in many countries.

Nga Mihi. We look forward to meeting again.

Tricia and Andy Macfarlane - May 2021



Nigeria

Weather

Tropical Climate. Temperature currently is between 26 degrees centigrade in the coastal states in the south and 38 degrees centigrade in the drier north.

Agriculture Economic Climate

Agriculture contributed 21.42 % to the nominal Gross Domestic Product (GDP) in the first quarter of 2021. This figure was higher than the rates recorded in the first quarter of 2020 (20.88 %), which is an indication that the country is recovering from the shock of the Covid-19 lockdown. Agriculture provides means of livelihood for over 50 per cent of the total Nigerian population of about 200million people. Four sub-activities make up the Agricultural Sector in Nigeria: Crop Production, Livestock, Forestry and Fishing. Crop Production remain the major driver of the sector, as it accounted for 71.69 % of overall nominal growth of the sector in the first quarter of 2021. Peasant agriculture predominates and account for 90 percent of both output and employment in the agricultural sector. In terms of contribution, the sector accounted for 22.35 % of overall GDP in real terms in the first quarter of 2021, higher than the contribution in the first quarter of 2020 but lower than the fourth quarter of 2020 which stood at 21.96 % and 26.95 % respectively. The weakness in the growth of the agricultural sector has been manifested in food inflation.

- a) Food inflation which has the highest weight in the Consumer Price Index (CPI) basket, rose by 1.0 percentage point in January 2021 to 20.6 percent (year-on-year). It increased further to 21.79 and 22.95 percent in February and March, 2021 respectively. It moderated to 22.72 percent in April, 2021, mainly attributed to the increased availability of food products, following the intervention policies of the Federal Government.
- b) Intervention schemes by the Central Bank of Nigeria (CBN) focus on enhanced credit delivery to critical sectors, in a bid to enhance productivity and stimulate the real sector of the economy to which agriculture belongs. In a bid to further strengthen its intervention into the agricultural sector, the CBN, amended the Agricultural Credit Guarantee Scheme Fund (ACGSF). The amendment allowed for increase in the share capital of the Fund from N3.0 billion to N50.0 billion, as well as increase the maximum amount granted to both collateralised and non-collateralised loans under the scheme. The amendment also allowed the scheme to finance all aspects of the agricultural value chain. Similarly, to further increase agricultural productivity and ensure sustained income for farmers, the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL Plc), in collaboration with the Royal Exchange General Insurance Company (REGIC), developed a Hybrid Multi-Peril Crop Indemnity-index Insurance (HM-II). This new product is designed to protect farmers from losses during planting season caused by bad weather, pest, disease and fire outbreaks and permanent disability or death of farmers. The improved credit delivery and intervention programmes are expected to stimulate output, thereby easing inflationary pressure, particularly, food inflation.



Livestock

Nigeria is endowed with various livestock which include; cattle, sheep, goats, pigs, poultry, rabbit, donkeys, camel, horses, etc. Nigeria also has many fishery resources, which include various species of fishes like catfish, tilapia, croaker, shark, etc, as well as shrimps, crabs, etc.

Arable

Nigeria has five ecological zones, which supports a variety of arable crops such as cereals, grains, legumes, vegetables, seeds, fruits and nuts.

Horticulture

- **Soft Fruit:**

Bananas, Mangoes, Oranges, Pineapples, guavas, lemon, lime, grapefruit, watermelon, cucumbers, etc.

- **Vegetables:**

okro, leafy vegetables (spinach, waterleaves, pumpkin leaves, etc.), tomatoes, peppers, onions, etc.

Environmental

Desertification and erosion problems.

Current Research Issues

Focus of research is on development of improved varieties of crops and livestock as well as improved agricultural practices.

Other comments

Nigeria is open to foreign investors who are willing to help modernize the agricultural sector to enhance the value chain.

Grace Evbuomwan – May 2021

Poland

Weather

Year 2020 - it was the second (after 2019) warmest year in the history of measurements. The main reason for such a high result was an exceptionally warm winter without major frosts. In summer, although June and August were months above normal, we did not record extreme heat. Thanks to relatively humid summer months and parts of winter, 2020 was recorded in most areas with normal or above-normal rainfall, which was favourable to agricultural crops. It was needed after very dry and hot 2019.

General climate characteristics in Poland: the climate in Poland is continental, with cold winters, often below 0 °C (32 °F), and warm summers. The climate is milder along the northern coast, overlooking the Baltic Sea, while it becomes progressively more continental going to the south, near Tatra Mountains.

Winter, from December to February, is cold throughout the country. The average temperatures in January is -1 °C (30 °F) in the north-western area to -4 °C (25 °F) in the easternmost area. Summer, from June to August, is pleasantly warm: the average daily temperatures are around 17/18 °C (63/64 °F). The Baltic sea coast, is the coolest in summer, around 20/21 °C (68/70 °F), while the temperature gradually increases towards the south, reaching 23/24 °C (73/75 °F) in the center and south of the country. Precipitation in Poland amounts to about 600 mm per year; the driest seasons are winter and spring, while the rainiest is summer.

Agriculture Economic Climate

General importance of agricultural sector in Poland in 2019⁴. Rural areas in Poland cover 93% of the country's territory. The total area of agricultural land is about 14.64 mln hectares (2020), which places Poland in the 5th place in the European Union. Polish agriculture absorbs around 9% of the total employment of the country (EU average 3,9% in 2019, EUROSTAT). The share of the agricultural sector in Gross Value Added in 2019 amounted to 2.7% (Statistical yearbooks, Polish Statistical Office).

The main agricultural products in Poland are cereals (16% of Gross Agricultural Output in 2019, GAO), animals for slaughter 29,8% of GAO (mainly pork 11.7% and poultry 11.9%), cow's milk (16.0%), vegetables (10%) and fruits (5.1%) and Industrial crops (5,3%). Poland is the net-exporter of agricultural produce and the one of the largest in the EU producer of poultry, apples, black currants, raspberries, white cabbage, carrots and triticale. It is also on the 2nd or 3rd place with strawberries, onion, cauliflower, oats, rye, wheat, sugar beets and rapeseed (Statistical yearbooks for Agriculture, Polish Statistical Office, 2021).

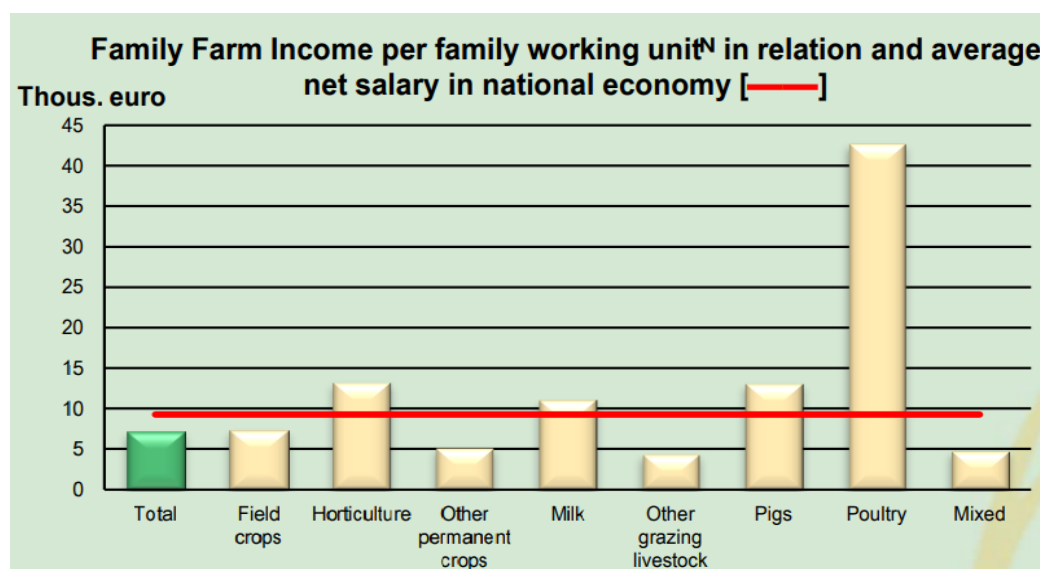
Polish agriculture is characterized by a large number of farms and strong fragmentation of the farming sector. In 2019 there were 349,2 thousand farms with agricultural land over 10 ha, which

⁴ last available data are for 2019 (*Statistical Yearbook for Agriculture, March 2021*).

utilized ca. 72% of agricultural land in Poland. The lion share of the remaining number of farms (around one million) with lower area than 10 ha have rather small contribution to the market production.

Economic results in CEE countries are still much lower than the in Western European counties. Most of CEE countries hardly ever obtain 10 thousand euro of yearly family farm income per annual farm working unit, in 2019, Poland an average farm income was around 6,7 thousand euro per person, per year (Polish FADN, in 2019), however there is a large diversification observed according to farm type (figure 1). Estimations of Polish Farm Accountancy Data Network, indicate that the average farm income will increase in 2020 by 20%, what will be a continuation of the trend observed past years.

Figure 1. Family farm income according to different farm types in Poland in 2019



Source: Polski FADN 2021, official website.

Year 2020 was also a time for Polish farmers to prepare for the new situation related to Great Britain leaving European Customs Area, which in recent years was Poland's second trade partner on the agri-food market. In 2019, the export of Polish agri-food products to the UK market generated EUR 2.8 billion in revenues, which accounted for a 9% share in the total value of exports. Changes in trade relations with such an important trading partner may have a significant impact on the supply and demand situation on the Polish market. This may involve the need to adapt the domestic supply to changing external conditions and constitute an impulse towards further diversification of sales markets.

COVID Pandemic. In 2020, Poland, like other EU countries, was affected by the COVID pandemic. The first (March and April) and the second (October November) waves of the COVID pandemic effected in the lockdown of the entire economy and especially restricting restaurants, hotels, catering



industries that use food products as inputs. This affected seasonal fluctuations in demand for products on the market. Another problem, apart from broken supply chains during the pandemic, was the difficult transfer of foreign workers to agriculture, which particularly affected the situation in the fruit and vegetable sector. In order to alleviate the difficult situation caused by the coronavirus pandemic, the Ministry of Agriculture proposed a number of solutions in so-called Anti-Crisis Shield, among others: an allowance for farmers and household members for the period of quarantine, changes in the funds for the promotion of agri-food products, preferential loans for farmers, extension of the deadline for submitting applications in 2020, facilitating the arrival of seasonal workers to Poland. This partly helped to normalise the situation in agriculture during the harvesting period (summer) in 2020.

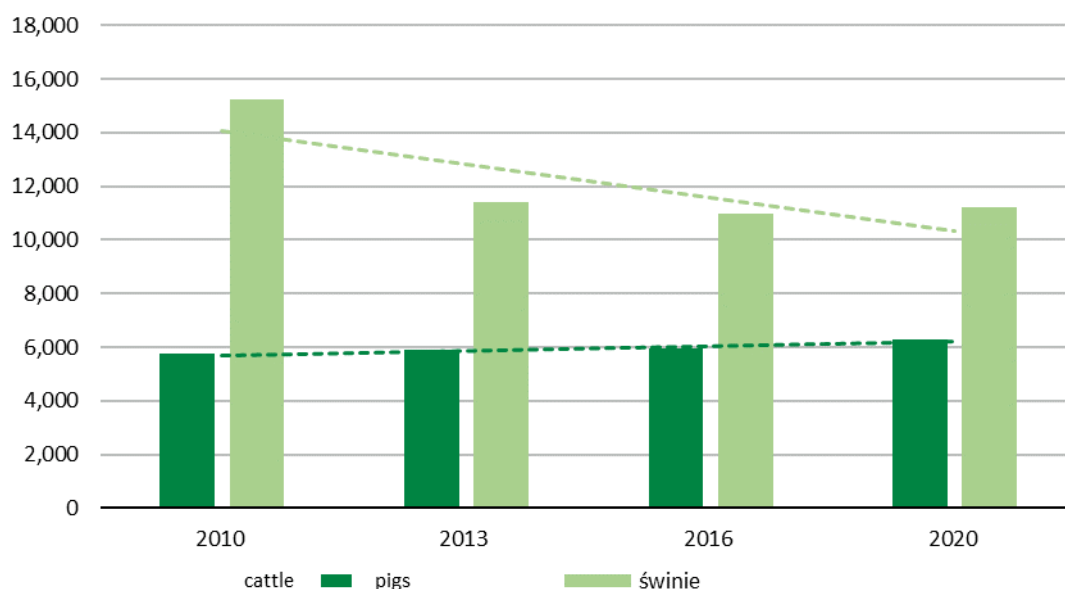
In December 2019, the European Commission announced a communication on the European Green Deal. This communication was aimed at initiating international actions seeking to achieve economic objectives with much stronger respect for environmentally and climate-friendly practices. Its aim is to build a modern, resource-efficient and competitive economy that will have reached net-zero greenhouse gas emissions by 2050 and that economic growth will include the optimal use of natural resources. The implementation of the European Green Deal requires taking a number of actions aimed at improving the state of the natural environment and stabilizing the climate through developing effective Europe-wide actions. The Communication presented a preliminary action plan covering the key policies necessary for achieving the European Green Deal: greening of the Common Agricultural Policy, including the Farm to Fork Strategy; preservation and protection of biodiversity; ambitious climate targets and linking to the European Climate Pact; clean, affordable, and secure energy, striving for a zero-pollution ambition for a toxic-free environment; industrial strategy for a clean circular economy; sustainable and smart mobility; mainstreaming the issue of sustainable development into all areas of EU policy. The implementation of the European Green Deal strategy entails many challenges to be faced by EC policy-makers, and then by the individual EU Member States, as well as society.

Livestock

According to the preliminary results of Main Statistical Office in 2020, the number of basic livestock species on farms amounted to:

- cattle - 6 299 thousand units and increased in relation to 2010 by nearly 10%.
- pigs - 11,203 thousand units and decreased in comparison to 2010 - by over 26%.

Figure 2. Number of basic livestock species on farms in Poland 2010-2020



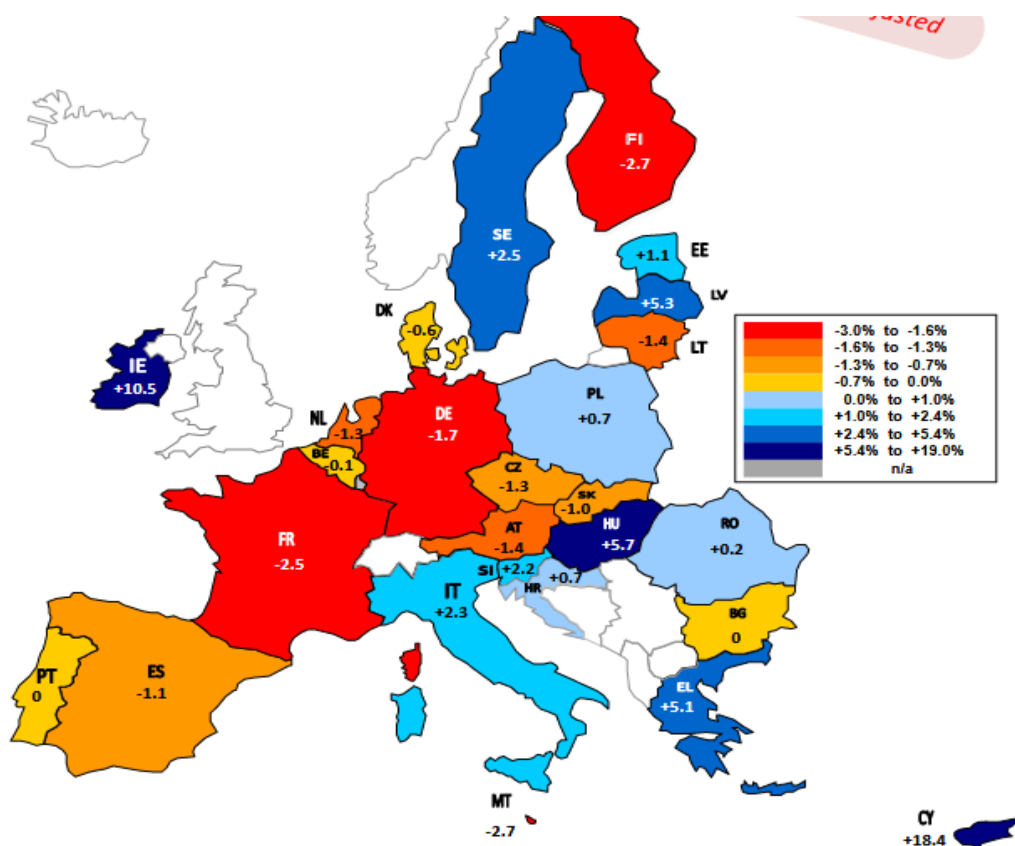
Source: Polish Statistical Office 2021, Informacja o wstępnych wynikach Powszechnego Spisu Rolnego 2020. 31.03.2021.

- **Dairy sector**

Poland is 6th largest milk producer in Europe (after Germany, France, United Kingdom, Netherlands and Italy). Together with the CAP liberalization process, especially abolishment of the EU milk quota system in 2015 and reducing export subsidies, dairy market is more exposed to the world market dynamics. Taking an advantage of the cost competitiveness of dairy production in Poland, large investments done in the past years at the farm level, high demand for milk expressed by processing industry, resulting from investments in processing powers, and growing demand for dairy products, dairy farmers continued development towards increased specialization and production scale.

In 2020 despite production conditions affected by COVID pandemic, milk deliveries to dairy industry continued to grow, as is past years. However the growing trend slowed down to +0,7% (figure 3). The population of dairy cows in 2020 increased by 0,2% to 2,2 thousand heads. Progressive concentration and modernisation of the milk production in medium-sized and large farms resulted in the increased average milk yield of dairy cows by 1,4% to about 6,440 litres/head in 2020. After a first COVID shock on markets (due to a lock-down of the entire Polish economy in March and April 2020), the production of milk products increased, as well as export, which ranged 35% of milk production equivalent.

Figure 3. EU Milk deliveries compared to last 12 months period (III2020-II2021 to III2019-II2020)



Source: MS' Communications to Eurostat, FEAGA, AGEA, Reg.479/2010.1(a)1 - accessed 05/2021

- **Pig sector**

The pig sector in CEE countries was in 2020, and is still seriously **affected by African Swine Fever (ASF)** which since 2014/15 continues to spread across areas of Europe. Within the EU, ASF is present throughout the territory of Poland (eastern part), Estonia, Latvia, and there has been limited ASF circulation in Lithuania, Czech Republic, Romania. ASFV spread continued in a number of third countries, including Moldova, Georgia (South Ossetia), Russia, Belarus and Ukraine. In Poland within protection zones and surveillance zones, producers are prohibited from moving pigs from the holding. Pig producers suffer from low prices and limited possibilities of sale.

Another factor was decreased demand for meat due to COVID pandemic which caused the fall in the prices of pigs in May 2020. As a result, in the second quarter of 2020, the average price of class E pigs in the EU-27 was EUR 168.7/100 kg of slaughter weight and in Poland – EUR 162.59. Those prices were lower than the year before by 2.2% and 8.2%, respectively. In the next months, the fall 2020 in the prices was even stronger, which was promoted by the decreased demand in the Hotels and Restaurants channel, restricted by the COVID pandemic. In June 2020, pig livestock in Poland amounted to 11.2 million heads and was slightly higher than in June 2019 by 2,7% (figure 1).



c) Arable and horticulture

In 2020 **cereal crops** in Poland are estimated **at a record** 33.3 million tons, i.e. **ca 15%** up on 2019 (affected by draught). The increase resulted from higher than in the previous year yields (IERIGŻ 2020). As compared to 2019 the crops of all cereals increased with the highest increase for cereal mixes, oats and rye. Reflecting favourable weather conditions during the harvest the quality of production was good.

According to the IERIGŻ 2020, estimates, **rape harvest** in Poland in 2020 **increased** by about **16%** to 2.7 million tonnes, as a result of an approximate 17% increase in yields with an approximate 1% decrease in the cultivation area. In the 2020/21 season, with higher yields, the export **of rape** shall increase by about 21%.

In 2020, the **potato cultivation** area, was by about 6% higher than the year before. The harvest amounted to around 8.87 million tonnes and was by 2.27 million tonnes higher than in 2019 (due to drought) and by 0.93 million tonnes higher than the average harvest in the years 2011-2015.

In 2020, according to GUS data (Preliminary estimate), the production of fruit in Poland was higher by ca. 9%, when compared to the previous year. The harvest of apples increased by 10.4%. As regards other fruit, the production of raspberries increased most in relation to the very low harvest in 2018 (by 61.2%). The strong upward trend in the harvest of northern highbush blueberries was continued. Lower than in 2019 was only the production of strawberries (due to spring drought), so was the production of plums, cherries and chokeberries. The harvest of ground vegetables increased by 4.5%.

The state policy measures making it easier for seasonal workers (mainly from Ukraine) to cross the border during **COVID** Pandemic resulted in the lack of significant problems with the harvest of fruit (and vegetables) in Poland. The production of fruit increased in most EU countries, with the decrease in the production of vegetables, including industrial tomatoes (IERIGŻ 2020).

Agata Malak-Rawlikowska – May 2021

Slovenia (Europe)

Weather

Variable weather conditions and extreme weather events have also marked this year's harvest crop. Due to the drought conditions in autumn 2019 and poor soil water supply, many growers had problems with timely sowing of winter cereals. During the winter months, temperatures were above average, with intermediate cold periods and below average precipitation in February and March. The vegetation period started earlier than usual. Due to the lack of precipitation, the water balance was in deficit at the beginning of the growing season, it improved due to heavy rainfall in June and was positive at the end of the growing season, due to heavy rainfall at the end of September.

The second half of March was marked by heavy frosts after a period of above-average temperatures. This was followed by frosts in the first half of April. The most damaged were fruit trees (peaches and apricots), vines and also (too) early planted vegetables. At the end of April, the soil warmed up again and was suitable for sowing corn and other spring crops. In May, temperatures were below average, and the amount of precipitation was unevenly distributed in terms of time and regions of Slovenia. Frequent rainfall in June hampered the mowing of the grass. Due to low temperatures, the ripening of wheat and barley was also hindered. July and August were above average warm, with above average rainfall, which could have made it difficult to harvest wheat. Hail storms also occurred in some places, causing damage to agricultural crops. The vegetation period ended with an above-average warm September, which was favorable for the completion of grape ripening and harvesting.

Agriculture Economic Climate

- **Country Statistics**

- Population of Slovenia is 2,108,977 inhabitants
- Average monthly gross earnings is 1,946.07 EUR
- Unemployment rate as a percentage of the labour force 5.1 %
- Volume growth of GDP is - 4.5 %
- Inflation 2.1 %
- Farms and Agriculture:
 - The gross value added of agriculture in GDP is 1.2%;
 - 69,902 agricultural holdings with an average of 6.9 ha of utilised agricultural area and 6.0 large livestock units;
 - 1.1 annual working unit per average agricultural holding, with 57 years of an average age of the manager of the agricultural holding;
 - Average economic size per agricultural holding (standard output) is 16,600 EUR;
 - Factor income per employee in agriculture is 6,899 EUR;



- **Impact of COVID-19**

The year 2020 is marked by the outbreak of the COVID-19 pandemic, which, in combination with strict health and protection measures, had a markedly negative impact on economic activity. Situation in Slovenia is similar as in other EU countries. The most pronounced decline in economic activity was in the second and last quarters, when the operation of non-essential service activities came to a halt and the activity of industry, construction and other service activities became more difficult. Numerous aid packages have been designed for various economic areas to mitigate the negative effects of the epidemic, but they have not been able to prevent the decline in economic activity, but they have had a significant impact on its depth and the resumption of activities.

According to the Institute of the Republic of Slovenia for Macroeconomic Analysis and Development (IMAD), gross domestic product (GDP) in Slovenia is expected to decrease by 6.7% compared to the previous year (+ 2.4%). The decline in GDP was due to a decline in value added in almost all activities (most significantly in activities related to tourism, sports and culture, as well as in manufacturing and construction). Due to the general impact of the pandemic on the international environment, a decline in exports and imports is also expected.

At the moment is agricultural production affected mainly by the loss of demand and also with loss of export on foreign markets. The most extensive negative consequences of COVID-19 pandemic were mainly in livestock farming, where adaptation to current market conditions is much slower. This led to overgrowth of animals, restriction or even interruption of sales channels for agricultural products. The most affected sectors were beef production, sheep breeding and pig breeding, for which the state also adopted various financial assistance measures. Among the crop sectors, the negative consequences were mainly suffered by the wine sector, which faced a large increase in wine stocks due to declining sales volumes. To limit these consequences, the Ministry of Agriculture, Forestry and Food, in cooperation with other ministries, has developed a series of intervention measures. Some measures were more general and targeted the agricultural sector as a whole, and more specifically the most affected sectors, which suffered more than a 20% loss of income.

- **Economic results of Agriculture in 2020**

The first estimates of the indicators of economic accounts for agriculture, prepared by Agricultural institute of Slovenia, show that agricultural incomes in 2020 will be significantly higher than in the year before and also five years average. According to initial estimates, the improvement in economic results is mainly due to a larger physical volume of crop production at slightly lower prices at the aggregate level. Very good harvests were especially in fruit growing, in the production of cereals and potatoes. Due to the larger area, the production of oilseeds also increased.

Compared to the previous year, according to initial estimates, the physical volume of agricultural production increased (crop production around 8%, livestock production around 1%), with prices of both crop products and livestock prices at the aggregate level are lower than in the year before. With a slightly larger volume, the value of intermediate consumption will be lower in real terms than in the previous year due to lower values of most types of costs, especially energy, fertilizers, feed, veterinary expenditure and seeds and seedlings. In livestock farming, due to the more available

home-grown feed, the need for strong feed purchased is also lower. According to initial estimates, the factor income of agriculture will increase by more than 5% in real terms compared to the previous year (2019) and will be above the level of the last five-year average. On average, budgetary support is an important element of income in agriculture at the level of agricultural holdings. Incomes are most strongly influenced by direct payments and also rural development programme (especially payments for LFA, AGRI-ENVIRONMENT-CLIMATE PAYMENTS and investments in the modernization of agricultural production).

Livestock

For the livestock production, based on the estimates of the available data show that the total production volume increased slightly in 2020 (+1%). The total volume of agricultural production will increase (by about 5%) compared to 2019 and will exceed the average level of the last five years. An increase in the volume of production is expected in the production of cattle and poultry, and a decrease in the production of pigs and small ruminants. The production of cow's milk will also be slightly higher than in 2019, while the production of eggs will remain at the level of the previous year. Compared to the very poor 2019 harvest, honey production has increased (+1/5), but with around 780 tonnes, 2020 year's harvest will still be significantly below the 2015-2019 average.

According to the first estimates of statistics, the prices of animals and animal products will decrease noticeably, they will be nominally lower by 3.8% (in real terms -4.1%) and will most likely be among the lowest in the last ten years. Noticeably lower prices are expected, especially for beef, cow's milk and poultry. For other important animal products, slightly higher purchase prices are expected (especially lamb, pigs and table eggs).

Arable

Even though weather conditions were not optimal in 2020, the yields of cereals were significantly higher than in 2019 (+14 %) and as much as a fifth above the average of the last five years (2015-2019). The expected yield of oilseeds is also higher, which is 3% higher than in the previous year due to the significantly larger areas of the most important oilseeds (pumpkins for oil, oilseed rape and soybeans).

At the aggregate level crop production will increase by about a tenth compared to the previous year, mainly due to higher yields in fruit growing, cereals and potatoes.

According to initial estimates, the prices of crop products in 2020 are at a very similar level as in 2019, or are only slightly higher, by 0.8% in nominal terms. Higher prices are expected mainly for fruit (+ 22.9%) and maize for grain (+ 10.3%). Lower prices are forecast for potatoes (-10.7%) and wheat (-8.0%). For other important crop products, similar prices are expected as in the previous year, or the price deviation from 2019 will be less pronounced.

Horticulture

- **Soft Fruit**

The fruit yield in 2020 was very good after the extremely modest 2019 harvest. According to estimates based on provisional data, in 2020, intensive orchards and extensive orchards will harvest about 70% more fruit than in 2019, and the yield is expected to be about 15% above the average for the period 2011-2015 (period without extreme harvests 2016, 2017 and 2018). In extensive orchards, the harvest was very good, with about three times as much harvest as in 2019.

In intensive orchards, almost a quarter more fruit is expected to be harvested than in 2019, which is about as much as the average for the period 2011-2015. In intensive plantations, seedlings produced very well, while the yield of some species of fruit was very small due to frost.

- **Vegetables**

The changing weather conditions affected the production of vegetables in 2020 in very different ways. On average the vegetable harvest is likely to be slightly better than in the unfavourable year before. Favourable conditions were for the production of lettuce and cabbage. The unfavourable start of the growing season (outdoors) was due to the cold May for fruit trees and legumes.

Current Research Issues

- CAP reform and impact assessment (IA) with farm level modelling.
- Developing “Farm manager”, an on-line system for preparing calculations for different production activities.
- Much of the activity focuses on the forthcoming new programming period of the Common Agricultural Policy (CAP) 2021-2027;
- In 2020 the emphasis was on the preparation of the CAP Strategic Plan (situation analysis, SWOT analysis, identification of needs, implementation of public debates, etc.)

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Jaka Zgajnar – May 2021



South Africa

Weather

- The 2020 winter, as well as 2020/21 summer rainfall returned to more normal patterns after years of sever drought.
- There are however still parts of the country, especially the western sides of the Northern- and Eastern Cape provinces which are still crippled by drought conditions.
- The summer crop area did receive sufficient rain in most areas and we expect a maize crop of more than 16 mil ton (5.19% more than the previous year).

Agriculture Economic Climate

- The economic condition in agriculture are improving as weather patterns return closer to normal.
- Debt levels in agriculture are, however, still on its highest ever will take some time to return to lower levels.
- Policy uncertainty about the final outcomes of land expropriation without compensation limits investment in agriculture.
- The minimum wage for the agricultural sector was made the same as for the private sector, which means a wage increase of 16%.
- Food prices increase drastically over the last year.

Livestock

- **Red Meat**
 - Red meat prices in the second halve of 2020 and first halve of 2021 increased sharp with higher demand.
 - The closing of restaurants with the Covid lockdown forced a new habit on consumers to cook and eat at home and butcheries are busier that ever.
 - A2 beef and lamb carcass prices was respectively 16% and 13% higher in April 2021, compared to April 2020.
- **Poultry**
 - The poultry market also recovered well with prices between 15% and 18% higher that a year ago.
- **Pork**
 - The pork market recovered well after some difficult year that forced smaller producers out of the market. The pork price was 41% higher in April 2021 than in April 2020.

Arable

• Summer crops

- The 2020/21 summer crop production looks promising in most parts of the country, given the favourable weather conditions since the onset of the production season. However, certain parts of the free state have reported the occurrence of flood damage and experiencing problems with pollination with maize crops.
- The government's Crop Estimates Committee (CEC) expects a total maize harvest of 16 095 590 tons, which is 5.19% more than the 2019/20 maize harvest.
- Domestic summer Grain price is at a high level regardless of the large harvest that is expected. The increase in prices can be attributed to high grain prices on the international grain market supported by dry conditions in the U.S. and Brazil and strong demand from China.
- The estimated Soybean production for the 2020/21 production year will increase by 44% to a historical high of 1.79 million tonnes due to a record planted area and favourable weather conditions.
- Due to the increase in local production, it is expected that soybean meal imports will drop to the lowest level in the past two decades at 350,000 tonnes for both 2020-21 marketing years.

- The following data were obtained from the latest crop estimates:

Crop	Final crop (Tons)		change
	2020	2021	
White maize	8 547 500	8 933 690	4.5%
Yellow maize	6 752 500	7 161 900	6.1%
Sunflower	788 500	696 290	-11.7%
Soybeans	1 245 500	1 793 650	44%

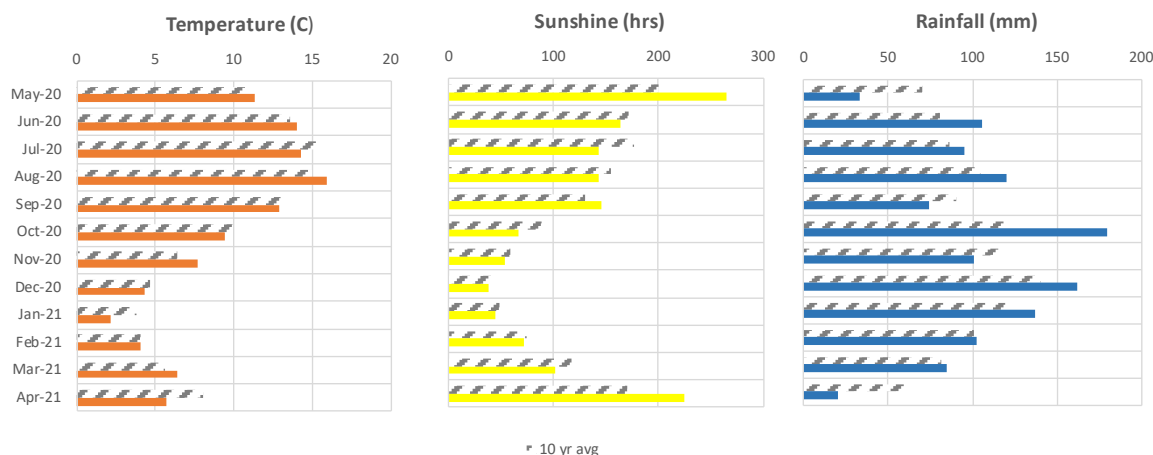
• Winter crops

- Wheat: In the 2021 production season, producers intend to plant 512 500 ha of wheat, which is 0.53% more compared to the 2020 season
- The largest production area, the Western Cape, is expected to plant 352 000 ha of wheat in the 2021 season, which is 26 00 ha more than the 2020 season.
- Domestic wheat prices are at a high level and are currently supported by prolonged drought conditions in parts of the United States and the European Union have.

Frikkie Maré – May 2021

United Kingdom

UK Weather



Agriculture Economic Climate

1. Agricultural Support

- The Common Agricultural policy of the EU no longer applies to the UK. The devolved regions (Scotland, England, Wales and Northern Ireland) are in the process of setting their own Agricultural support structures. My view is that a lot of the Scottish, English and Welsh hill land will go to new woodland, peatland restoration and carbon credit harvesting.
- Scotland are consulting with their key agricultural sectors as a first step towards a new agricultural support policy. In the meantime, they are maintaining similar levels of payment to the EU Common Agricultural Policy. *Further information can be found at [Signalling a sustainable future for farming and food production - gov.scot](http://www.gov.scot) (www.gov.scot)*
- Wales are working on a Sustainable Farming Scheme as a replacement. *Further information can be found at [Agriculture: spring update 2021 | GOV.WALES](https://gov.wales)*

2. English Farm Support

- Direct aid in the form of Basic Farm Payments is now being progressively phased out reducing to zero by 2028. Whilst overall funding is likely to be similar in the short term, the industry will have to deliver much more to achieve it.
- Removing area-based subsidies will be a huge change to the English farming business with the consequences for bottom line profit the final straw for some and yet others will see great opportunity. Reduced cash in the system will also impact on much of the historic supply trade that benefited from recycled farm subsidies.
- Future agricultural support will be based on the principle of payments of public money in return for the provision of public goods. It will largely fall under the heading of



Environmental Land Management. This has three main components which are currently being piloted:

- i. Sustainable Farming Incentive – this will be similar to the Countryside stewardship scheme and focus on wildlife habitats as well as improving air, soil, and water pollution at a farm level. It is designed to be a relatively straight forward application process and therefore widely available.
 - ii. Local Nature Recovery – is aimed at more detailed programs encouraging local farms to work together to deliver improved biodiversity, flood management, carbon storage and local landscape enhancements.
 - iii. Landscape Recovery – is on a much larger scale that involves several farms for specific project. It is looking to focus on large woodland plantings, peatland restoration and coastal habitats.
 - iv. Further Information can be found at [Environmental Land Management scheme: overview - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/consultations/environmental-land-management-scheme-overview)
- d. Additional Capital Grant funding will be available from:
- i. Farming Investment Fund - to cover technology and transformation.
 - ii. Slurry Investment Scheme – to reduce emissions and pollution risk.
- e. There will also be funding for Skills & Training:
- i. Farm Resilience Scheme – business planning advice
 - ii. Institute for Agriculture and Horticulture – a new professional body to raise management standards, sector productivity and promote agricultural careers.
 - iii. Key Performance Indicators – promoter benchmarking to improve productivity.
 - iv. Research and Development - to promote industry innovation.
- f. Other Support:
- i. Farming in Protected landscapes – Areas of outstanding Natural beauty and National Parks
 - ii. Animal Welfare – disease eradication and higher welfare standards
 - iii. New Entrants

3. Farm Business Income (FBS 2019/20)

- a. Average Farm Business Income on dairy farms increased by 6 percent to £84,800 in 2019/20. Within the agriculture cost centre production rose by 2 percent (reflecting a rise in average dairy cow numbers rather than yield) although the average milk price was 29.7 pence per litre, a 2 percent fall on the previous year. It is important to note that there is a wide variation in milk prices with some farmers receiving considerably more or less than the average. Revenue from other cattle enterprises, important to many dairy farms, increased by 4 percent. Variable costs fell by 2 percent, most notably for feed reflecting lower cereal and straw prices and, for some, a greater quantity of home-grown grass and silage compared to 2018. These decreases were offset by a rise in fixed costs, particularly machinery depreciation, rent and general farming costs. Income from diversification activities fell by around a fifth while the average Basic Payment was little changed on 2018/19. On dairy farms income from agri environment



activities rose by about a quarter to £4,100. Average Farm Business Income on dairy farms for 2020/21 is expected to decrease by 10 percent to £76,000.

- b. On lowland grazing livestock farms average income fell by a quarter in 2019/20 to £9,400, which is the lowest average income for this farm type since 2006/07. Cattle output, a main revenue source, was a major contributing factor, falling by 10 percent as a result of lower prices for both fat and store cattle (reflecting plentiful supplies) and a decrease in average cattle numbers per farm. Output from sheep and crop enterprises also fell by 8 and 13 percent respectively. Reductions in both fixed and variable agricultural costs were insufficient to offset the drop in output; overall, the contribution to Farm Business Income from agricultural activities on this type of farm fell to minus £16,300. The average Basic Payment was virtually unchanged on 2018/19 while income from agri-environment schemes increase by 41 percent. Income from diversified activities reduced by 19 percent, primarily due to decreases in food processing and retailing. On lowland grazing livestock farms, average income is predicted to rise by 78 percent in 2020/21 to £17,000.
- c. For LFA grazing livestock farms average income was £22,800, an increase of nearly 50 percent compared to 2018/19. Input costs fell by 5 percent largely driven by substantially reduced costs for purchased feed and fodder. As on lowland farms, output from cattle enterprises fell, but sheep output increased by 7 percent with higher average prices for breeding ewes and hogs, an important source of income on these farms, a key factor. Output from crop 8 enterprises also rose. These factors combined resulted in the overall agricultural output remaining virtually unchanged compared to 2018/19, though income from agricultural activities remained negative. Income from agri-environment schemes increased by 9 percent and accounted for half of Farm Business Income on this farm type while the average Basic Payment rose by 6 percent. In 2020/21, the average income on LFA grazing livestock farms is forecast to increase by 42 percent to £32,000.
- d. For specialist pig farms average income increased by just over a quarter to £37,700. Whilst pig prices firmed throughout 2019 against a backdrop of African Swine Fever in China and elsewhere, a combination of reduced throughput and a fall in the closing valuation (due to numbers lower than at the beginning of the year) resulted in a decrease in pig output of 7 percent. This was more than offset by a reduction in both fixed and variable costs, particularly feed, machinery, labour and land costs. For those pig farms who also grew crops, there was an increase in crop enterprise output of 7 percent. Overall, there was an average positive return of £15,000 from the agricultural cost centre compared to minus £1,000 in 2018/19. Income from diversification activities fell, while there were small increases to both agri environment payments and the Basic Payment. Forecasts for specialist pig farms in 2020/21 are forecast to fall to around £5,000.
- e. At £87,900 the average income of specialist poultry farms was 18 percent higher than in 2018/19. Output from eggs rose by 60 percent compared to 2018/19 driven by an increase in quantity rather than price (which fell). In terms of quantity, this is in line with the trend seen in UK statistics for production, but not for price where UK statistics show a small increase. At the same time there was a drop in output from birds for poultry meat, which fell by nearly a quarter. Combined, these factors meant agricultural output decreased by 6 percent, but this was more than offset by a substantial fall in

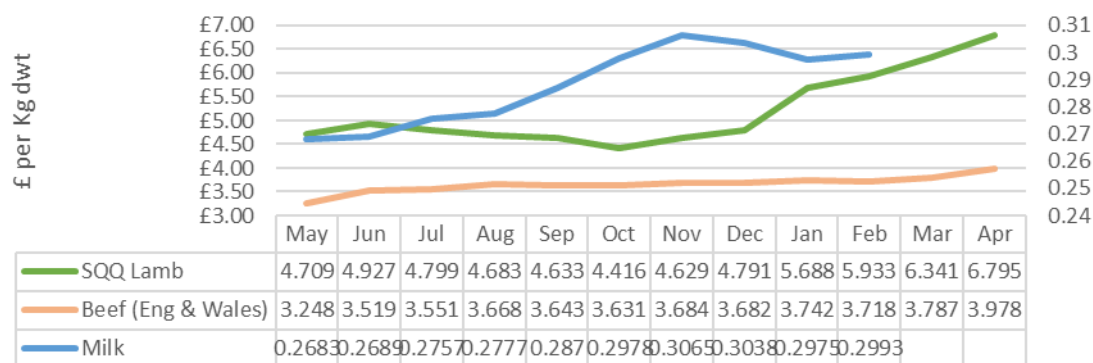


costs. Both variable and fixed costs went down, particularly for feed, veterinary fees, medicines, and other livestock costs (partially reflecting lower numbers) and also for machinery and rent. Diversified output rose by 18 percent with marked increases for rental income, food processing and retailing and tourism. On this type of farm average income for 2020/21 is expected to be around £130,000

- f. On cereal farms, average Farm Business Income decreased by 7 percent in 2019/20 to £62,800. This was primarily driven by an increase in agricultural costs; variable costs rose by 14 percent, with increases particularly to fertilisers and crop protection, while fixed costs went up by 7 percent. Higher costs were partially offset by a 7 percent rise in crop output. Average crop areas increased for wheat, barley, pulses and sugar beet. Growing conditions were also generally more favourable than 2018 leading to higher yields, while prices (which started the period strongly before gradually falling) tended to be lower. Overall, cereal farms achieved a positive return on their agricultural activities of just £780 compared to £10,200 in 2018/19. Income from diversified activities, particularly renting out buildings, continued to be a major source of income, and rose by 8 percent. The Basic Payment increased by 5 percent accounting for just under two thirds of total Farm Business Income on this type of farm. The average income on cereal farms is forecast to fall by around 43 percent in 2020/21 to £36,000.
- g. On general cropping farms average income fell by just over a fifth to £84,400 (Table 1.1) with a decrease in agricultural output the main driver. As with cereal farms, plentiful supplies following a more successful harvest contributed to lower prices which offset higher yields. Oilseed rape was an exception with prices remaining firm but yield and area decreased reflecting pest issues, particularly Cabbage stem flea beetle. Other crops, such as wheat, pulses and sugar beet also saw reductions in average area. Agricultural costs rose by 1 percent overall compared to 2018/19 with increases in variable costs (notably other crop costs and casual labour) mitigated by a fall in fixed costs of 5 percent. On average there was a positive return of £16,000 from the agricultural cost centre compared to £38,900 in 2018/19. Output from agri-environment activities rose by nearly 50 percent while the average Basic Payment fell by 4 percent to £43,400, partially influenced by a slightly smaller average farm area. On general cropping farms, average Farm Business Income is forecast to decrease by just over a third to £55,000 in 2020/21.
- h. For horticulture farms average Farm Business Income fell by 19 percent between 2018/19 and 2019/20 to £42,400. Agricultural costs increased by nearly a third. Variable costs rose by 45 percent, notably for seed, other crop costs and casual labour, while increases to machinery running costs and general farming costs were factors in an 11 percent rise to fixed costs. These increases were only partly mitigated by a rise in agricultural output of 21 percent, the result of higher output from glasshouse and outdoor flowers, nursery stock, soft fruit and top fruit. Income from diversified activities, an important source of revenue for horticulture farms, increased by 42 percent with food processing and retailing activities accounting for most of the rise.

Livestock

1. Livestock Sale Prices (2020/21)



2. Dairy

- Cold weather and slow grass growth have checked milk production.
- Milk price remains good after the large (15%) increase earlier in the year of the Global Dairy Trade index
- The proportion of milk sold in bottles has fallen, estimated at 44% in 2020. If those trends continue, by 2030 only around 38% of milk available for processing is expected to end up in a bottle.
- Cheese, on the other hand, has risen over the last 10 years and further growth is expected. Cheddar, in particular, has seen rapid growth, with 21% of milk turned into Cheddar in 2020. With the UK still a net importer of Cheddar, by 2030, we would expect further growth in domestic production, and the share of milk to rise further, up to 24%.
- Yogurt is another area where production has increased, rising 83% between 2015 and 2020. Similar to Cheddar, as we are net importers of yogurt, further domestic production growth in this area is expected.

3. Beef

- Beef prices remain very strong.
- Household purchase of beef is reported to be 12.7% up on volume and 16.4% up on value year on year.
- Deadweight cattle prices rose again in the week ending 24 April, the GB all-prime average gaining a further 2.5p to reach 406.2p/kg. This is a far cry from a year ago, when the market was struggling to balance the carcass, as panicking consumers filled their boots (and freezers) with mince. A surplus of top cuts built up in cold storage, hurting carcass values.
- Since then, the market has gone from strength to strength with even more volume than usual moving through retail channels. This trend is set to reverse this year however, as foodservice outlets reopen, and some demand shifts back out of the home. The foodservice market is fertile territory for imported beef, and so demand for British product may start to wane.

4. Pigs

- Pig prices are struggling (139.41p/kg) and currently sit 23.81p lower than the same period last year.



- b. Processing capacity dipped during the Covid 19 restrictions and caused a backlog of pigs on farm.
- c. Chinas ban on German imports due to ASF has put pressure on European markets which has had an effect on the UK
- d. Slaughter numbers are currently 12% up on the previous year and 16% above the 5-year average.

5. Sheep

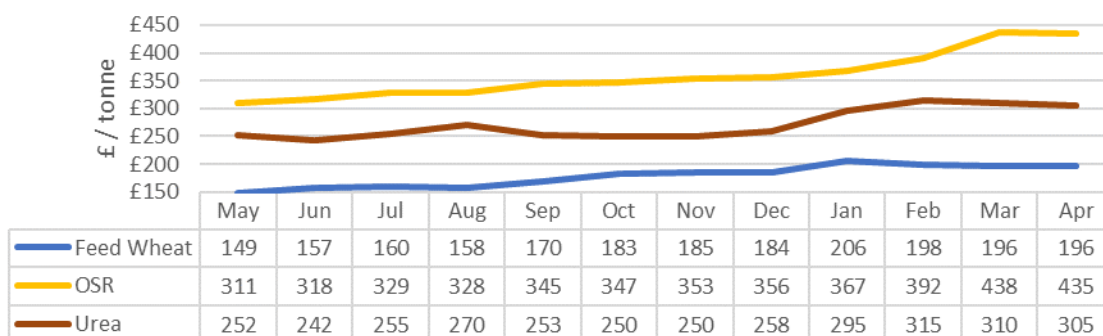
- a. Deadweight prices have reached new highs and are currently 80p per kg above the 5-year average.
- b. Household purchase of Lamb increased in volume by 16.4% and value by 21.7%
- c. GB deadweight prices have exceeded both French and German prices in recent weeks, with all series continuing to climb over the past month. This comes as supply remains tight both domestically and on the continent.
- d. Reports suggest we could see an increase in supplies on the continent soon, and demand continues to be challenged by COVID-19 restrictions. This indicates we could see GB prices drop back further in coming weeks.

6. Poultry

- a. Outbreaks of Avian Influenza gave rise to restrictions from November 2020 to April 2021 preventing all poultry from outdoor access.
- b. Sales of locally produced eggs, chickens and turkeys have remained strong throughout the pandemic. Home cooking and provenance have been the key drivers.
- c. Butchers' sale of all meat and poultry were up 22% over this last year.

Arable

1. Sale / Purchase prices (2020/2021)



2. Cereals

- a. Winter cereals were generally well-established last autumn.
- b. Spring has been very dry and cold and provided good operational if not good plant establishment conditions.
- c. Despite recent rain, cold temperatures remain the limiting factor on crop growth. Along with wider northern hemisphere drought, prices are progressively buoyant.

g. Oilseeds

- a. With disappointing yields in the south and midlands due to flea beetle damage last year (neonicotinoid ban related), a shortage of tonnage has seen spot prices currently in excess of £500 /t

h. Sugar Beet

- a. With the EU ban on neonicotinoids, virus yellows hit sugar beet yields badly this last year (-25%). Consequently, crop area is down this year.
- b. Neonicotinoids have been authorised by DEFRA for emergency use on the 2021 sugar beet crop. With the cold spring it is hoped that aphid numbers this year are lower and along with good establishment, expectations are for more normal yields.
- c. In response to poor yields last year, British Sugar have increased the contract price from £20.3 / t to £21.10 / t

i. Potatoes

- a. With the ban on the anti-sprouting CIPC chemical, the potato market is very dependent on quality – good quality is commanding high prices whilst poor quality is proving difficult to sell.
- b. Demand for frozen processed product remains weak due to the continued closure of restaurants. Fish and Chip shop trade however remains stronger.
- c. Plantings have been delayed due to the cold spring with estimates of a 5% reduction giving rise to the lowest acreage of potatoes ever.
- d. Brexit is having an impact with seed exports have been banned and the trade figures for January showing an 80% reduction in exports. Imports are also down.
- e. Levy payers have voted to discontinue the AHDB potato levy (£42/ha)

j. Oats

- a. A new factory (Oatly) has opened with the aim of producing 300 million litres of oat drinks per year. It is hoped this will boost the growing of oats in the

Horticulture

7. Soft Fruit & Vegetables

- a. Only 11% of the seasonal workers required for harvesting fruit, vegetables and flowers are UK residents. Free movement of Labour was of value whilst in the EU which has now come to an end.
- b. Covid 19 has increased employment costs in this sector between 6% and 15%.
Contributory factors are:
 - Worker availability,
 - Training,
 - Accommodation,
 - Transport and logistics,
 - Operations



- c. 'Vydate' is no longer authorised for use in the UK leaving few options to control Potato Cyst Nematode. It is also used in the growing of carrots, parsnips, onions, garlic, and shallots. Growers are appealing for emergency approval, but nothing has been forthcoming as yet.

Other Issues

8. AHDB Marketing – 'We Eat Balanced'.

- a. Consumers are rethinking their attitudes towards red meat and dairy produced in Britain as the result of AHDB's ground-breaking 'We Eat Balanced' campaign launched earlier this year.
- b. The £1.5M campaign which ran across TV, social media and print in January and February was a first for British farming. Aimed at a target audience of meat and dairy 'waverers', it aimed to remind and reassure consumers of the role red meat and dairy can play in a balanced diet, and the sustainability of livestock production in Britain.
- c. It focused on three key messages – red meat and dairy as a source of Vitamin B12, Britain's world class production standards and that red meat and dairy from Britain is amongst the most sustainable in the world.
- d. Six per cent more consumers in the target audience felt red meat could form part of a healthy, balanced diet.
- e. Nine per cent more consumers also revealed they feel the same about dairy.
- f. The target audience recorded an eight per cent increase in seeing dairy as produced in both a natural and a sustainable way.
- g. There is also a four per cent increase in seeing red meat as providing a range of vitamins and minerals.
- h. AHDB findings support that consumers want to hear more from farmers and how they produce our food.
- i. The campaign also showed a shift in consumer attitudes around the sustainability of red meat produced in Britain versus imported product. When prompted, there was a 9% positive shift in target audience consumers believing that home-produced red meat was produced in a more sustainable way compared to red meat from overseas.
- j. Over the course of seven weeks, 'We Eat Balanced' generated 80 million impressions on social media, reaching ten million consumers. It also reached six million people in print and 2.5 million through video on demand.
- k. The advertising was rolled out against a background of continuing strong sales of meat and dairy during January. Retail volumes for total red meat were up 15.1 per cent in the 4 w/e 24 January 2021 according to Kantar and dairy also showed a strong performance, up 11.8 per cent in volume compared with last January.

Trevor Atkinson – May 2021



United States

General

2020 was a hard year in many ways but generous government support programs led to record overall farm incomes. Continuing low interest rates also were beneficial to the farm economy. Both high incomes and low interest rates have provided support for land prices, with increases seen in many areas and especially in corn belt states.

Last year's supply chain disruptions are in the rearview window with some lessons learned that hopefully improve the system going ahead. Some employee health concerns continue to surface related to practices in meat packing facilities but are not as prevalent as last year.

With a change of administration at the federal level in January, policy discussions have taken a different turn. USDA priorities are now:

- Containing the COVID-19 pandemic
- Ensuring racial justice and equity
- Ensuring food and nutrition security
- Rebuilding the rural economy
- Addressing the impacts of climate change.

Though it doesn't show up explicitly in the list, broadband access in rural areas as well as underserved urban communities has been elevated as a concern as a result of the pandemic and is on legislative agendas at both federal and state levels.

A number of states face budget challenges as a result of the pandemic. Oklahoma's economy fared fairly well and the coming year's budget is expected to be level with the previous year with no cuts to higher education or Extension anticipated. Higher oil and gas prices are a benefit to us as an energy-producing state.

COVID

While concerns about the potential spread of variants is front of mind for many, a growing percent of our population across the U.S. has received at least one dose of a vaccine. Rural areas frequently have a lower rate of vaccination at this point, but efforts are underway to overcome both access issues and concerns about immunization. The Center for Disease Control (CDC) is providing some funding to all U.S. land grant universities for immunization education.

Oklahoma was one of the states who never had a mask mandate though numerous cities did, including both Tulsa and Oklahoma City which account for roughly 2/3 of the state's population. All remaining state COVID-related restrictions were removed in early May. Stillwater, home to Oklahoma State University (OSU), has a mask mandate which is expected to expire later this month. OSU managed to have classes in person both fall and spring semesters at limited capacity. We had an outdoor spring graduation and anticipate that out-of-state travel restrictions may be lifted soon.



Cereals

Corn planting is winding up and cotton planting is underway. Wheat harvest will begin soon in south Texas. The expected wheat yield and harvest acreage was impacted by late season record low temperatures this spring as well as drought. Overall, in early May, the U.S. winter wheat crop was rated at 48 percent good to excellent, 33 percent fair and 19 percent poor to very poor. That is helped boost wheat prices—it's been a while since wheat prices were above \$7/bushel.

South Texas citrus crops were greatly impacted by the very cold weather in February, with much lost.

Livestock

Beef prices have rebounded from lows with record exports in March helping provide support. U.S. pasture and range conditions were rated 22 percent good to excellent, 31 percent fair and 45 percent poor to very poor, considerably worse than this time last year. Drought is a looming concern for the western and southwestern U.S., leading to some cow herd reductions.

OSU's livestock marketing specialist notes that although cattle numbers peaked cyclically in 2019 following herd expansion from 2014 to 2019, feedlot production is just now at a peak in early 2021, partly as a result of pandemic delays in 2020. The February 1, 2021 feedlot inventory was the highest of any month since February 2006. Saturday steer and heifer slaughter has accounted for 10 percent of weekly slaughter in 2021. Seasonal demand for beef increases in summer pushing slaughter needs but it will be a challenge to expand or push more Saturday slaughter. It is expected that it will take the remainder of the second quarter and likely much of the third quarter of the year to relieve the capacity constraints that are limiting the fed cattle market. I would note that several Native American tribes in Oklahoma used COVID funds to add cattle harvest capacity to better serve tribal members and enhance food security.

In the Flint Hills of Kansas, the tall grass prairie pastures have been burned, which is a cultural practice, to remove last year's dead grass and reduce woody shrubs (sumac and gray leaf dogwood) and red cedar trees in these pastures. The photos below illustrate pasture preparation: immediately after a burn and Guido's grandson (4th gen) learning the noble trade of "fixin' fence".



Flint Hills, Kansas, once a vast inland sea with limestone layers outcropping seen on blackened hills.



Fixin' fence in mid-April 2021...cattle to be turned to pasture early May.



Tax

As mentioned above, a new administration was inaugurated in January 2021, so changes in tax policies to pay for COVID relief, infrastructure repair and enhancement, and low to middle class assistance are in the wind. Presently the new administration proposes to increase upper tax rates on corporations and high-income individuals.

In addition, the estate tax is proposed to change, which under present law allows a 2021 exclusion amount of \$11.7 million per decedent. At the 2021 level, it is estimated that less than one half of one percent of all estates would be subject to any tax. Proposals are in play to reduce the exclusion amount to as low as \$1 million. Another proposal sets the exclusion amount to somewhere in the middle. At the \$1 million value, many farms become subject to the estate tax and past planning for succession will need to be revisited due to considerable risk to the plan.

Further, there is proposed discussion to eliminate “step-up” in basis to fair market value on the date of death of the decedent, undoing nearly 100 years of a useful succession management tool.

At the time of this writing, these are only proposals, but production agriculture is watching these developments very closely. Only time will tell what the outcome will be (as final as Congress makes it).

Other

The Ohio State University

OSU has announced a new president. Dr. Kayse Shrum, currently the president of the OSU-Center for Health Sciences in Tulsa, will become the University’s first female president.

Timber

On May 7, 2021, *The Kiplinger Letter* reported that lumber prices have increased by 360% over the past year. Depending on market, this represents a \$35,000 to \$50,000 increase in the cost of new construction for the “average” new home. It is projected that once the lumber mills process and catch up with outstanding orders the price of lumber may be fall by 25% from current high by October 2021.



As an example: half-inch-oriented strand board (OSB) sold nearly 6 months ago for ~\$10 per 4 foot by 8-foot sheet. The picture below taken May 2, 2021 shows a price of \$43.55, (in the same store on May 9, 2021 the price had increased to \$53 per sheet).

Guido van der Hoeven and Damona Doye – May 2021



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