

GLOBAL FEED MARKET COMMENT

As 2021 draws to a close, the global economy has been battered by inflation and lock downs. Low labour availability, high energy costs, the domination of China in the market and endless outbreaks of viruses in one species or another have all been continual themes this year.

Going forward, looking for the sunshine between the gloom, new opportunities are arising driven by a need to improve the situation. Science offers a route to manage viruses and to create a more efficient, environmentally sensitive industry. The growth of alternative feed proteins such as black fly meal, gene editing to allow sexing of chicks, carbon reducing energy solutions to allow factories and logistics to become carbon neutral. This is where the good news stories are emerging.

Regionally, many of the feed and meat global companies continue to pin their hopes on the rising GDP in Asia.

The pandemic hasn't been bad news for all feed and meat companies; indeed, many have prospered. According to data released by the US White House, four of the biggest meat-processing companies, using their market power in the highly consolidated US market to drive up meat prices, have tripled their own net profit margins since the pandemic started.

Financial statements of the meat-processing companies – which control 55-85% of the market for beef, poultry and pork – contradict claims that rising meat prices were caused by higher labour or transportation costs. White House officials studied earnings statements from Tyson Foods Inc, the chicken producer and biggest US meat company by sales; Brazil-based JBS SA, the world's biggest meatpacker; Brazilian beef producer Marfrig Global Foods SA which owns most of National Beef Packing Company (NBEEF.UL); and Seaboard Corp RIC (SEB.A). Those statements showed a 120% collective jump in their gross profits since the pandemic and a 500% increase in net income, the analysis shows. These companies recently announced \$1bn in new dividends and stock buybacks, on top of the more than \$3bn they paid to shareholders since the pandemic began.

EUROPE

EU

The EU pig price remains low but is stabilizing. In November, the EU pig price fell by less than €1/100kg and has remained steady for the past three weeks. Of the major producers, Spain, a key exporter to countries outside the bloc, recorded the largest decline (€4/100kg).

The EU representative organisations for Algae (EABA) yeast (CIFALEC) and insects for feed (IPIFF) are joining forces to lobby for stronger uptake by the feed industry to reduce dependency on soybean meal.

The EU's cereal consumption is forecast to fall by 2.7% due to falling feed use.

According to the recently published EU agricultural outlook for markets, income and environment growth in the poultry sector is to slow. The region's growth in consumption of poultry meat is forecast to rise by around 0.6%. In 10 years' time, per capita consumption is expected to be 24.8kg (54.7lb) — up from the current average of 23.5kg. This growth will be driven by the relatively healthy image of poultry meat, convenience

in preparation, and its acceptance by all religions. For comparison, over the past decade, consumption of poultry meat in the EU has been growing at around 2% annually.

As well as health and convenience, European consumer choices for meat will increasingly be guided by the origin and production method, according to the EC. By the end of the outlook period, EC forecasts average per capita meat consumption in the EU will be around 67kg. This compares with almost 70kg in 2018.

UK

The UK is suffering a big H5N1 outbreak with over 60 cases confirmed since the start of November. Lincolnshire and North Yorkshire are the worst-affected areas, with at least nine outbreaks recorded in each county.

The British Home Office has announced it will allow 30,000 overseas workers to enter the UK for up to six months for harvesting in 2022. Although this helps with addressing labour shortages in the fruit, veg and flower sectors it does not address similar shortages in meat processing plants.

Cranswick plc revenue amounted to £993.1m (\$1.31bn) for the 26-week period to 25 September 2021. This figure is equivalent to a 6.6% increase year-on-year, and 6.4% on a like-for-like basis. Pre-tax profit was reported as £68.3m — an increase of 12.5%. This performance helped drive earnings per share up by 11.5%. With its latest half-year statement, Cranswick reported it is managing both cost inflation, as well as labour and supply chain challenges.

GLW Feeds, the family run livestock and feed manufacturer has

refinanced with HSBC with additional capital for new machinery.

10 free-range egg farms supplying Morrisons are to feed their chickens larvae from 'mini-insect' farms (ten X1 containers). The larvae will be supplemented with beans, peas and sunflower seeds. The efforts are to reduce use of soybeans in chicken diets. The larvae are fed Morrisons fruit and veg waste, thus creating a 'circular waste' feeding scheme.

NETHERLANDS

De Heus Vietnam and Hung Nhon Group have signed an investment agreement to build a pig breeding complex in Kon Tum province. The project includes a 2500-head breeder farm of GGP and GP pigs,

which is expected to supply the market with about 24,000 PS sows every year. It also includes a commercial farming area and a slaughterhouse. The facility is one of three projects in the Central

Highlands undertaken by the two companies to produce piglets and commercial pigs.

Nutreco's acquisition of Danish Nutrimin has been finalised giving

it greater access to not just Scandinavian markets but also eastern Europe and Russia.

Nutreco, via its animal nutrition arm of Trouw Nutrition, has signed

a partnership with Indian dairy-tech start-up Stellapps allowing smallholders to access premixes and additives.

The Dutch feed cooperatives ABZ Diervoeding and De Samenwerking are to merge their operations into a single cooperative with compound feed sales of 700,000 tonnes.

GERMANY

According to the latest agricultural survey the pig population in Germany has fallen further and even more significantly and the number of pig farms is also falling dramatically. As of November 03, 2021, 10.9m fattening pigs were kept, 3.2% less than in May of this year. The number of piglets fell even more sharply, falling by 5.7% to

6.9m animals in the same period. The pig population in Germany is at its lowest level in 25 years.

BASF has released its latest enzyme 'Natupulse TS' which is a mannanase enzyme and is the latest edition to its range of NSP enzymes.

Brenntag is expanding its base in Poland to improve efficiency and increase its capacity. In 2020 Brenntag reported sales of €11.8bn.

FRANCE

InVivo has completed its acquisition of Soufflet, the largest family-owned grain buyer in Europe for €2.2bn.

Bühler is to construct an Insect Plant for Agronutris in France. It will be Agronutris's first commercial scale black soldier fly plant producing 70,000 tonnes by 2023 for the feed industry.

Avril the parent company of Sanders has committed to reducing CO₂ emissions by 60% by 2025 from a 2019 baseline.

LDC Group is said to be searching for family businesses in Poland, Hungary and UK for acquisition. LDC recently announced their half year results for 2021-2022 with revenue up 10.6% y-o-y. For LDC's

international businesses which include Poland, Hungary and Belgium that growth was 19%. LDC has announced the latest in a series of acquisitions over recent years — its majority take-over of Capestone Organic Poultry of the UK.

ITALY

With 207 confirmed outbreaks of highly pathogenic avian influenza (HPAI) in poultry, Italy continues to

be the European country most affected by the disease this winter. However, eight more nations in

the region have also officially registered further cases in commercial birds.

RUSSIA

Cherkizovo is to buy Grupo Fuertes out of its JV of Tambov. Tambov Turkey was formed as a joint

venture between Russia-based Cherkizovo and Grupo Fuertes of

Spain in 2012. Its first stage was launched in 2015.

NORTH AMERICA

US

The family who owns Foster Farms the poultry producer, founded in 1939, are apparently looking for buyers for the business.

During the 20/21 market year, a record 61.65m tonnes of US soybeans were exported with a value of over \$28bn. Much of the increase was driven by China but also some increases to new markets such as Egypt and Ecuador.

AFIA has welcomed the HR4996 ocean shipping reform which is expected to relieve some of the bottlenecks on exports of feed and feed ingredients.

A new container port in Jefferson County, Missouri will offer better distribution to the mid-west. The

new port is expected to come online in Q4 2024.

CGB Enterprises and Minnesota Soybean have formed a joint venture to construct a new soybean processing plant near Casselton, North Dakota with a capacity of 42.5m bushels in year one of operation.

The US agribusiness industries are suffering from a lack of labour. It is thought that the current administration is unlikely to lower its borders to more immigrants but instead to keep the labour supply short thus driving up wages which can keep in pace with current inflation.

Tyson has emphasised its focus on expanding its poultry businesses in

Asia. The businesses Tyson acquired in 2018 in China, Malaysia, Thailand and Australia via Keystone Foods and BRF in Thailand has been successful.

Tyson Foods' main animal proteins offered in international markets are chicken, pork and beef. So deciding which proteins to emphasize through its growth efforts, chicken appeared to be the sensible choice.

R.J. O'Brien & Associates has rolled out the next-generation version of its Hrvyst agricultural technology platform, following the successful pilot of its original platform in 2019. Cloud-based platform enables users to digitally streamline grain origination, merchandising and automated hedging.

ABCDs

ADM has outlined its growth targets to achieve net incremental operating profit growth of \$1.2bn, which translates to high single-digit percentage EPS growth from a current normalized baseline of \$4.00-\$4.50 per share to a new baseline of \$6.00-\$7.00 by 2025. Growth across all three business units, with Nutrition targeting \$1.25-\$1.5bn in operating profit by 2025.

ADM has also completed its JV structuring with Marathon Petroleum. The joint venture, which is named Green Bison Soy Processing

LLC, will own and operate a soybean processing complex in Spiritwood, ND, with ADM owning 75% of the joint venture and MPC owning 25%, as previously announced in August. Expected to be complete in 2023, the \$350m Spiritwood facility will source and process local soybeans and supply the resulting soybean oil exclusively to MPC.

Future Meat Technologies, an industry-leading company developing innovative technology to produce cultivated meat, announced it has raised \$347m in Series B

round of financing. The round was co-led by ADM Ventures, the venture investing arm of ADM.

ADM has also completed the acquisition of the remaining 40% of Invivo Sanpo, a pet nutrition company in Tianjin, China.

Bunge has closed on the refinancing of its \$1.75bn, three-year revolving credit facility. The interest rate under this facility is linked to the company's credit ratings and also to five core sustainability targets, which include the recently established science-based targets

that define Bunge's climate goals within its operations and reinforce the company's commitment to eliminate deforestation in its supply chains by 2025.

Cargill has reached an agreement with UK-based Croda, to acquire the majority of its performance technologies and industrial

chemicals business for \$1.03bn on a cash-free, debt-free basis.

LATAM

BRAZIL

Although Brazilian beef exports to China are still halted (since early September), prices were boosted by the current low supply of slaughter cattle. Besides low animal supply, confirmed by official data on the number of cattle slaughtered in Brazil in 2021, many cattle ranchers who still had animals ready for slaughter kept them on pasture last month. Despite high production costs related to feed, recent rains have favoured the recovery of pastures in most cattle-farming regions.

According to Conab (Brazil's National Company for Food Supply), until the end of the month, soybean sowing had reached 99% of the area in Mato Grosso do Sul, 95% in Minas Gerais, 94% in Goiás, 85% in Tocantins, 83% in São Paulo, 80% in Bahia, 70.7% in Santa Catarina and 50% in Maranhão and Piauí. With almost 100% of the 2020/21 crop already sold, the deals for the 2021/22 season were in progress in November, but still

at a slower pace than that in the same period last year.

BNDES, Brazil's development bank has sold about 70m shares at 38.01 reais each in a block trade raising \$472m. The number of shares is equivalent to about 12% of BNDES's stake in JBS. The sale comes amid expectations of declining profits in the company's US operations. Beef margins in the US are falling more quickly than expected on rising cattle costs and falling wholesale beef prices, pressuring meatpackers shares recently. Still, JBS shares have surged more than 60% this year and are trading near an all-time high. JBS had been seen by analysts as a likely buyer in an eventual BNDES's divestment given it has an active buyback program. JBS shares are trading near their all-time highs in Sao Paulo for BNDES. The move is part of its broader plan to exit investments in publicly traded companies to replenish state coffers. JBS shares are trading near their all-time highs in Sao Paulo.

BRF SA have proposed a capital increase through the issuance of 325m new common shares, potentially raising 6.63bn reais (\$1.17bn). The move prompted analysts and market players to speculate if minority shareholder Marfrig Global Foods SA (MRFG3.SA) intends to acquire a controlling stake in the company without the risk of triggering a poison pill. However, BRF has stated plans to expand its operations and make strategic investments.

BRF and the Qatar Investment Authority (QIA) are in negotiations over QIA's 40% stake of Banvit, the Turkish integrated poultry producer. Apparently, BRF would prefer QIA to maintain its 40% stake in TBQ. However, there are sufficient funds to purchase the shares from QIA should they decide to sell. Earlier in 2021, BRF concluded the sale of animal feed manufacturing and poultry hatchery in Romania. These had been part of its subsidiaries, Banvit and Nutrinvestment.

APAC

CHINA

France has struck a deal with China that would allow pork trade between the two countries to continue should an ASF outbreak happen in the EU country. China is France's biggest pork market. The agreement, which took effect on 13 December, would allow pork exports from unaffected regions of France. France is the first EU country to secure such an agreement with China.

Jilin Meihua, a subsidiary of China's biotechnology company Meihua Group, recently opened a 300,000-ton lysine plant.

A major Covid outbreak in Shangyo and Zhenhai (both districts within Zhejiang) has led to major producers of feed grade Vit A, E, D, biotin and carotenoids being shut down causing a potential global shortage.

The National Bureau of Statistics of China has released data reporting a 2% increase in total grain output. China is claiming to have completed a record corn harvest in 2021. However, according to the USDA, China imported approximately 26m tonnes of corn in 2021. Before 2020 it seldom imported much more than 5m tonnes in a year. China is widely expected to continue to be the world's major buyer for corn, soybeans, wheat, pork, beef and poultry.

INDIA

The mass protest by Indian farmers which camped at Delhi's borders, awaiting the repeal of three agricultural laws the government had pushed through parliament in 2020 apparently without appropriate scrutiny has been successful. On 19 November 2021, the union government decided to repeal the bills, and both houses of Parliament passed the Farm Laws Repeal Bill, 2021 on 29 November.

Following the announcement of the repeal of the farm laws, farmer unions continued with the demand for guaranteed minimum support prices, reminding the government of the aim of doubling farmers' income by 2022.

India has imposed stock holding limits on feed soybean meal effective 23 December 2021 until 30 June 2022. This move will help curb

unfair market practices and enhance the availability of the commodity for animal feed producers and farmers. The government has banned trading for one year in several agricultural futures contracts such as soybeans, wheat and palm oil, in response to concerns about rising food inflation.

INDONESIA

Indonesia Evergreen Feed, a subsidiary of China's Guangdong

Evergreen Group, will build a new feed mill in East Java. The 200,000

tonnes/year feed mill is to cost \$25m.

VIETNAM

Government authorities in Vietnam have culled more than 230,000 pigs due to ASF as of the end of November 2020 as the virus continues to rage across the country. Although this only accounts for 0.8% of the total herd, it is nearly

three times higher than the same period in 2020.

Vietnam's feed material exports reached a record level of \$1.05bn from January to mid-December 2021, according to the General Department of Customs. Shipments

to China, the leading market for Vietnam's feed material exports, grew 75% year-on-year in the January-November period. However, markets that showed the strongest growth were the Philippines and Thailand, rising 165% and 78%, respectively.

The IFC is reviewing a prospective investment of \$52m as redeemable convertible dividend paying preferred shares in the Vietnamese feed and farming group Marvin.

Pig integrator BaF Vietnam has acquired a 99% stake in RicoFeed Tay Ninh JSC for \$6.5m. The acquisition is in line with the company's strategy to expand its capacity to produce breeders and commercial pigs. BaF will also build another feedmill with an annual capacity of

180,000 tonnes to reduce the transportation of inputs at its pig farms. The integrator had 13,000 sows and 220,000 porkers in 2020. It plans to boost the capacity to 45,300 sows and 1.1m porkers by 2024.

AFRICA & MIDDLE EAST

Over the four weeks to 8 December, a total of 112 new HPAI outbreaks were reported to the United Nations' Food and Agriculture Organization (FAO). These outbreaks occurred in four African countries — namely Ghana, Lesotho, Nigeria, and South Africa.

Namibian beef exports to China have resumed in December, according to a press release from the General Administration of Customs of China (GACC). Namibia has supplied beef to the Chinese market since 2019 when the first batch

of products, totalled 21 tonnes of beef. Two Namibian beef plants are allowed so far to export frozen and chilled beef products to China.

In South Africa new provisional anti-dumping duties on chicken imports from Brazil, Denmark, Ireland, Poland and Spain have been imposed. The provisional duties apply to bone-in chicken imports such as leg quarters, drumsticks, thighs and wings from the four EU countries. For Brazil the provisional duties apply to bone-in chicken portions as well as chicken

breasts. The duties range from 6% to 265.1% for various poultry producers from Brazil, from 39% to 67.4% for Denmark, 158.42% for Ireland, 5% to 96.9% from Poland and 3% to 85.8% from Spain. Anti-dumping duties are already in place for bone-in chicken imports from four countries – Germany, the Netherlands, the United Kingdom and the United States. Adding the five new countries to that list gives some protection against dumped imports from nearly all major poultry producing countries.

CRITICAL MARKET DATA

COMMODITY/CURRENCY	PRICE	1-YEAR CHANGE	52-WEEK RANGE
C1 Soybean Meal CBOT 31/12/2021	\$418.00/SHORT TON	-3.02%	308.80-474.10
Corn C.1 CBOT 02/12/2021	\$5.9575/BUSHEL	22.65%	4.730-7.750
FEED WHEAT (ROTTERDAM CIF) 25/12/2021	€296/TONNE	38.32%	
FEED BARLEY (ROTTERDAM CIF) 25/12/2021	€283/TONNE	45.00%	
CME Lean Hogs Futures Front Month 02/12/2021	\$0.827/POUND	22.2%	0.6613-1.2308
US Dollar/Euro FX Cross Rate 31/12/2021	€0.8832	+7.88%	0.8097-0.8939
ICE BRENT CRUDE OIL FRONT MONTH 31/12/2021	\$78.28	+51.35%	50.56-86.70

Notes:

\$ = US Dollars throughout
 unless specified otherwise