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# IMS Economic Insights 20: US and South America

*The 20th IMS Economics Webinar put the spotlight on developments in North and South American meat sectors.*

**Beef** production in the US, the world's largest beef producer, is moving towards the low point in the beef production cycle; Uruguay and Paraguay are also forecasting lower beef output levels. In Argentina, the drought situation is resulting in higher beef production in 2023 followed by lower volumes next year. Higher feed costs, reduced profitability and droughts have been key factors for several countries.

US **pork** production has remained stable in volume terms despite some recent periods of poor profitability; exports have been well maintained and the US has overtaken the EU to become the highest world pork exporter. These are challenging times for many countries' meat industries and Hsin Huang, IMS Secretary General, emphasised the excellent opportunity to meet together and hear from some expert speakers at the forthcoming World Meat Congress in Maastricht.

## Steady Growth in US Pig Herd Productivity

***Karl Skold, Head of Agricultural Economics at JBS*** made a presentation on the outlook for US pork and beef. The US pig breeding herd is in a state of liquidation at the moment due to the loss-making situation for many enterprises although it is mainly the small and medium-sized hog producers which are likely to leave the industry. Pork prices are significantly less than last year, and the benefit of lower feed costs has not sufficiently offset this.

Pork futures market prices suggest further price reductions stretching into the first half of 2024, but the extent of herd liquidation will much depend on the degree to which feed costs will ease further. At present, total pig slaughterings have remained relatively stable due to the significant increases in productivity. This has particularly resulted from improved herd health influenced by the relative freedom from diseases.

## US World's largest Pork Exporter in First half of 2023

Higher feed costs have contributed to a reduction in slaughter weights although these have started to recover in recent weeks. USDA and JBS are predicting production levels in 2023 to be slightly higher than last year and a further small increase in 2024, assuming herd health remains strong. Pork cut-out values have recovered in recent months after having been well below last year's levels earlier in the year. There is an indication of some consumers switching away from beef to pork (and poultrymeat) due to the high beef prices. US pork exports have been increasing and in the first half of 2023 were 10% higher than in January-June 2022. In figures released by the EU Commission, the US was the world's largest exporter in the first half of 2023, having overtaken the EU.

## US Beef Herd Continues to Decline

US beef prices have remained high in recent months mainly due to supply shortages. The average wholesale cut-out price in early September was almost 20% higher than a year ago with some US consumers switching to purchasing cheaper cuts. Live cattle futures indicate that prices are likely to keep increasing until at least August 2024.

Despite the current strong price levels, total cattle numbers have continued declining since the peak reached in 2019 with beef cow numbers in July 2023 showing a decline of 3% compared with July 2022. The reduction has been more related to the drought situation than to higher feed costs. However, signs of future herd expansion are increasingly evident with reductions in cow slaughter and higher heifer retentions likely to be even more prevalent in 2024.

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Current fed cattle slaughter is well down – a reduction of 6% in the eight weeks to early September. Average carcase weights are at similar levels to last year. Both JBS and USDA are predicting major declines in beef production in both 2023 and 2024. For 2023, production is forecast to reduce by 5% compared with the peak level in 2022 and by a further 7% in 2024, when US beef production is likely to return to its lowest level since 2016. US beef exports have also reduced – in the first 7 months of 2023, exports were down by 14%. Imports increased in this period with higher amounts from Australia, New Zealand and Uruguay. Looking further ahead, US beef production can be expected to flatten in 2025 and increase after that.

***Lucas Davila, Market Access and Intelligence Analyst with INAC, Uruguay*** presented the latest situation and outlook for the Uruguayan beef industry. Overall, 83% of all Uruguayan production goes for export compared with under 30% in both Brazil and Argentina. He pointed out, though, that Uruguay still faced relatively high levels of protection in most of their export markets with the exception of China which currently accounts for over 50% of their export volumes.

Despite this, Uruguay was likely to reduce its exports to China in 2023 in contrast to most other major beef exporting countries. There were three main reasons for this:

1. Reduced Uruguayan beef supplies available due to a lower 'extraction' rate in 2023 following high rates applicable in 2021 and 2022 when prices in China were high.
2. The drop in beef prices in China; Uruguay has experienced a decline of 22% in the price of their consignments to China.
3. The strong value of the Uruguayan peso; it is estimated to have been overvalued by as much as 46% against the US$.

## Uruguay's Beef Industry Adding Value to its Exports

In contrast, there was an increase in exports of beef trimmings to the US. The trends in this trade depend greatly on the relative prices for trimmings between the US and Chinese markets. Another growing trend in the Uruguayan beef industry has been the attempt to add value to the beef products sold in export markets. Particularly important was the growth in grain fed beef production with volumes having doubled over the past 10 years. Other enhancements of the product being marketed have included marketing beef with a low carbon footprint, high animal welfare standards and 'open-range'.

Finally, the Brazilian company Minerva has announced its intention to purchase three slaughterhouses in Uruguay from Marfrig. If this goes ahead, Minerva's share of Uruguay slaughterings would account for 43% of throughputs compared to only 25% at present. Locally owned plants account for less than half of total throughputs and there is concern about the potential for reduced competitiveness in the sector.

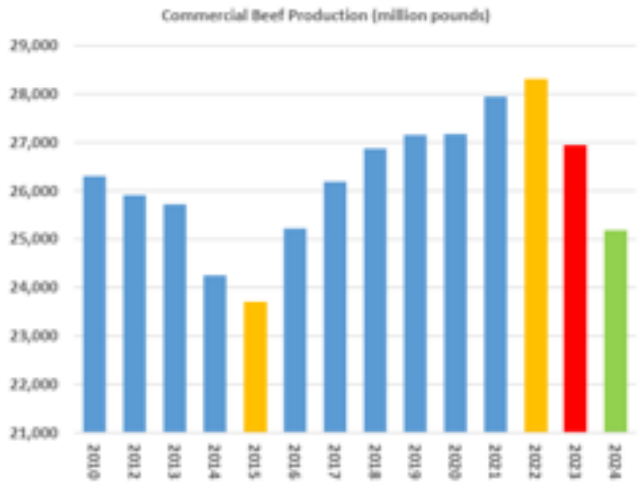
***Massimo Coda, Former President of the Beef Commission of the Paraguayan Beef Association***, highlighted key developments for the Paraguayan beef situation. It has a total cattle herd of over thirteen million head, but numbers have been declining gradually since 2020. The beef industry is very polarised with 2% of cattle producers accounting for 56% of the total cattle herd, whereas 78% of producers own only 10% of total cattle numbers.

Nevertheless, Paraguay is a top ten world beef exporter accounting for 4% of total

## Figure 1 USDA Beef Production Estimates

USDA Beef Production (millions pounds)

| Year | Q1 | Q2 | Q3 | Q4 | Annual |
|---|---|---|---|---|---|
| 2019 | 6,414 | 6,817 | 6,923 | 7,001 | 27,155 |
| 2020 | 6,931 | 6,059 | 7,115 | 7,069 | 27,174 |
| 2021 | 6,900 | 6,963 | 6,979 | 7,106 | |
| 2022 | 7,022 | 7,069 | 7,147 | 7,053 | 28,290 |
| 2023 | 6,821 | 6,710 | 6,645 | 6,765 | 26,941 |
| 2024 | 6,335 | 6,315 | | | 25,165 |
| 23/22 % | -2.9% | -5.1% | -7.0% | -4.1% | -4.8% |
| 24/23 % | -7.1% | -5.9% | | | -6.6% |



## Figure 2 Solution: Higher Value per ton




Source: INAC

world beef exports, with 71% of its production going for the export market. Approximately two million head of cattle are slaughtered for export with average carcase weights steadily rising.

### Over 58% of Paraguayan Beef Exports Going to Chile and Russia

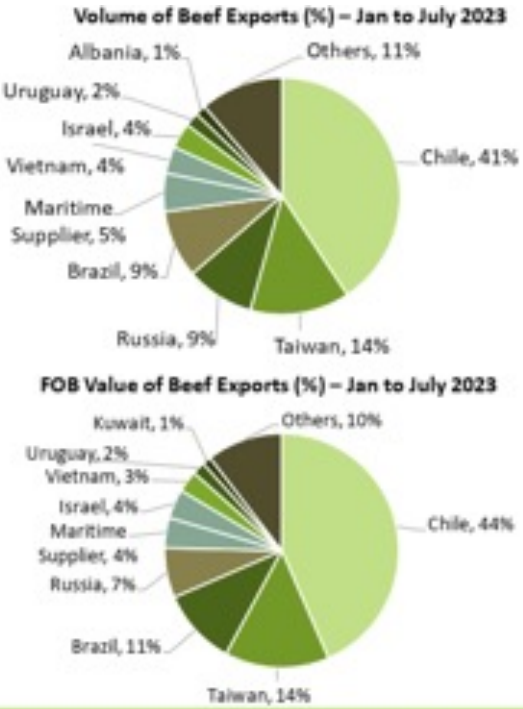
Total beef exports in 2022 were valued at over $1.7 billion; of the 334,000 tonnes exported in 2022, over 58% were sent to the two largest markets, Chile and Russia. The highest value market was Israel, with average quantities valued at $6.45 per kg. The lowest value market was Russia, at only $4.03 per kg. Taiwan was the 4th largest export market, with over 37,000 tonnes sold at a value of $5.23 per kg. Beef exports in the first 7 months of 2023 amounted to 182,000 tonnes – 9% less than in January – July 2022, with reduced volumes being sent to Brazil and Russia. Interestingly, Paraguay is currently exporting small amounts to Uruguay.

The higher cattle prices since 2020 have caused a squeeze on meat packer margins with the share of purchased beef carcases exceeding 70% of their total costs since 2021. Although export prices rose significantly in 2021 and 2022,

## Figure 3 Beef Exports 2023

BEEF EXPORTS 2023

| Total Beef Exports - January to July 2023 | | | |
|---|---|---|---|
| Country/Region | Quantity (kg cwe) | FOB Value (US$) | US$/kg |
| Chile | 74,164,592 | 382,883,565 | 5.16 |
| Taiwan | 24,816,521 | 127,090,163 | 5.12 |
| Russia | 17,003,962 | 60,695,270 | 3.57 |
| Brazil | 16,881,999 | 93,365,102 | 5.53 |
| Maritime Suppliers | 9,477,967 | 36,548,319 | 3.86 |
| Vietnam | 6,721,737 | 26,211,536 | 3.90 |
| Israel | 6,347,471 | 35,753,135 | 5.63 |
| Uruguay | 3,466,126 | 15,475,960 | 4.46 |
| Albania | 2,653,882 | 8,167,942 | 3.08 |
| Others | 20,686,349 | 94,686,200 | 4.58 |
| Total | 182,220,605 | 880,877,191 | 4.83 |
| Jan to July 2022 | 200,473,798 | 1,057,503,106 | 5.28 |
| | -9.1% | -16.7% | -8.4% |




Source: SENACSA

they declined in 2023 – and there has been a particularly marked drop in producer cattle prices in recent weeks. The high degree of volatility in cattle prices inhibits the expansion of the cattle herd. However, producer response has sometimes also been affected by a lack of enterprise amongst some livestock farmers, who are unwilling to invest in new technology and are satisfied with relatively low levels of traceability.

### Concerns about Greater Concentration in Paraguayan Beef Packing Sector

Other factors influencing beef production in Paraguay have been:

- Limited market access. Unlike other major South American beef exporters, Paraguay is not able to send beef to the growing market in mainland China, for political reasons; it also does not have access to the North American or Japanese markets.
- Increasing land degradation due to a lack of incentive to invest in improvements.
- High commodity prices for grain which have discouraged growth in feedlot production.
- Greater profitability of alternative enterprises – particularly soya bean production.
- Concentration in the beef packing industry. The two main meat companies, which are Brazilian-owned, account for 60 - 65% of all cattle slaughterings in Paraguay.

***Agustina Scarano from IPCVA (the Argentine Beef Promotion Institute)*** gave a presentation on the latest beef market situation in Argentina. The market is heavily influenced currently by four factors:

- Two consecutive years of dry weather
- The forthcoming Presidential Election - in October and possibly extending to December.
- The high inflation rate in excess of 115%
- The recent devaluation of the Argentine Peso (a decline of 20% against the US$ in August)

### Drought Causing the Major Increase in Argentinian Beef Production in 2023

Beef production is forecast to rise by 11% in 2023 to 3.4 million tonnes. This would result in 7% growth in beef exports for the year as a whole. However, the value of Argentine exports is declining due to the drop in the export price. The dominant export market is China, which accounts for over 75% of total exports in volume terms – although only 60% in value.

Government policy continues to play a critical role for the Argentine beef industry. The current policy, which will continue to the end of 2023, requires a general prohibition on a range of beef cuts, including plate, flank, blade and topside, being exported. However, there are some exemptions to these restrictions. It is possible to export these items under Tariff-rate Quota (TRQ) schemes and if they come from lean cows and bulls for manufacturing. Exports under the Hilton Quota and the High-Quality Beef Quota to the EU, the TRQ to the US, the 30,000 tonnes to Israel and a small quota to Colombia are also not restricted and do not count against the general quota.

Finally, exports of beef from low quality cow beef are permitted – particularly to China - as there is little domestic demand for these categories. In relation to marketing within Argentina, there is an 'Argentine Price Control Programme' operating on the domestic market ensuring carefully controlled prices for consumers.

In relation to recent market developments, cattle and beef prices had remained relatively low up to July due the increased supplies owing to the drought; however, there was a substantial rise of 40% in prices in August linked to the currency devaluation, higher corn prices and the build-up to the Presidential Election. This tighter supply situation is likely to continue and in 2024, production is forecast to revert to the levels of 2022, amounting to three million tonnes, over 10% less than the current estimate for 2023.

Beef consumption per head is expected to remain at around 48 - 49 kg with the Argentine public remaining very sensitive to changes in retail beef prices as they constitute such an important component of their retail purchases. At the same time domestic demand is not growing significantly due to the limited purchasing power of consumers.

In relation to export developments, there is strong growth in exports to Israel and a switch away from frozen to chilled beef exports to the US market. In relation to export prospects in 2024, much will depend on the result of the Presidential elections; of particular importance will be the winning candidate's policy towards the peso exchange rate and whether or not beef export restrictions are removed.

*You are very welcome to join the IMS Economics Committee and attend future webinars. If you wish to do so, please contact the Chair, Erin Borror:* eborror@usmef.org

**Bob Bansback**
**IMS Advisory Council**

# Has the Plant-Based Bubble Burst?

*The 2020's*

Already the 2020's have seen massive rapid changes in consumer behaviour. Three main drivers have brought this about:

- Covid-19 and its wide ranging effects
- increased awareness of climate change and sustainability
- the economic effects of the war in Ukraine.

One consequence of these events has been consumers examining their own lifestyles to see if there are ways in which they can achieve the Holy Grail of improving their own health and helping the planet whilst reducing household expenditure.

In the IMS Newsletter 607 (October 2019) I posed the question on non-meat protein, "There's a gap in the market, but is there a market for the gap?" My simple answer was "Yes, there is a market for the gap, but the bigger question is…how big will it be?"

## 2023

The media in recent years have been single-minded in featuring articles supporting the plethora of plant-based, non-meat protein launches, how they are going to replace meat and are going to save the planet. Every new product, the growth of ranges in store and the multi million investments by celebrities and venture capitalists all gained positive and regular media attention.

Suddenly in the UK in 2023 this began to change. Articles began to appear noting the reduction in ranges by the major brands and commenting (even criticising) the perceived healthiness of these products with their long lists of ingredients, many of which were far from healthy.

In June there was an article in the Comment section of the *Sunday Times* headlined, "The Great Vegan Rollout has been Halted in its Salty, Sugary, Ultra-processed Tracks". Its conclusions included a comment which has long been apparent to many, "…there are 100 people on the non-vegan side of the fence being badgered by just one or two on the other side…".

## Product Life Cycle

The marketing community will be well versed in The Product Life Cycle. Simplistically it has four stages:

- introduction: the product development and launch
- growth: retailer listings, comms support, consumer trial
- maturity: repeat purchase, range extensions
- decline: dependent on the success, the reaction of consumers and competitors

Whilst there is no simple timeline on this all new products follow this path over their lifetime of months or decades (in the case of meat… centuries).

As a rule a unique, well developed product matched to clearly identified consumer needs has a greater chance of success than a "me too" product. And here is one of the problems for non-meat proteins.

Too many of the new products are poorly developed, far from unique and not matched to a strong consumer need of significant size and appeal.

Anecdotally it has been calculated that there have been 49 different non meat burger launches in recent years……which is probably 45 too many! Yes, there is product innovation in characteristics such as copying the "bleeding" of burgers using beetroot juice, but is this enough? The consumer is well versed with what a burger is. It is a highly successful and well liked product, making it a difficult target to match, let alone improve on.

There must be many venture capitalists who now regret the multi millions they have invested in these products, including household names such as Leonardo di Caprio and Elon Musk.

## Major Players

- Nestle Garden Gourmet

Garden Gourmet is currently selling in c25 countries worldwide but has recently been withdrawn from the UK retail market.

- Beyond Meat

This vegan food firm has recently seen sales drop by almost a third as the rising cost of living squeezes shoppers bringing about "softer demand". They have also recognised the increased scrutiny of the health benefits

of vegan products.

- Good Food Institute

According to GFI plant-based meat sales declines are being driven by slightly fewer consumers purchasing the category amidst an inflationary climate.

- Strong Roots

Their latest global survey of 1000 consumers showed:

  - 61% increasing their plant-based intake but 40% cutting out or reducing fake meat in their diets
  - 47% said taste was behind the decision, followed by artificial additives, 36%, and a further 36% saying it was the processed nature of the products

- Meatless Farm

Went under in June

- Heck

Shelved production on the majority of its vegan lines whilst claiming that consumers still want something that reminds them of meat!!

- Vegan Society

They have suggested that added ingredients such as palm oil, coconut oil and salt will reduce the nutritional quality of fake meat, increasing fat and salt content. A real challenge for the sector that sells on being "healthier".

- Squeaky Bean

The company acknowledges that a market slowdown is "unquestionable" which is put down, largely, to overcrowding within the category.

## So, where are we?

Vegetarianism and veganism are not new and claimed levels have been steadily growing for many years. The link between human health and animal welfare concerns was elevated by consumers who then linked this to global warming and sustainability. The growth of flexitarians and meat reducers increased the number of consumers seeking and trialling meat alternatives, even if it has been on an irregular basis.

Consumers regular in home meals are fairly predictable, largely due to time, lack of imagination and cookery knowledge. Therefore, they are looking to replace meat with alternatives that behave in much the same way. Not surprisingly, a substitute is rarely as good as the real thing!! Also they are frequently more expensive and once the novelty has worn off fatigue soon sets in.

## So, problem over? No!!

Already a few of these products have built sizeable followings even if it concerns the category rather than an individual brand. A core, and growing, group of consumers, particularly the younger ones, continue to see meat as a problem from many perspectives. This means that there are still major opportunities for the reduced number of brands.

However, the efforts of the international meat industry to gather and promote a science-based response to its critics have been important. It must never be forgotten that in addition to taste, texture, nutrition and enjoyment, meat has a fantastic range of benefits to promote - we will never be "a substitute"!!

## Looking over the horizon!!

Perhaps the biggest challenge is yet to come? Cultivated meat may be in its infancy but it is already available in Singapore and its approval is being applied for in the USA, UK and Europe. Red meat grown from animal cells with no need to grow or kill animals could be a game changer?

Is it a real alternative to meat for environmentally conscious consumers? Similar environmental claims have also been made for the plant-based options. Whether they are again copies of existing meat options, or ranges of products that genuinely excite tomorrow's consumers remains to be seen (see IMS Newsletter 638, May 2022, for a discussion of cultured meat, is it viable?).

The prospect of a challenging "three-tier market" will soon exist:

- meat
- plant-based alternatives
- cultivated meat

## A Final Word

In June the BBC aired a programme "Gregg Wallace: The British Miracle Meat". This was a "mockumentary", in the style of his series "Inside the Factory", this time looking at the process of producing genetically engineered human meat!! It claimed to pay contributors £250 for a human buttock to be grown on and sold to the public. It even featured Michel Roux and his Michelin starred restaurant, Le Gavroche, saying how good it was.

A more relevant airing would have been April 1st but would this, tongue in cheek, programme have been shown even a couple of years ago?

**Chris Lamb**
**Past Chair, IMS Marketing Committee**