

Broiler Economics

By Dr. Paul Aho

THE IMPORTANCE OF SOUTH AMERICA

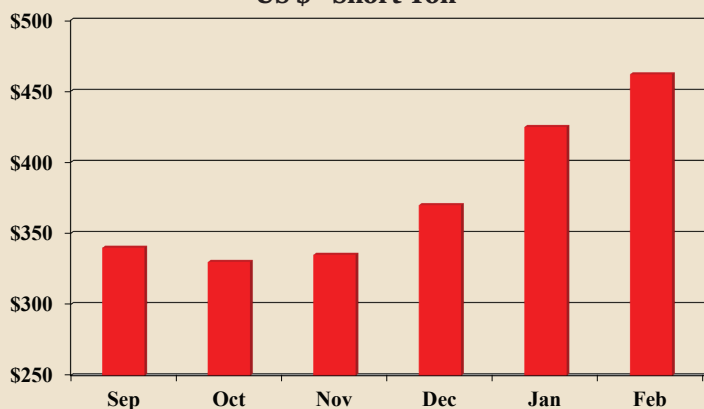
At the beginning of this century, South America (primarily Argentina and Brazil) produced approximately the same amount of soybeans as did the US. Soon, production in South America will be double that of the US. This enormous shift, in just a couple of decades, has good and bad consequences for grain buyers.

The good news about rapidly rising South American production of soybeans is that there is an increased world supply of soybeans and a big harvest six months after a US harvest. Production hiccups in either North or South America are likely to be smoothed over within six months.

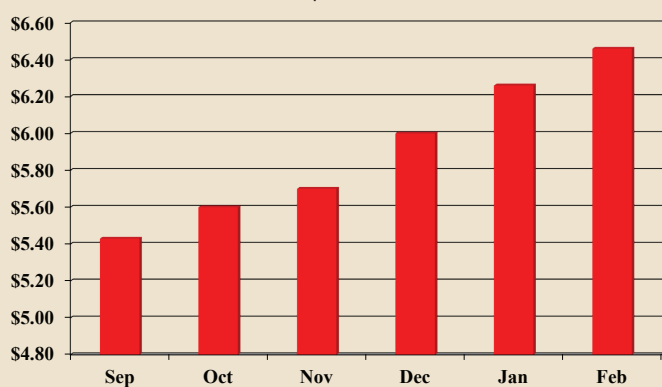
The bad news about the dominance of South America is that production problems in that part of the world are increasingly important as we are now discovering. Earlier estimates for Argentine soybean production this year were 50 million metric tons (MMT). This week, in the WASDE report, the production estimate was trimmed to 45 MMT. Private estimates are as low as 40 MMT. For Brazil, the early estimate was 144 MMT and now is 134 MMT with private estimates as low as 125 MMT. If the private estimates are correct, South American production will be 30 MMT less than previously expected.

The result of this production shortfall can be seen in futures prices. March 2022 soybean meal futures rose from \$330 per short ton back in October to \$462 today. Corn prices rose in sympathy. It would not be surprising to see meal prices above \$500 per ton should the worst fears about the harvest in South America prove to be true. However, it is important to remember that bull markets need to be continually fed with bullish news. If the bullish news fades away in March, prices of both soybean meal and corn are likely to collapse.

Soybean Meal March 2022
US \$ - Short Ton



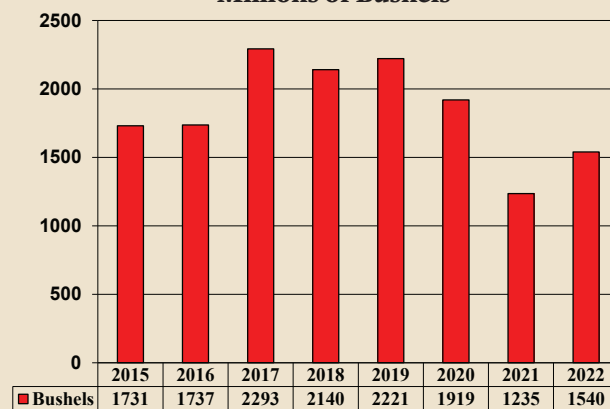
Corn Futures March 2022
US \$ - Bushel



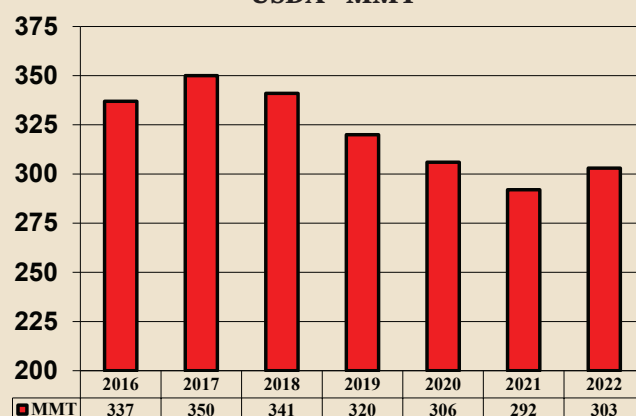
Corn

Corn prices have risen sharply for two years now, and it was widely expected that prices would soon begin to moderate. However, for the reasons mentioned above, prices have been rising instead of falling. The harvest in the US was excellent and projections by the USDA are for higher ending stock this year but that is not enough. World ending stock numbers are also expected to rise but are suspect because of South America and the potential for conflict in the Ukraine.

US Ending Stock of Corn
Millions of Bushels



World Ending Stock of Corn
USDA - MMT



Argentina Corn Supply and Demand
WASDE February 2022 Metric Tons

	2019-2020	2020-2021	2021-2022
Harvest	51	51	54
Imports	0	0	0
Exports	36	37	39
Ending Inventory	3	2	3

Brazil Corn Supply and Demand
WASDE February 2022 Metric Tons

	2019-2020	2020-2021	2021-2022
Harvest	102	86	114
Imports	2	4	2
Exports	35	20	43
Ending Inventory	5	5	5

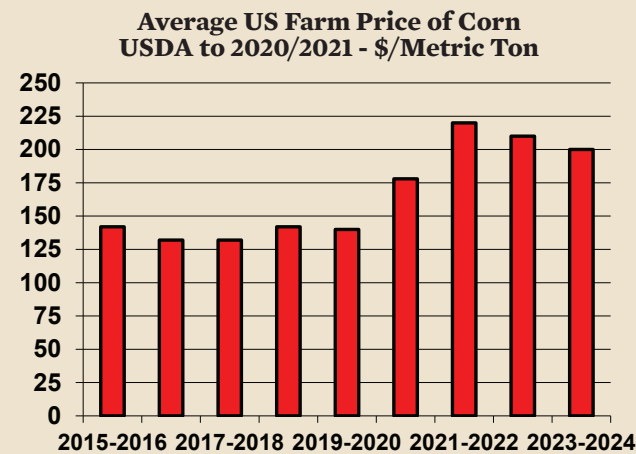
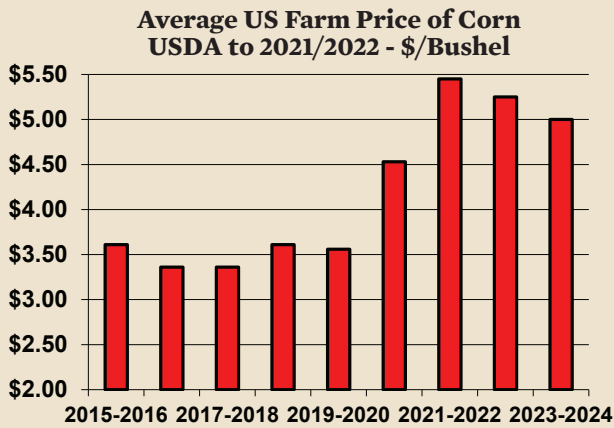
China Corn Supply and Demand
WASDE February 2022 Metric Tons

	2019-2020	2020-2021	2021-2022
Harvest	260	260	273
Imports	8	28	26
Exports	0	0	0
Ending Inventory	200	204	210

The current price of corn is one dollar per bushel higher than the average predicted by the USDA for the entire year. Barring bad news from the Ukraine or further deterioration of crops in South America, prices can be expected to fall back at least to that average predicted price of \$5.50 per bushel (\$220 per MT), in the next month.

**US Corn Supply and Demand
WASDE February 2022 - Millions of Bushels**

	2019-2020	2020-2021	2021-2022
Harvest	13,620	14,111	15,115
Supply Total	15,883	16,055	16,375
Ethanol	4,852	5,032	5,325
Exports	1,778	2,753	2,425
Feed	5,903	5,597	5,650
Total Use	13,963	14,819	14,835
Ending Inventory	1,919	1,236	1,540
Farm Price	\$3.56	\$4.53	\$5.45



Soybeans

Soybean prices are the most affected by the drought in South America. The deteriorating crop in Argentina and Brazil brought about rising and volatile prices. For this crop year, South America was once expected to produce 206 MMT. However, drought in some areas and floods in other areas could reduce that number by 30 MMT as mentioned earlier.

**Argentina Soybean Supply and Demand
WASDE February 2022 Metric Tons**

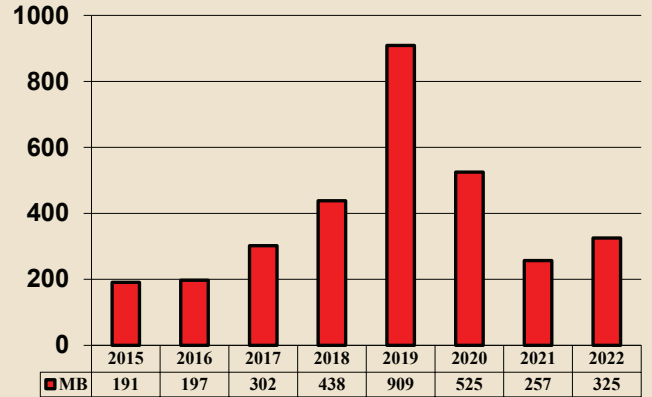
	2019-2020	2020-2021	2021-2022
Harvest	49	46	45
Imports	5	5	3
Exports Beans + Meal	37	33	32
Ending Inventory	27	26	22

**Brazil Soybean Supply and Demand
WASDE February 2022 Metric Tons**

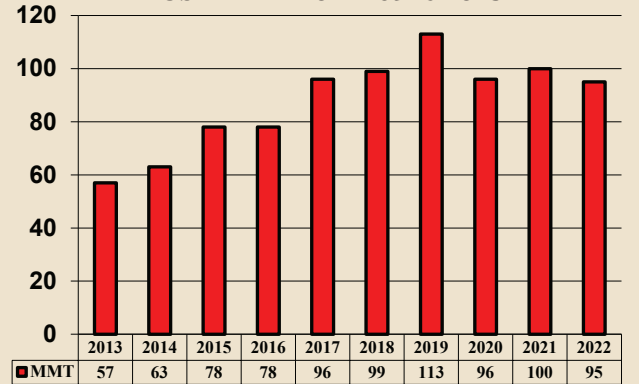
	2019-2020	2020-2021	2021-2022
Harvest	128	137	134
Imports	1	1	1
Exports Beans + Meal	109	97	107
Ending Inventory	20	27	22

Estimates of world ending stocks have been lowered recently and could fall further. US stocks were extremely low in 2021 and are expected to rise somewhat this crop year. Like corn, the average price of soybean meal this crop year will be higher than last year. In the short run, if the worst fears about South America and the Ukraine prove not to be exaggerated, a rapid decline to \$400 per short ton (\$440 per MT) would be likely in the next month.

**US Ending Stock of Soybeans
USDA - Millions of Bushels**



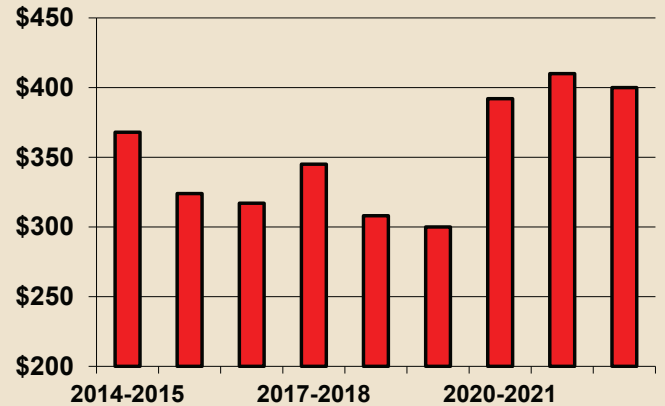
**World Ending Stock of Soybeans
USDA - Million Metric Tons**



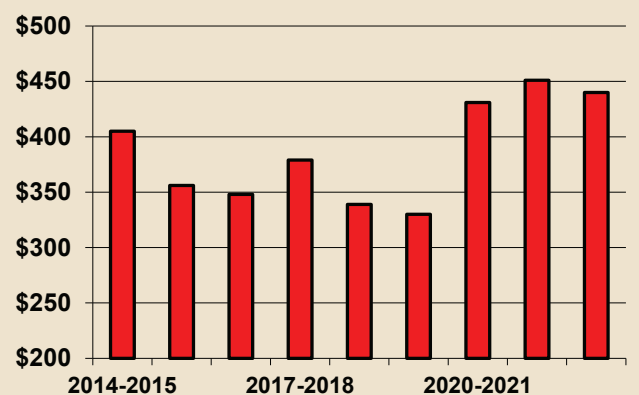
**US Soybeans - WASDE February 2022
USDA - Millions of Bushels**

	2019-2020	2020-2021	2021-2022
Harvest	3,552	4,216	4,435
Total Supply	4,476	4,761	4,707
Export	1,679	2,265	2,050
Total Use	3,952	4,505	4,382
Ending Stock Inventory	525	257	325
Meal Price short ton	\$299	\$392	\$410

**Average US Crop Year Price of Soybean Meal
USDA to 2020-2021 - Short Ton**



**Average US Crop Year Price of Soybean Meal
USDA to 2020-2021 - Metric Ton**

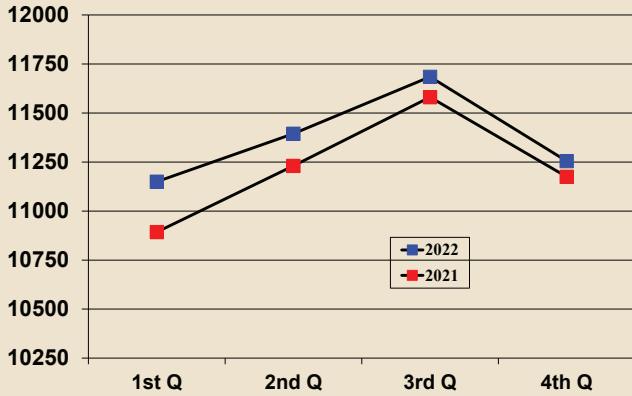


US Chicken Industry

The US chicken industry did not expand production recently because of COVID-19 and the accompanying problems with labor and raw materials. As a result, when the economy, and meat demand recovered faster than imagined, the supply of chicken turned out to be surprisingly short. Chicken prices can be expected to continue to be relatively high in 2022.

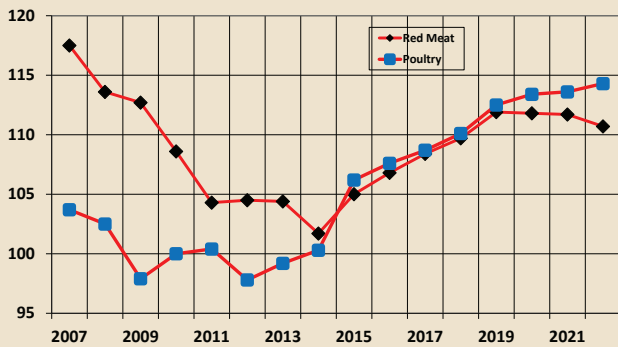
Production in 2021 rose only 0.3%. The USDA (December WASDE) expects chicken production to accelerate to only 1% this year, a relatively small increase.

**US Quarterly Broiler Production
USDA - Million Pounds**



The total per capita domestic meat supply of red meat and poultry will be nearly the same in 2022 as it was in 2020, 225 pounds. This year, red meat per capita consumption is expected to fall while poultry consumption rises. Total meat supply per capita is expected to fall slightly which, if it proves to be true, would indicate continued relatively high prices for all meat including poultry.

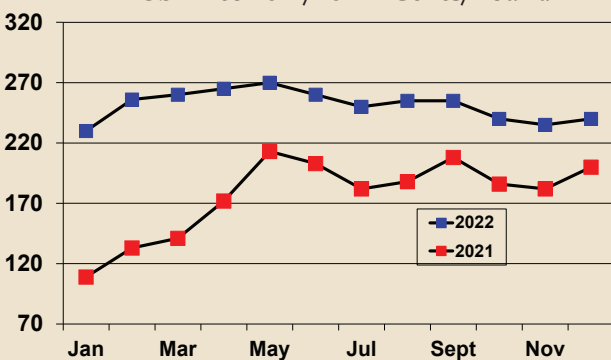
**US Per Capita Consumption of Red Meat and Poultry
USDA to 2022 - Pounds**



Deboned Breast

The price of deboned breast sank to less than a dollar late in 2020. Last year, breast meat rose during the first five months of the year as supply turned out to be surprisingly short for a suddenly increased demand, a familiar story for many industries. This year the price did not drop seasonally, as it normally does, remaining above \$2.20 per pound (\$4.82 per kilo). That would indicate a continued shortage of supply compared to demand and continued relatively high prices during the entire year.

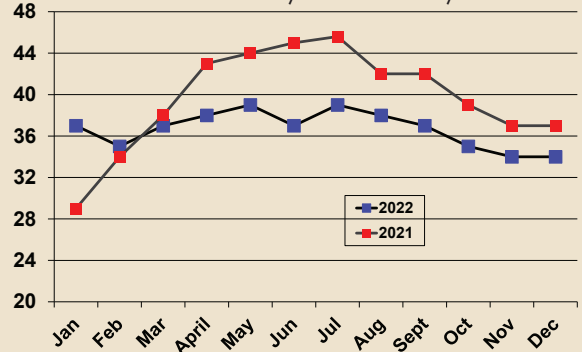
**Deboned Breast - Northeast Price
USDA to 2021/2022 - Cents/Pound**



Leg Quarters

Total US exports of leg quarters remained steady in 2021 while the value was 25% higher. The prices of all meat, domestic and foreign, rose last year helping to lift the value of leg quarters. However, leg quarters have risen sufficiently to call into question the continued willingness of international buyers to pay the price. As a result, the average price of leg quarters in 2022 may be lower than in 2021. The Northeast price is likely to average 36 cents per pound (80 cents per kilo) this year.

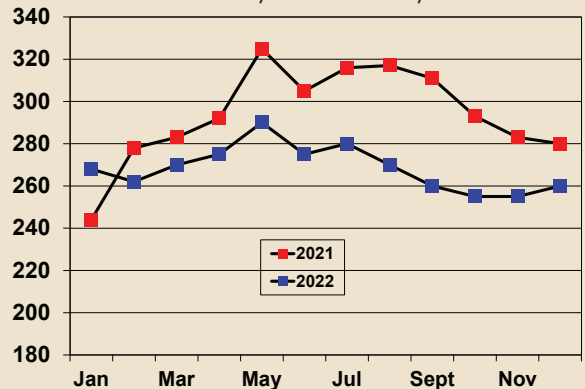
**Leg Quarter - Northeast Price
USDA to 2021/2022 - Cents/Pound**



Wings

A situation similar to leg quarters may be developing in wings. After a year of extremely high prices, wing prices may not have any more room to rise and may moderate this year. Even if prices moderate somewhat, they will remain historically high. The lack of supply will keep prices of the highly desired wings at a relatively high level just below \$3 per pound (\$6.60 per kilo) wholesale (Northeast Price) throughout 2022.

**Whole Wing - Northeast Price
USDA to 2021/2022 - Cents/Pound**



Chicken production in the US is profitable despite labor shortages and rising input costs. Prices of leg quarters and wings may drop this year but 2022 should be a very profitable year especially if grain prices drop and labor shortages begin to ease.

February 2022 US (Imperial) Measure

Leg Quarters	\$0.34 per pound
Deboned Breast	\$2.58 per pound
Wings	\$2.63
Chicago Corn	\$6.41 per bushel
Soybean Meal	\$453/Ton
Total Wholesale Cost	\$0.96
Revenue	\$1.09
Gain (Loss) per pound	\$0.13

February 2022 Metric Measure

Leg Quarters	\$0.75 per kilo
Deboned Breast	\$5.68 per kilo
Wings	\$5.79 per kilo
Chicago Corn	\$252 per ton
Soybean Meal	\$499 per ton
Total Wholesale Cost	\$2.12
Revenue	\$2.40
Gain (Loss) per kilo	\$0.28

Projected June 2022 US (Imperial) Measure

Leg Quarters	\$0.37 per pound
Deboned Breast	\$2.50 per pound
Wings	\$2.70
Chicago Corn	\$5.50 per bushel
Soybean Meal	\$400/Ton
Total Wholesale Cost	\$0.91
Revenue	\$1.09
Gain (Loss) per pound	\$0.18

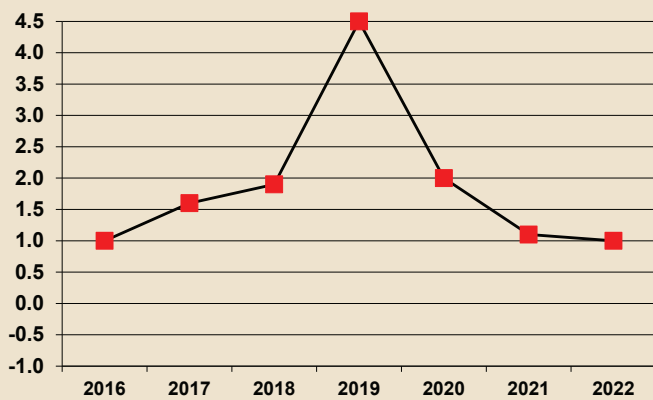
Projected June 2022 Metric Measure

Leg Quarters	\$0.81 per kilo
Deboned Breast	\$5.50 per kilo
Wings	\$5.94 per kilo
Chicago Corn	\$216 per ton
Soybean Meal	\$440 per ton
Total Wholesale Cost	\$2.01
Revenue	\$2.40
Gain (Loss) per kilo	\$0.39

World Chicken Growth Rate

World chicken production grew at an unusual rate of 4.5% in 2019 due in part to surging production in China to make up for lack of pork in the wake of African Swine Flu. Since then, production increases moderated in China while the problems associated with COVID reduced production increases everywhere. As a result, there was only a 1.1% increase in world production last year. Growth is projected to be only 1% in 2022, a level below the long-term expected growth rate of 2%.

World Chicken Growth Rate - USDA %



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Dr. Paul Aho is an international agribusiness economist specializing in projects related to the poultry industry and has been a prolific writer in trade journals in both the United States and in Latin America. Dr. Aho now operates his own consulting company called "Poultry Perspective". In this role, he works around the world with poultry managers and government policy makers.

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