

# Broiler Economics

By Dr. Paul Aho

## WEATHER MARKET

Although corn prices are down from their highs this year of \$8 per bushel (\$320 per ton), they are still hanging out at relatively high levels of around \$6 per bushel (\$240 per ton) in Chicago. The causes are familiar, principally the war in Ukraine and weather problems in both Europe and some parts of North America. Recently some ships have been allowed to leave the Ukraine which helps to alleviate grain shortages, but the weather has gotten worse, particularly in Europe.

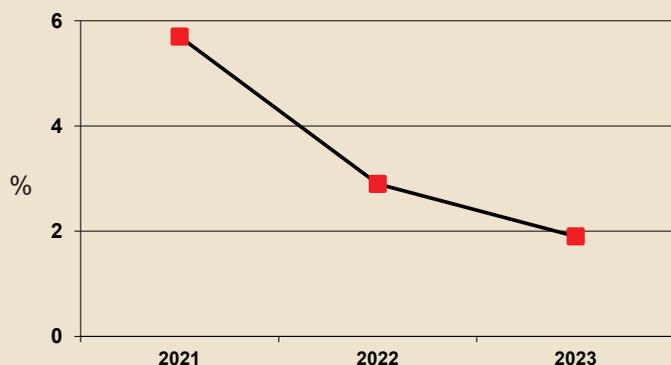
The August grains markets are typically a “weather” market with traders highly sensitive to rainfall, particularly in the US Corn Belt. This year, rainfall has been good in some areas and bad in others. The next few weeks are critical, but the combination of good and bad areas may add up to a “normal” year, neither a disaster nor a bumper crop. The news of crop stress out of Europe is more concerning.

For poultry producers the welcome drop in the price of corn has been offset by an increase in the price of soybean meal. Weather is even more critical for soybeans than it is for corn in late August.

Whether it be crude oil or corn, bull markets do not last forever because high prices both stimulate additional production and discourage use. That potent combination eventually brings a bull market to its knees. However, ‘eventually’ can take a while to arrive.

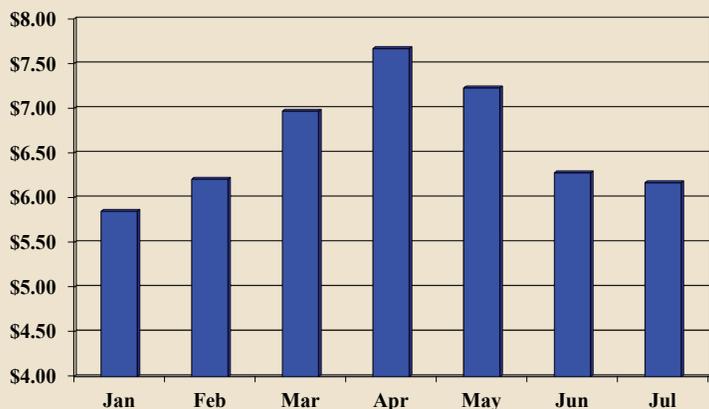
An eventual bear market in grain could come about in part due to falling demand. The world economy is slowing down. In 2021, world growth was a robust 5.7%. Growth could slow to just 2% next year. The US and the EU are both in the process of raising interest rates to tame inflation. If they are successful, inflation will indeed be tamed but the world economy is likely to slow worldwide.

**World Economic Growth  
World Bank to 2022**

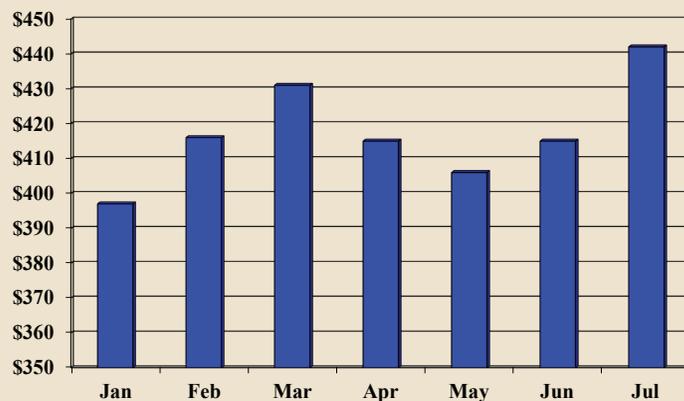


The effect of war in the Ukraine can be seen most clearly in the futures price of corn. Chicago corn futures rose from January to April and then moderated from April to July. Soybean meal futures have bounced up and down and are now at their highest levels of the year. If weather fears turn out to be unfounded, prices for soybean meal should follow corn downward in the coming months.

**Corn Futures - US\$ bushel  
September 2022 - End of Month**



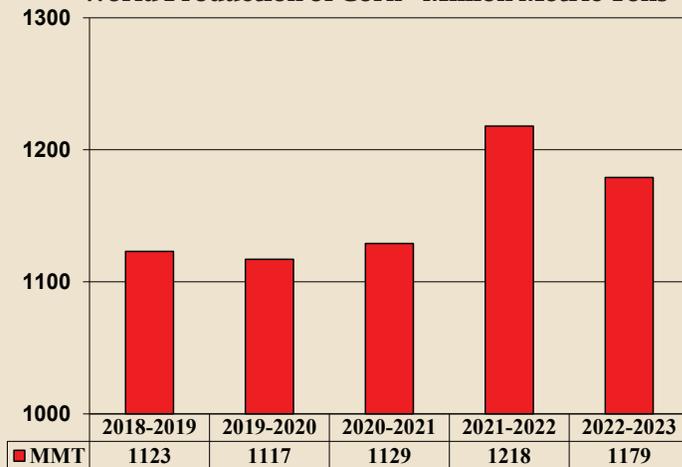
**Soybean Meal Futures - US\$ Short Ton  
September 2022 - End of Month**



## Corn

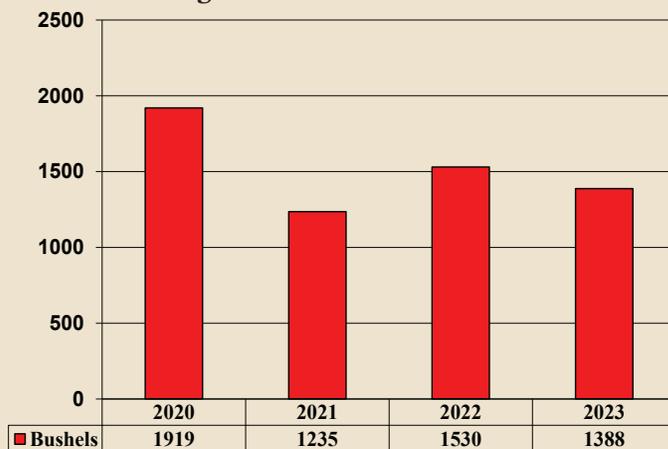
Both corn prices and production have been rising for two years. Before the war it was widely expected that prices would soon begin to moderate. Thanks to the war, corn prices rose even further. Adding support for corn prices is the fact that world production of corn is expected to fall next crop year due to production losses in Europe.

**World Production of Corn - Million Metric Tons**

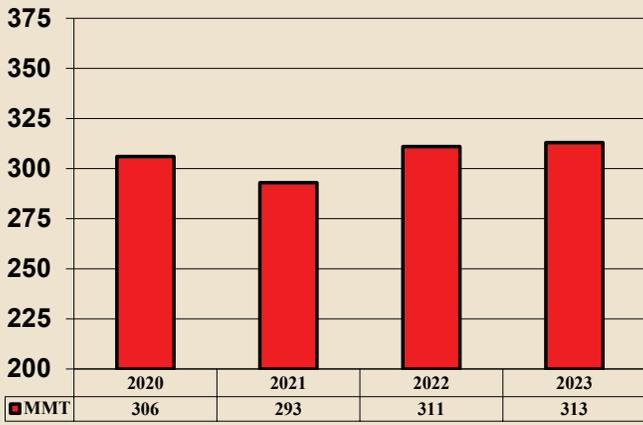


Next crop year is expected to show an increase in production in Argentina and Brazil and a decrease in Ukraine and Europe in general. Imports by China, which surged last crop year, are expected to be lower this crop year and next. US production is expected to be slightly lower. Overall world production will be slightly lower. Projections of ending world corn inventory numbers for next year are steady, while US inventories are down.

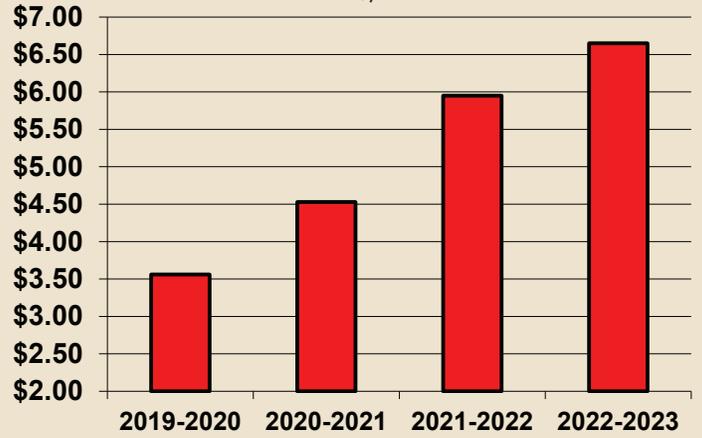
**US Ending Stock of Corn - Millions of Bushels**



**World Ending Stock of Corn - Metric Tons - USDA**



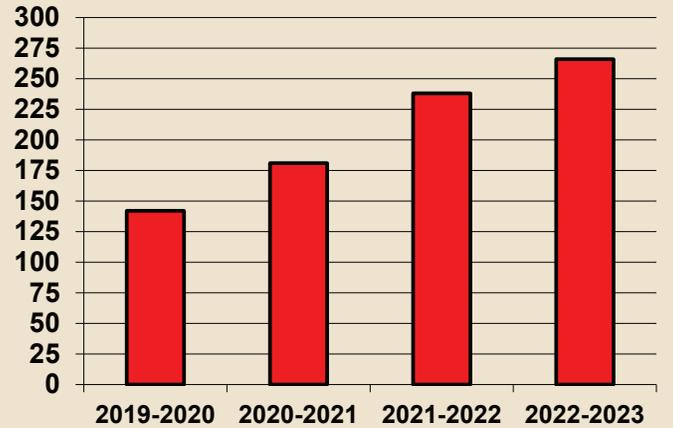
**Average US Farm Price of Corn  
USDA - \$/Bushel**



**Argentina Corn Supply and Demand  
WASDE August 2022 Metric Tons**

	2020-2021	2021-2022	2022-2023
Harvest	52	53	55
Imports	0	0	0
Exports	41	39	41
Ending Inventory	1	1	1

**Average US Farm Price of Corn  
USDA - \$/Metric Ton**



**Brazil Corn Supply and Demand  
WASDE August 2022 Metric Tons**

	2020-2021	2021-2022	2022-2023
Harvest	87	116	126
Imports	4	2	1
Exports	21	45	47
Ending Inventory	5	5	8

Although the average price next crop year in the US is projected to be higher than this crop year, the next crop year may be the opposite of this crop year; prices may start high and end lower instead of starting lower and ending higher. The stage will be set for possibly lower average prices in 2023-2024.

**Ukraine Corn Supply and Demand  
WASDE August 2022 Metric Tons**

	2020-2021	2021-2022	2022-2023
Harvest	30	42	30
Imports	0	0	0
Exports	24	25	12
Ending Inventory	1	6	12

**Soybeans**

Soybean prices were less affected by the war and more affected by a moderate drought that recently took place in Argentina and Brazil in addition to weather worries at this moment in the US. For this crop year, South America was once expected to produce 206 MMT. However, drought in some areas and floods in other areas reduced that number by 30 MMT. The rapid increase in the production of “renewable” diesel fuel made from soybean oil could begin to have an effect next crop year. However, the enormous capacity for Brazil to increase soybean production is likely to eventually moderate the price of soybeans and soybean meal.

**China Corn Supply and Demand  
WASDE August 2022 Metric Tons**

	2020-2021	2021-2022	2022-2023
Harvest	260	273	271
Imports	30	23	18
Exports	0	0	0
Ending Inventory	206	210	204

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

	2020-2021	2021-2022	2022-2023
Harvest	46	43	51
Imports	5	3	5
Exports Beans + Meal	33	31	33
Ending Inventory	26	21	25

**US Corn Supply and Demand  
WASDE August 2022 Millions of Bushels**

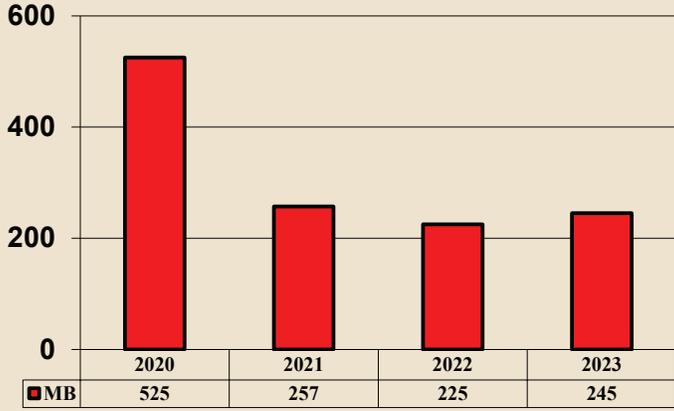
	2019-2020	2020-2021	2021-2022	2022-2023
Harvest	13,620	14,111	15,115	14,459
Supply Total	15,883	16,055	16,375	15,913
Ethanol	4,852	5,033	5,350	5,375
Exports	1,778	2,753	2,450	2,375
Feed	5,903	5,598	5,600	5,325
Total Use	13,963	14,821	14,845	14,525
Ending Inventory	1,919	1,235	1,530	1,388
Farm Price	\$3.56	\$4.53	\$5.95	\$6.65

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

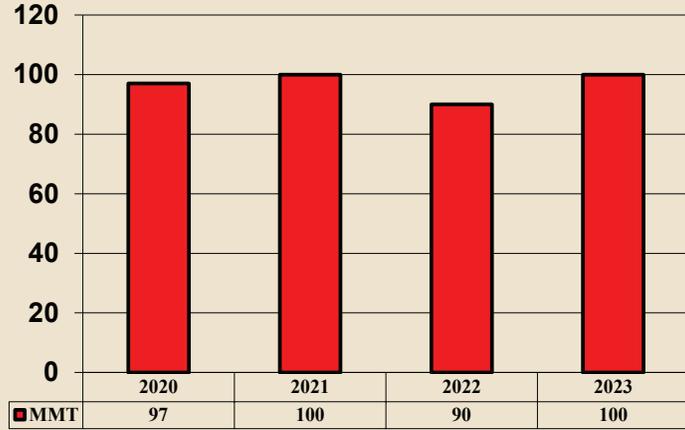
	2020-2021	2021-2022	2022-2023
Harvest	137	125	149
Imports	1	1	* 1
Exports Beans + Meal	97	100	107
Ending Inventory	27	21	30

World and US ending stocks of soybeans fell this year but are expected to rise next year. Like corn, the average price of soybean meal this crop year was higher than last year. However, unlike corn, the average price next year is expected to drop.

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



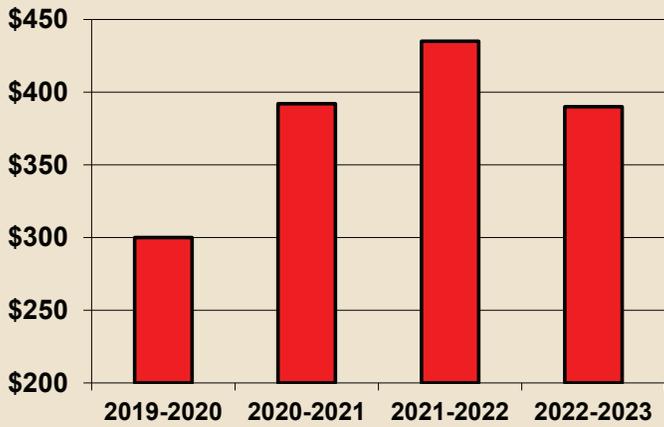
**World Ending Stock of Soybeans  
USDA - Million Metric Tons**



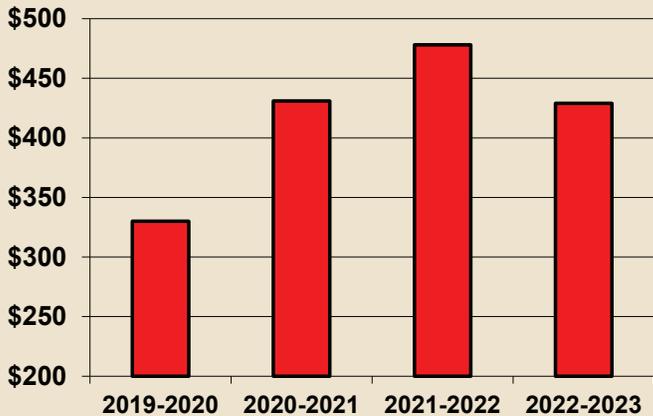
**US Soybeans – USDA - WASDE August 2022  
Millions of Bushels**

	2020-2021	2021-2022	2022-2023
Harvest	4,216	4,435	4,531
Total Supply	4,761	4,707	4,771
Export	2,265	2,205	2,155
Total Use	4,505	4,482	4,526
Ending Stock Inventory	257	225	245
Meal Price short ton	\$392	\$435	\$390

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



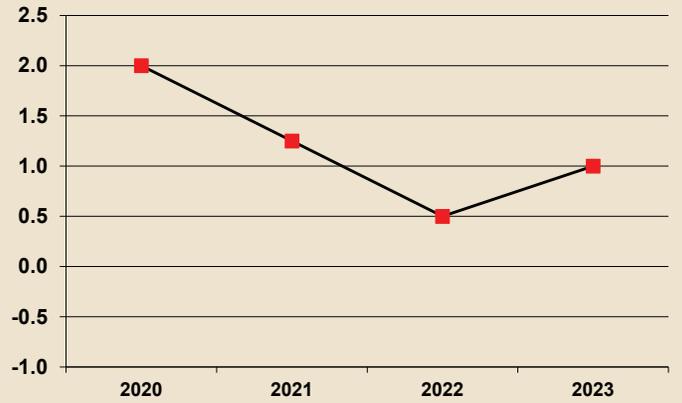
**Average US Crop Year Price of Soybean Meal  
USDA - Metric Ton**



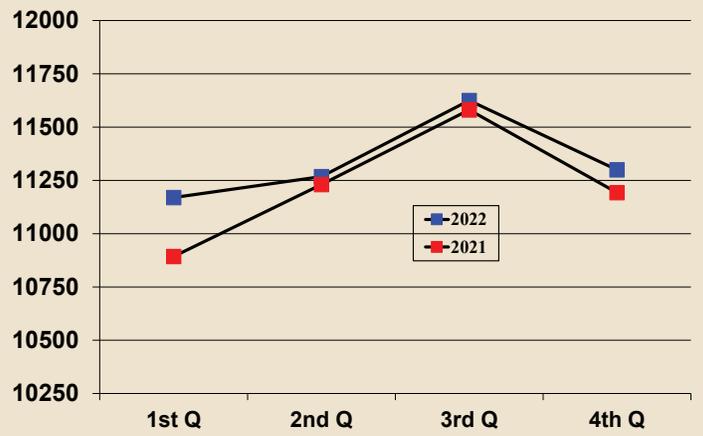
**Chicken Industry**

The world and US chicken industry expanded very slowly this year due primarily to high grain prices and supply chain problems. World chicken production will increase only 0.5% this year according to the USDA. US production will increase just 1% and most of that increase was in the first quarter. By 2023 production should begin to accelerate worldwide. A normal world production increase would be expected to be about 2% per year.

**Increase in World Broiler Chicken Production in %**

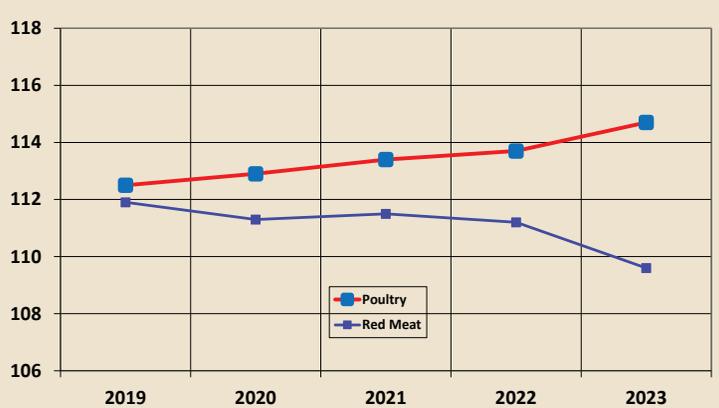


**US Quarterly Broiler Production  
USDA - Million Pounds**



Since 2019 there has been a divergence in the per capita consumption of red meat and poultry. While poultry increased, red meat declined. This divergence is expected to accelerate next year with red meat per capita consumption expected to fall significantly while poultry consumption rises. Total red meat and poultry supply per capita has been remarkable stable for the last 5 years at 224 pounds or 101 kilos.

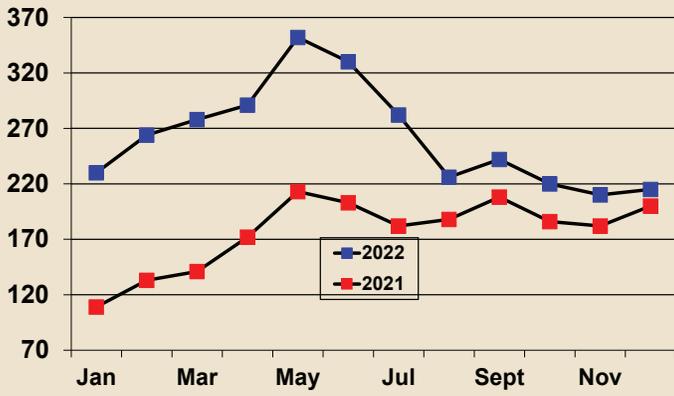
**US Per Capita Consumption of Red Meat and Poultry  
USDA to 2023 - lbs**



Deboned Breast

Deboned breast meat prices were sharply higher earlier this year compared to last but have fallen recently. Prices are now at \$2.26 per pound (\$4.97 per kilo) down from \$3.50 per pound (\$7.70 per kilo) just two months ago. Prices dropped as the economy weakened somewhat and more supply became available (more deboning). Prices can be expected to be similar to that of 2021 for the rest of this year.

**Deboned Breast - 2021-2022  
USDA Northeast Price - Cents/lb**



Chicken production in the US is less profitable than it was just a few months ago thanks to high feed cost and lower product prices. This winter could find the industry seasonally unprofitable, as is common, and returning to profitability with seasonal strength in prices next spring.

**August 2022 US Measure**

Leg Quarters	\$ 0.60 per pound
Deboned Breast	\$ 2.26 per pound
Wings	\$ 1.31 per pound
Chicago Corn	\$ 6.40 per bushel
Soybean Meal	\$ 442/Short Ton
Total Wholesale Cost per pound	\$ 1.06
Revenue per pound	\$ 1.09
Gain (Loss) per pound	\$ 0.03

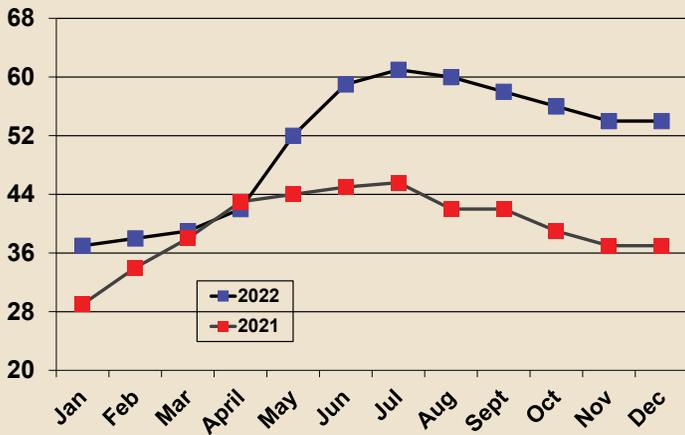
**August 2022 Metric Measure**

Leg Quarters	\$ 1.32 per kilo
Deboned Breast	\$ 4.97 per kilo
Wings	\$ 2.88 per kilo
Chicago Corn	\$ 252 per ton
Soybean Meal	\$ 487 per ton
Total Wholesale Cost per kilo	\$ 2.33
Revenue per kilo	\$ 2.40
Gain (Loss) per kilo	\$ 0.07

Leg Quarters

Leg quarter prices also increased substantially this year but have managed to hold onto the gains. From just 36 cents per pound in January (80 cents per kilo) the price rose to 60 cents recently (\$1.30 per kilo). Demand is strong from both the export and domestic markets. As the price of other meats moved out of reach for many consumers, the demand for deboned thigh meat and bone-in drums and thighs increased. So far, international customers are also eager to buy but the higher price calls into question their continued willingness to pay the price. The price may back off somewhat in the last five months of the year.

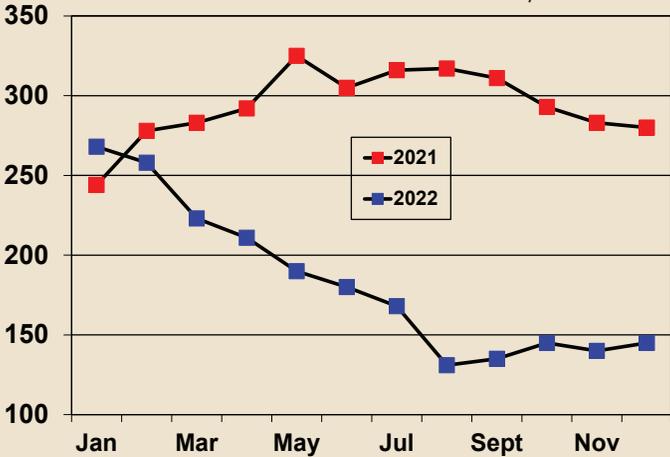
**Leg Quarter Price - 2021-2022  
USDA Northeast Price - Cents/lb**



Wings

The price of wings dropped steadily this year. The extremely high price of wings last year contributed to some demand destruction this year. The wholesale price is now less than 50% of what it was a year ago. At this point, the price of wings is likely to stabilize and perhaps even increase during the fall sports season.

**Whole Wing Prices - 2021-2022  
USDA Northeast Price - Cents/lb**



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