

Broiler Economics

By Dr. Paul Aho

AUGUST SURPRISE

After record breaking rain and floods in the US Midwest earlier this year, many observers (including this one) expected that the corn crop this year would be far below average. To the surprise of almost everyone, the USDA in August pegged both acres planted and yield far above trade estimates. As a result, corn fell limit down on August 12th. If the weather continues to cooperate and there is no early frost, the USDA predictions could well turn out to be correct. However, there is a greater than normal uncertainty about this crop, including just how many of the planted acres were later abandoned. The USDA is penciling in 8 million acres of corn abandoned or used for silage. That compares to 7.4 million such acres last year, a modest increase year to year given the extreme weather of this spring.

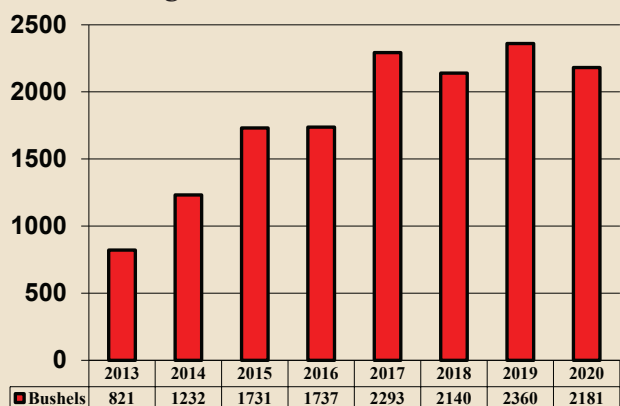
At one point, the USDA was expecting corn production to decline 1.4 billion bushels this year. Now the estimate is a decline of only 500 million bushels. At the same time, the estimate of corn use is declining for exports and feed. With higher than expected supplies and lower than expected demand, traders that were long corn rushed for the exits.

All of this is, of course, good news for the poultry industry. The wild card of much higher grain prices appears to have been removed. Corn and soybean prices are now expected to remain much the same in the next crop year as they are in this crop year. The rally that took corn from \$3.50 per bushel to \$4.50 per bushel appears to be reversing itself.

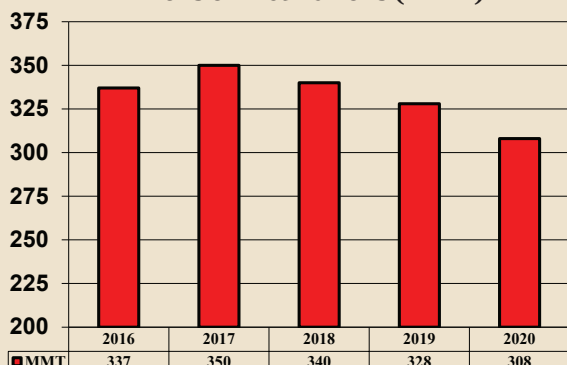
US Corn Supply and Demand - August 2019
 USDA Billions of Bushels

	2017-2018	2018-2019	2019-2020
Harvest	14,609	14,420	13,901
Supply Total	16,939	16,590	16,311
Ethanol	5,605	5,425	5,475
Exports	2,438	2,100	2,050
Feed	5,304	5,275	5,175
Total Use	14,799	14,230	14,130
Ending Inventory	2,140	2,360	2,181
Farm Price	\$3.36	\$3.60	\$3.60

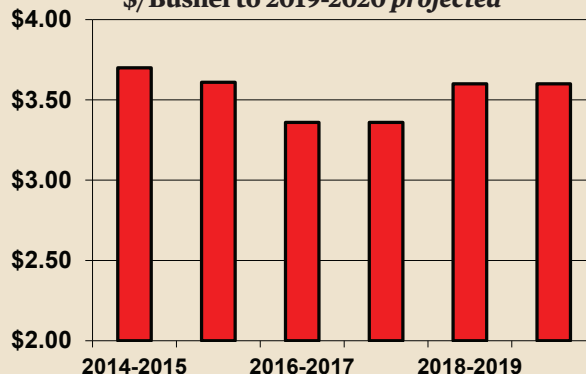
US Ending Stock of Corn - Millions of Bushels



World Ending Stock of Corn
 Millions of Metric Tons (MMT)



Average US Farm Price of Corn
 \$/Bushel to 2019-2020 projected



Soybeans

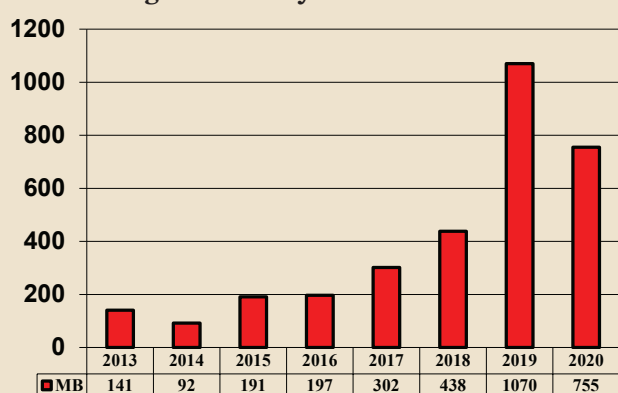
The August surprise on the soybean side was how few soybeans will be produced in the US this year. The expected shift in acreage from corn to soybeans apparently never happened. Both acres planted and yield were pegged below trade expectations. Normally a surprise like that would lead to higher prices. However, with ample ending stocks this year and the continued trade war with China, soybean prices remained about the same after the August USDA report.

US soybean ending stocks rose an unusual amount this crop year due to the trade war with China. Yet to be determined are future trade politics. However, it now appears that a trade deal with China may be far in the future. Assuming no deal, soybean meal prices are likely to fall somewhat next crop year despite the lower production. The USDA does predict a slightly lower price of SBM next crop year.

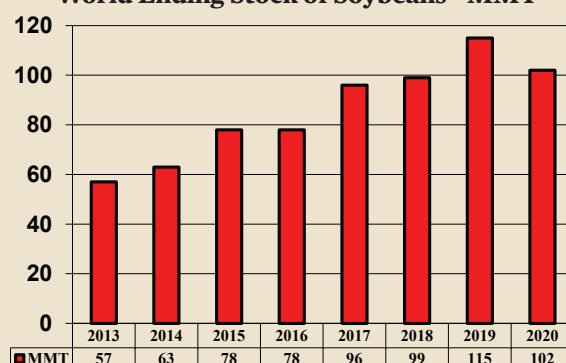
US Soybeans - USDA - August - Billions of Bushels

	2017-2018	2018-2019	2019-2020
Harvest	4,412	4,544	3,680
Export	2,129	1,700	1,775
Total Use	4,297	3,929	4,016
Ending Inventory	438	1070	755
Meal Price short ton	\$345	\$310	\$300

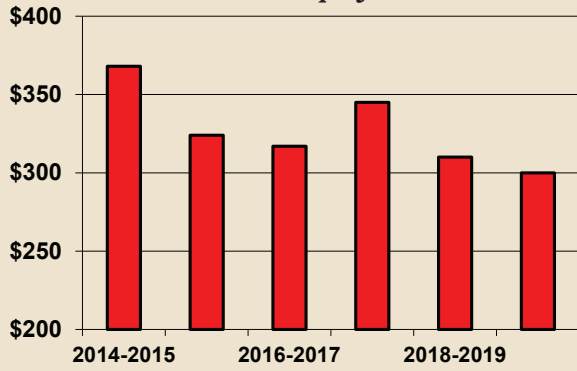
US Ending Stock of Soybeans - Millions of Bushels



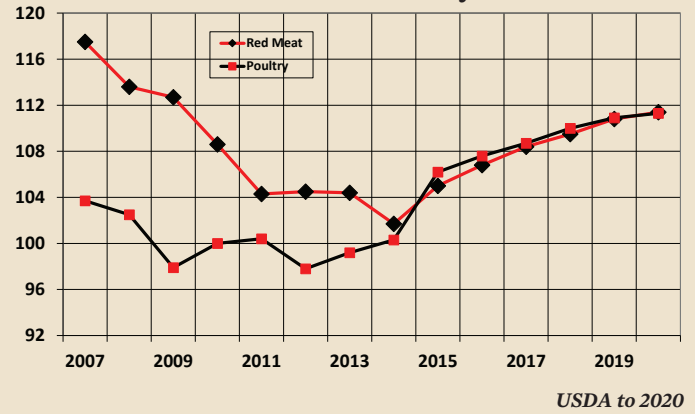
World Ending Stock of Soybeans - MMT



**Average US Crop Year Price of Soybean Meal
2018-2019 projected**



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



US Chicken Industry

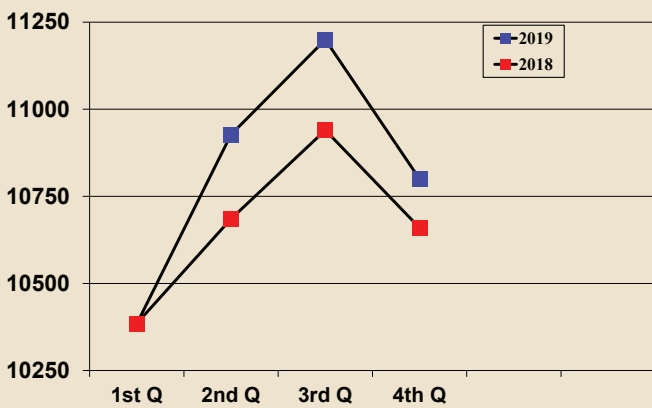
China, as well as other Asian countries, are suffering a major decline in pork production due to African Swine Fever (ASF). Pork production could fall by 16 million metric tons in China alone. That huge shortfall in pork production would normally have resulted in sharply increased exports of US pork to China if not for the trade war. Without China as a market, pork prices have been falling in the US.

The falling price of pork weakens chicken prices. Although the USDA expects chicken production to rise only 1.6% this year and 1.1% next year, the price of the front half of the chicken is under pressure due to the ample supply of competing meats. With the recent fall in grain prices, the rest of 2019 is looking to be profitable despite lower deboned breast meat prices.

Per Capita Consumption in Pounds - US

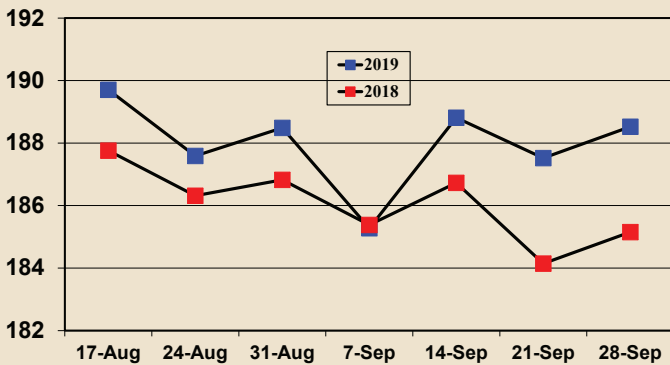
	Pork	Beef	Chicken	Turkey	Total
2006	49	66	87	18	220
2007	51	65	85	18	219
2008	49	63	83	18	213
2009	50	61	80	17	208
2010	48	60	82	16	206
2011	46	57	83	16	205
2012	46	57	80	16	202
2013	47	56	82	16	201
2014	46	54	83	16	202
2015	50	54	89	16	211
2016	50	56	90	17	215
2017	50	57	91	16	217
2018	51	57	92	16	219
2019	52	57	93	16	221
2020	52	58	94	16	222

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



A clue to future supply can be found in the number of chicks being placed by the industry. The number of chicks placed is rising at a rate of about 1%. Since the average weight of chickens processed this year is up less than 1%, total production increases this year appear to be headed for a number less than 2%.

**Weekly Chick Placement - Millions
7 Weeks Forward - 2019 versus 2018**

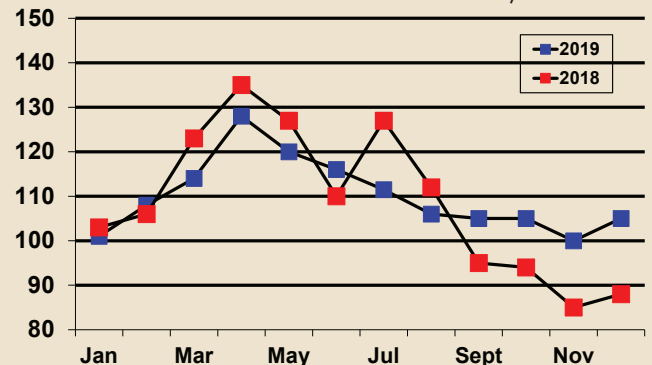


From 2014 to 2019, US meat consumption of both red meat and poultry rose steadily year after year. However, per capita consumption may be near the top of the cycle. At the top of the last cycle, consumption reached 220 pounds in 2006, then fell to 201 pounds during the great recession. Now, near the top of the cycle, consumption is 221 pounds divided exactly equally between red meat and poultry. The tie will be broken when the next economic recession starts. Red meat consumption is likely to fall in the next recession as poultry consumption holds steady or even rises. It appears that consumption at the top of the current cycle will reach 224 pounds.

Deboned Breast

For decades the price of US skinless boneless breast (SBB), was much higher than the rest of the world. Last year the price of US SBB fell, astonishingly, to below the world price. This year prices started out lower than the peak price last year but are likely to end the year higher than the lowest price at the end of last year. Nevertheless, the price of SBB is unusually low by recent standards. The new normal may be close to \$1 per pound.

**Deboned Breast - 2018-2019
USDA - Northeast Price - Cents/lb**

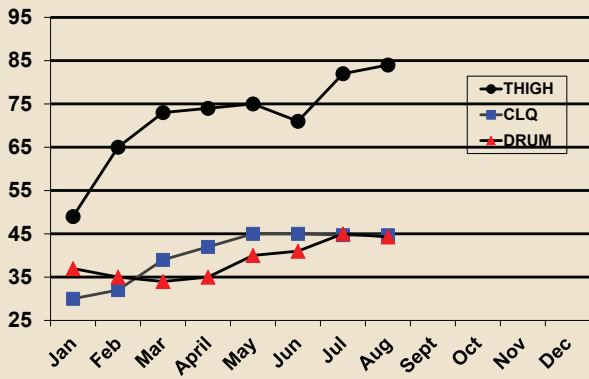


Leg Quarters

Trade issues loom large in the calculation of leg quarter prices this year. There is no firm trade deal with Mexico yet, only a preliminary agreement. Mexico is the number one destination for US chicken exports buying nearly one billion pounds of leg quarters per year. Cuba is also an important buyer and trade with that country might be disrupted. If a miracle should happen and China opens up to the US, that country would become a significant buyer of leg quarters (and paws).

Despite trade uncertainties, leg quarter prices are higher this year helped by steady exports and an increase in the domestic demand for leg quarters. A growing acceptance of boneless dark meat means that skinless boneless thigh (SBT) is now in much greater demand. As can be seen on the following graph, the price of bone-in thighs (many to be deboned) rose from 50 cents in January to 85 cents recently, helping to keep leg quarter prices much higher than last year.

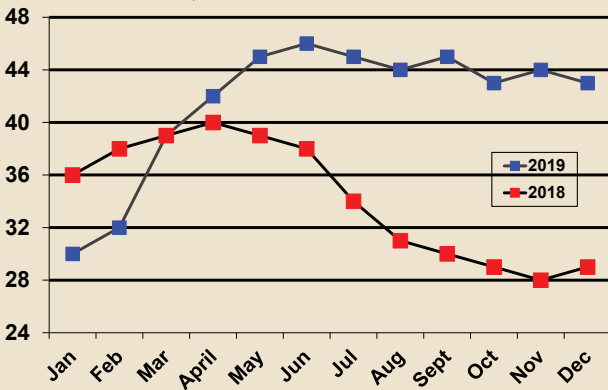
Leg Quarter, Thigh, Drum Price 2019
Cents/lb - USDA Northeast Price



December 2019

Leg Quarters	\$ 0.44 per pound
Deboned Breast	\$ 1.06 per pound
Wings	\$ 1.91
Chicago Corn	\$ 3.71 per bushel
Soybean Meal	\$ 300/Ton
Total Cost of Wholesale Chicken	\$ 0.74
Revenue	\$ 0.77
Gain (Loss) per pound	\$ 0.03

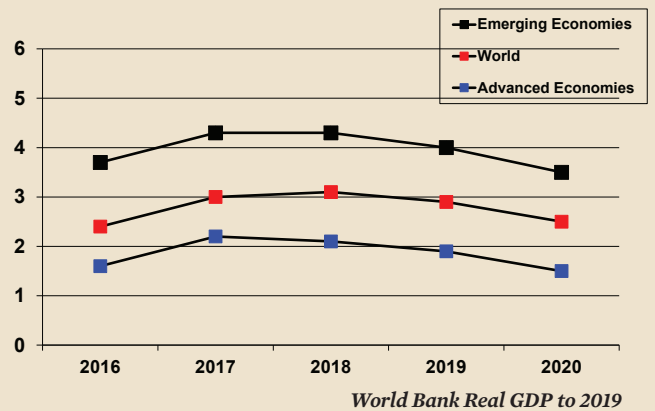
Leg Quarter Price - 2018-2019
Cents/lb - USDA Northeast Price



World Chicken Growth Rate

World economic growth was rising in 2017 but started to slow down in 2018. It is increasingly likely that world economic growth will decline in the next few years. Declining world economic growth usually restricts the ability of the world chicken industry to grow. However, given sharply declining world pork production, chicken growth should rise to 3% in 2020 to make up for the shortage of pork.

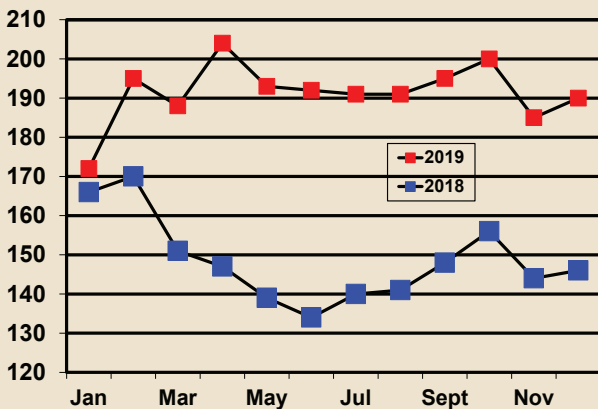
Economic Growth Rate



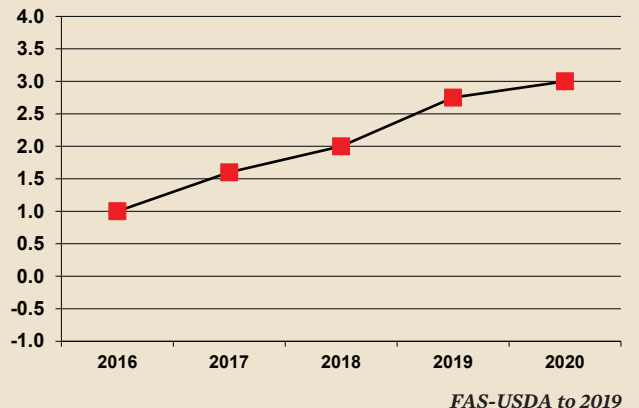
Wings

Wings are a bright spot for chicken producers and prices can be expected to remain higher than last year. Low unemployment and rising wages, in addition to a slow growing supply, creates the perfect conditions for high wing prices.

Whole Wing Prices - 2018-2019
USDA - Northeast Price



World Chicken Growth Rate in %



The production of chicken in the US became, for a short time, highly profitable earlier this year as chicken prices rose. Since then grain prices rose and then fell as front half chicken prices fell. The industry is still profitable although not as profitable as it was at the beginning of the year. Although prices of all commodities are likely to be volatile this fall, they could all end up in December at the same level as August.

August 2019

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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.