

Broiler Economics

By Dr. Paul Aho

DATA, FINALLY

For the last month, analysts were flying blind with no data from the USDA. Luckily it was during a time of the year that does not normally create any grain headlines. The northern hemisphere harvest was done and well-measured, planting had not begun and some data from South America continued to arrive by other means. Nevertheless, curiosity was growing about the supply of grain and meat. Now the blanks can be filled in.

When a slug of data was finally released on February 8th there were no huge surprises. The production of corn was lowered by 200 million bushels and the production of soybeans was lowered by 50 million bushels both due to lower yields. The grain stocks report which came out at the same time showed a 5% decrease in the stock of corn and a 12% increase in that of soybeans on December 1 last year. Estimates for the production of meat and poultry were both reduced for 2019. The combination of lower grain production combined with slightly lower meat and poultry production left ending grain inventories nearly the same as earlier numbers. Therefore, there was no drama on the commodity market in Chicago when the data was released.

In South America, the projected soybean harvest was reduced slightly due to some drought in Brazil and too much water in Argentina. However, supplies from South America will be larger than last year so the fundamentals remain the same. The only real surprise from the massive data dump on February 8th was that there was nothing dramatic or surprising.

Now market observers and traders can return to the real drama of trade negotiations between China and the US. The 25% Chinese tariff on US soybeans is still in place but surely is a bargaining chip in the negotiations. As things stand now, soybeans in South America are relatively more valuable than soybeans in the US because of the tariff. If the tariff goes away, prices in Chicago will rise significantly. So far, the negotiations are going slowly and there is no sign that a deal will be reached before the March 1st deadline.

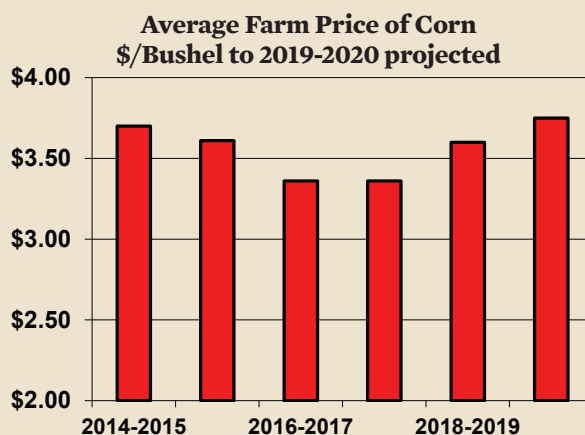
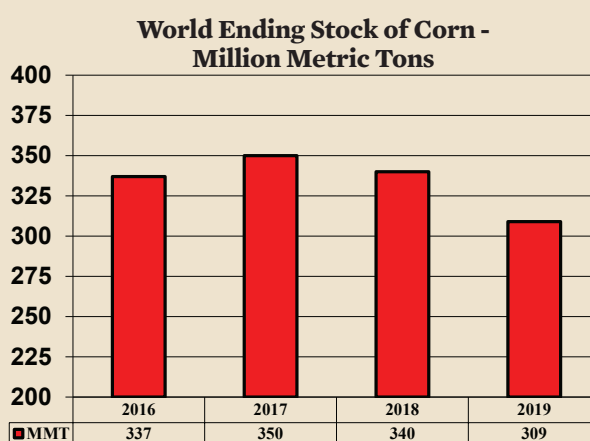
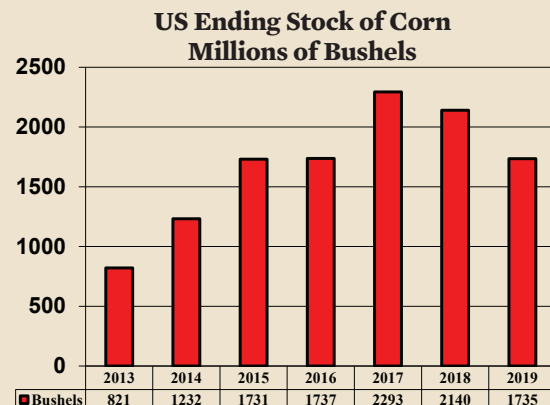
Despite the current beneficial grain price climate for most grain users, low prices will not last. Grain prices appear to be at the bottom of a long-term cycle. The next move would therefore more likely be up than down. Corn may move up in this crop year even if soybeans continue to fall. However, by 2019-2020 it can be expected that both corn and soybean prices will be rising at the beginning of a cycle upward in grain and commodity prices.

Corn

The February USDA World Agricultural Supply and Demand Estimates (WASDE) report projects a lower US and world ending corn stock in 2019. Falling world stocks normally signal the end of a period of low prices. However, the beginning of the next bull market may be delayed because of a possible slowdown in the world economy and the effects of the trade war. With many farmers in the US shifting from soybeans to corn this year, corn prices may increase slowly, if at all, this crop year.

US Corn Supply and Demand – February 2019 USDA Billions of Bushels

	2016-17	2017-18	2018-19
Harvest	15.148	14.609	14,420
Supply Total	16.942	16.939	16,600
Ethanol	5.432	5.605	5,575
Exports	2.294	2.438	2,450
Feed	5.470	5.304	5,375
Total Use	14.649	14.799	14,865
Ending Inventory	2.293	2.140	1,735
Farm Price	\$3.36	\$3.36	\$3.60



Soybeans

In marked contrast to corn, US and world soybean stocks are rising not falling. Soybean meal prices rose last crop year due to the drought in Argentina and then plummeted because of the Trade War between China and the US combined with clearly abundant supplies worldwide.

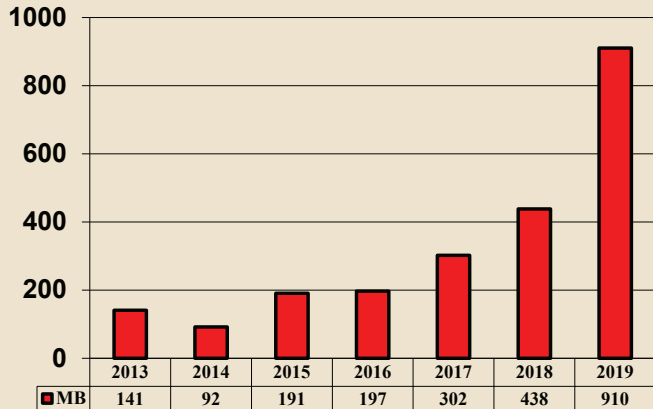
With increased demand from China for South American soybeans this crop year and good weather, production will increase rapidly in that part of the world. US production is likely to fall in 2019-2020 as farmers shift from soybeans to corn. Soybean meal prices probably reached their lowest point with the harvest low last fall. Prices are likely to rise from this point as soybeans, like corn, enter into a new long-term cycle of rising prices.

US ending stocks rose an unusual amount due to the trade war with China. The effect of that increase is already reflected in the market price. Yet to be determined are the trade politics of 2019. China may purchase a considerable amount of US soybeans this year or very little.

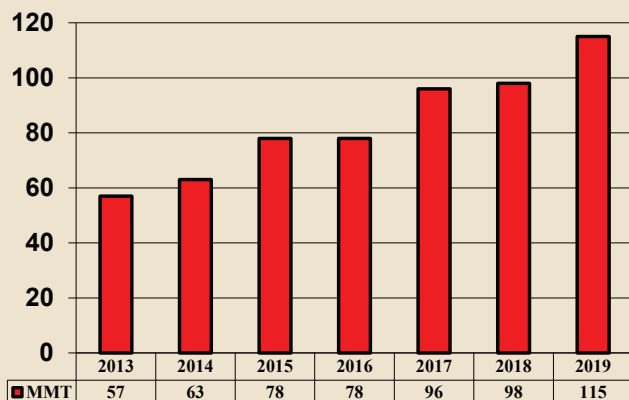
US Soybeans – USDA - February
Billions of Bushels

	2016-17	2017-18	2018-19
Harvest	4.296	4.412	4,544
Export	2.166	2.129	1,875
Total Use	4.214	4.297	4,092
Ending Inventory	302	438	910
Meal Price short ton	\$317	\$345	\$315

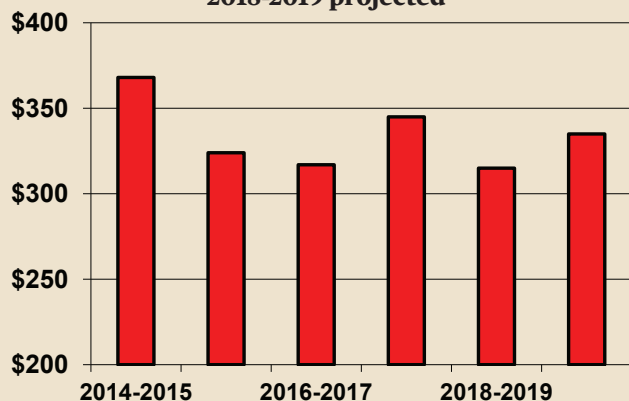
US Ending Stock of Soybeans
Millions of Bushels



World Ending Stock of Soybeans
Millions of Metric Tons



Average Crop Year Price of Soybean Meal
2018-2019 projected



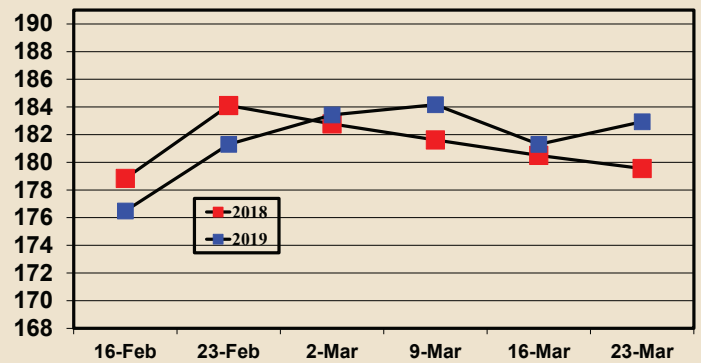
US Chicken Industry

The domestic supply of meat in the US rose by 2.3 billion pounds in 2018, an unusually aggressive increase in supply. The result, for the chicken industry, was a substantial drop in prices. After years of profitable production, the chicken industry is now operating at a loss that will continue at least through the winter.

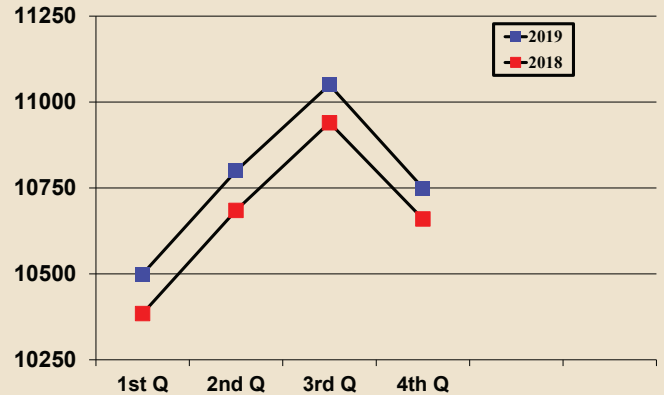
Given the sharp drop in chicken prices, it would be no surprise if the rate of increase in chicken production drops this year. Production rose 2.1% in 2018 and the USDA expects production to rise by only 1.4% this year. How could that be possible since new plants are expected to open next year? The answer is that there may be some plant closings that accompany plant openings.

A clue to future supply can be found in the number of chicks being placed by the industry. Just published numbers show no increase in production at all for the months of February and March. Clearly the industry has tapped the brakes on production. The USDA projects (correctly) a small production increase for each quarter of 2019.

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



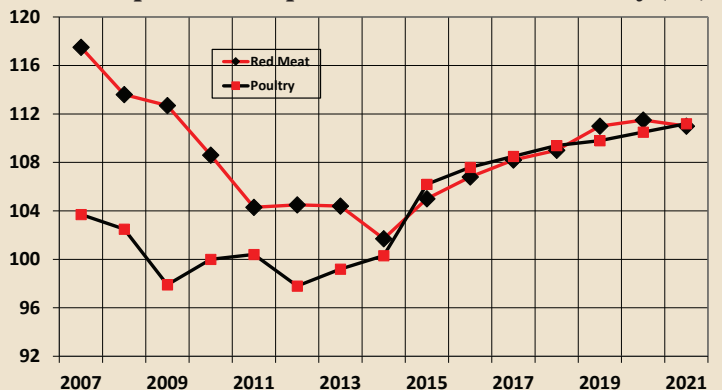
US Quarterly Broiler Production
Million Pounds - USDA



Total per capita red meat consumption has recently been rising faster than poultry consumption. This is logical given three factors; 1) low grain prices help poor feed converting animals; 2) rising median income and 3) the time lag for increased red meat production. As all of these factors will reverse in the coming years, poultry consumption will, if history is a guide, once again outperform red meat consumption. “Outperform” may mean staying the same while red meat consumption falls.

The US meat industry as a whole may be reaching market saturation. Consumption reached 220 pounds in 2006, then fell to 201 during the great recession and now, after many years, has returned to 220. That may be close to the average going forward with some years higher than 220 and some years lower than 220. If that is true, the competition with red meat will become a zero-sum game. If red meat loses, poultry will win an equal amount and vice versa.

US Per Capita Consumption of Red Meat and Poultry (lbs)



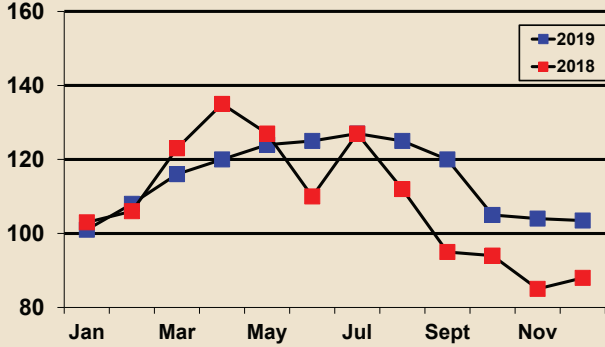
Per Capita Consumption in Pounds - US

	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	58	92	16	221

Deboned Breast

The seasonal peak for skinless boneless breast (SBB), came early last year and was disappointing. SBB later fell to below one dollar per pound (Northeast Price). This year it can be expected that prices will reach a similar seasonal peak but not fall to the lows of last year. Late last year the price dropped so much that it dropped below the world price. For decades US SBB was much higher than world prices, sometimes double world prices. To be the same as the world price was astounding.

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



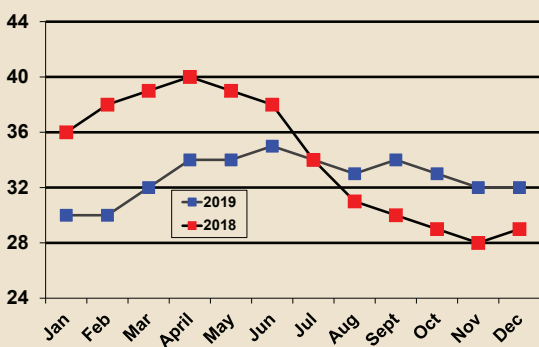
Leg Quarters

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. If a miracle should happen and China opens up to the US, that country could also become a significant buyer of leg quarters (and paws).

Leg quarter prices fell last year and are now just 30 cents USDA Northeast Price (There is a range in prices for leg quarters with many leg quarters sold at a price even lower than the published Northeast price). Part of the reason for the fall in leg quarter prices is the strong dollar. All things being equal, the stronger dollar reduces the demand for US leg quarters. Current leg quarter prices are as low as they have ever been when adjusted for inflation.

Given the extraordinary situation of low leg quarter prices and low SBB price, the industry is likely to reduce production and prices are likely to normalize. To a certain extent that is already happening.

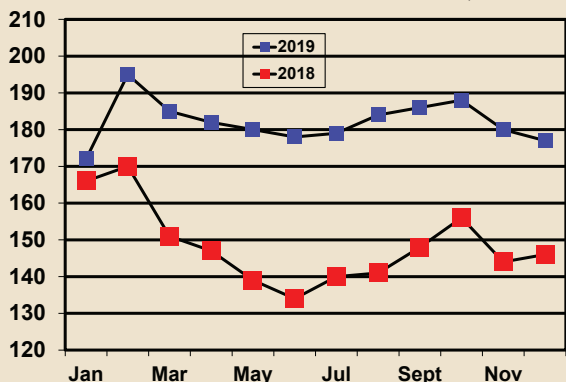
**Leg Quarter Price - 2018-2019
USDA - Northeast Price - Cents/lb**



Wings

The bright spot for chicken producers is the price of wings. They have risen spectacularly this year. Prices can be expected to remain far above last year's prices. People want their wings in the US and with a low unemployment rate and rising wages they have the wherewithal to buy the wings they want.

**Whole Wing Prices - 2018-2019
USDA - Northeast Price - Cents/lb**



The production of chicken in the US was highly unprofitable late last year. Since then, SBB and wing prices have improved significantly, and the industry is less unprofitable. Seasonal high prices could even turn the industry profitable later this year.

February 2019

Leg Quarters	\$ 0.30 per pound
Deboned Breast	\$ 1.08 per pound
Wings	\$ 1.94
Chicago Corn	\$ 3.74 per bushel
Soybean Meal	\$ 306/Ton
Total Cost of Eviscerated Chicken	\$ 0.74
Revenue	\$ 0.70
Gain (Loss) per pound	(\$ 0.04)

July 2019

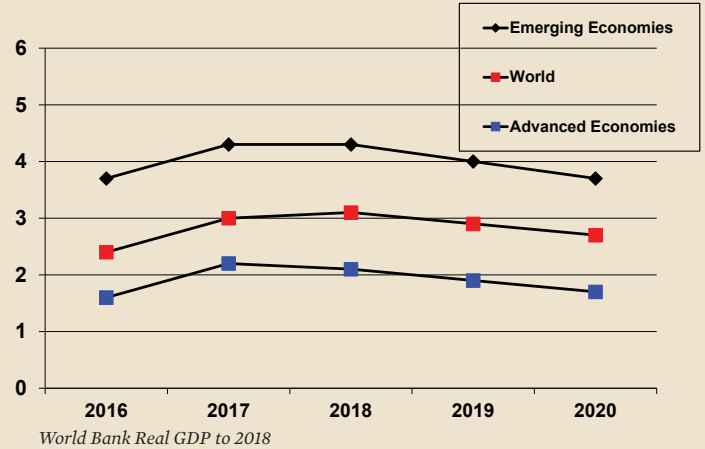
Leg Quarters	\$ 0.32 per pound
Deboned Breast	\$ 1.25 per pound
Wings	\$ 1.80
Chicago Corn	\$ 3.76 per bushel
Soybean Meal	\$ 312/Ton
Total Cost of Eviscerated Chicken	\$ 0.74
Revenue	\$ 0.76
Gain (Loss) per pound	\$ 0.02

World Chicken Growth Rate

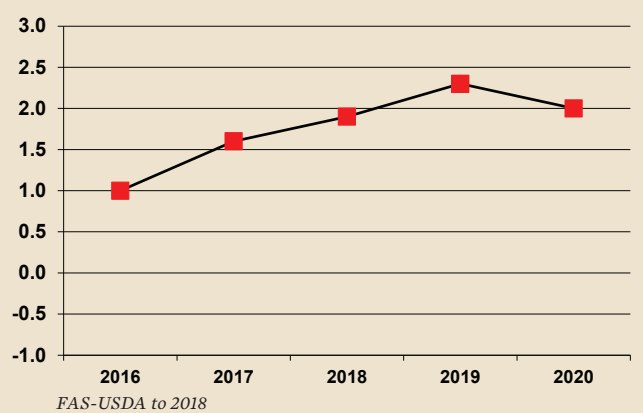
World economic growth was rising in 2017 but started to slow down in 2018. Given trade issues, it is increasingly likely that world economic growth will decline in the next few years. Declining world economic growth will eventually restrict the ability of the world chicken industry to grow.

The long-term world chicken production growth appears to be 2%. The USDA expects world growth to slightly exceed 2% in 2019. However, if the world economy falters and/or grain prices increase the growth rate could decline somewhat in 2020.

Economic Growth Rate



World Chicken Growth Rate in %



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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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