

Broiler Economics

By Dr. Paul Aho

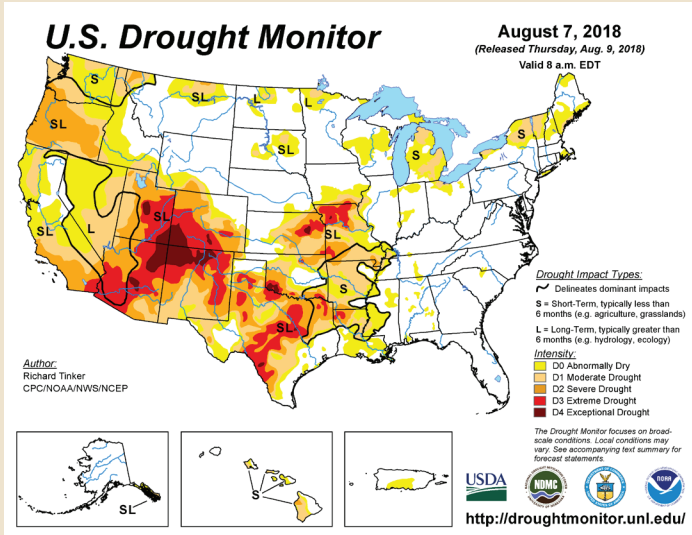
TRADE WAR CREATES SOYBEAN WINDFALL

The poultry industry got an unexpected boost in the last two months as soybean meal prices dropped in response to the China/US Trade War. Since a 25% tariff on US soybeans was announced by China in June, the price of soybean meal dropped by \$70 per ton in many countries except, of course, in China.

If the tariff remains in place, there will be a shift in the production and trade of soybeans. Production will increase in South America and decrease in the US. US farmers will shift some production from soybeans to corn. After a period of unusually low soybean prices over the next year, soybean prices are likely to rise worldwide. Corn is not as affected by trade wars (so far), however, corn could be affected if Mexico imposes a tariff on US corn and begins to import more corn from South America.

As the trade wars rage on, the weather in the US Corn Belt has been close to ideal, putting further pressure on grain prices and providing an even greater windfall to poultry producers. The USDA now characterizes 72% of the corn crop as in Good or Excellent condition compared to 62% last year. As the drought monitor shows, there are few signs of drought in the Corn Belt. For the moment, a normal or even bumper crop of corn and soybeans can be expected this year.

Despite the current beneficial grain price climate for grain users, the good prices may not last. Trade wars inevitably reduce efficiency and end up increasing prices in the long run not only for those behind a tariff wall but for all grain users. In addition, grain prices appear to be at the bottom of a long term cycle and the next move would therefore more likely to be an upward one.



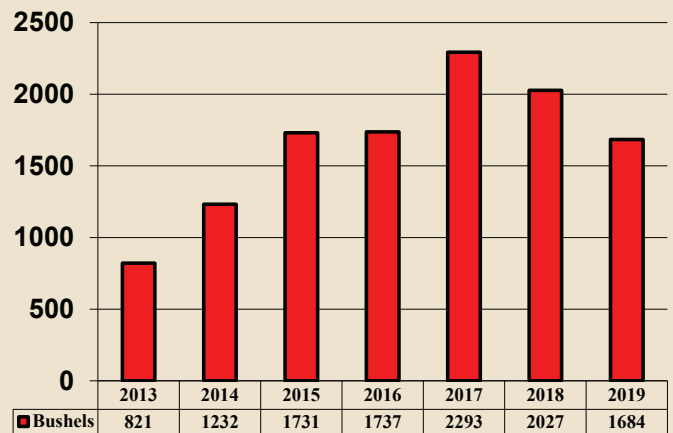
Corn

The August USDA World Agricultural Supply and Demand Estimates (WASDE report) projects a lower ending stock of US corn this crop year. In addition, world ending stock is expected to drop by 34 million metric tons this crop year and another 38 million tons next crop year. Falling world stocks normally signal the end of a period of low prices. Although the corn market may now be in a new long-term bull market, the price will not go up in a straight line. In the last two months, corn prices dropped in response to the trade wars and good weather in the US Corn Belt. With soybeans under pressure and increased corn production in the US next year, corn prices may move sideways next year despite the bullish signal from falling inventory.

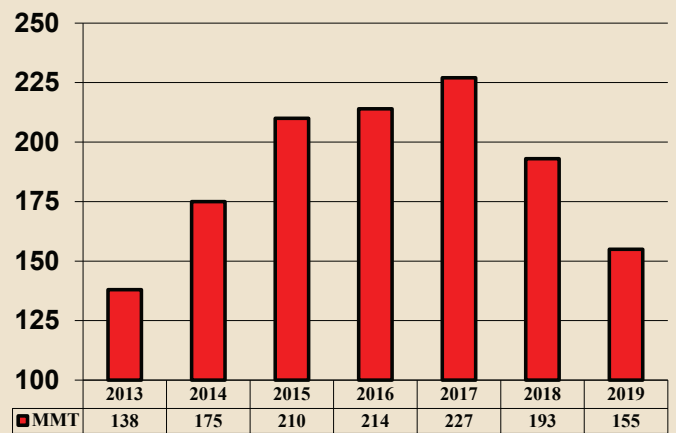
US Corn Supply and Demand – August
USDA Billions of Bushels

	2016-2017	2017-2018	2018-2019
Harvest	15.148	14.604	14,586
Supply Total	16.942	16.937	16,664
Ethanol	5.470	5.450	5,525
Exports	2.294	2.400	2,350
Feed	5.470	5.450	5,525
Total Use	14.649	14.910	14,980
Ending Inventory	2.293	2.027	1,684
Farm Price	\$3.36	\$3.40	\$3.60

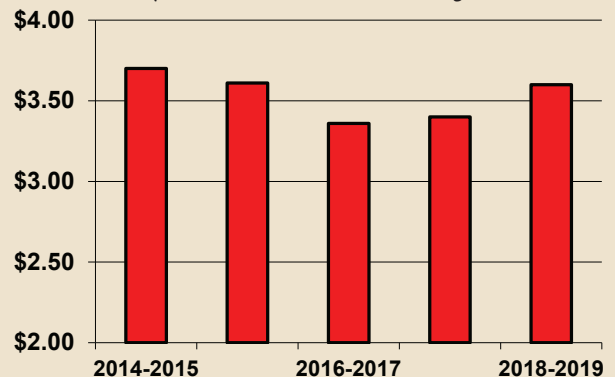
US Ending Stock of Corn
Millions of Bushels



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



Average Farm Price of Corn
\$/Bushel to 2018-2019 Projected



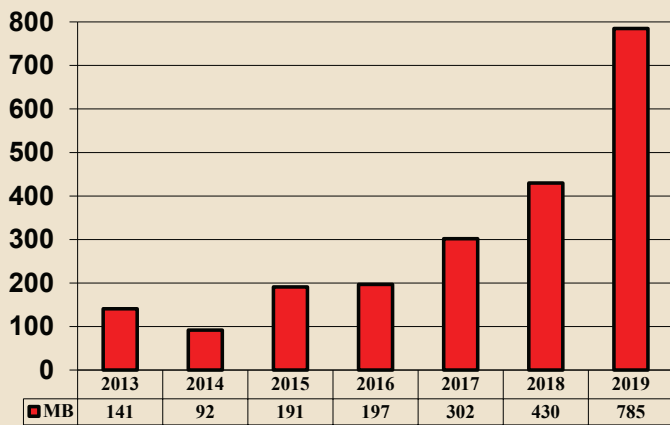
Soybeans

The August USDA WASDE shows that both US and world soybean stocks are rising, a surprising reversal from earlier expectations. Soybean meal prices rose substantially earlier this 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 in North America. With increased demand from China for South American soybeans next year, expectations are that production will increase rapidly in that part of the world. Even with a projected reduction in total acres, US production is expected to increase due to rapidly rising yield. For the moment, the direction arrow is down for soybean meal prices with no clear indication of when prices will rebound. Eventually soybeans, like corn, will enter into a new long term cycle of rising prices. However, for the moment, ending inventory is rising and the bottom of the cycle is yet to have been reached.

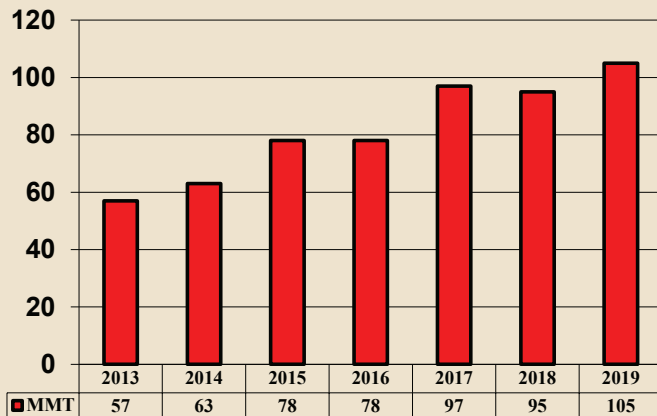
US Soybeans – USDA - August – Billions of Bushels

	2016-2017	2017-2018	2018-2019
Harvest	4,296	4,392	4,586
Export	2,166	2,110	2,060
Total Use	4,214	4,286	4,256
Ending Inventory	302	430	785
Meal Price short ton	\$317	\$350	\$315

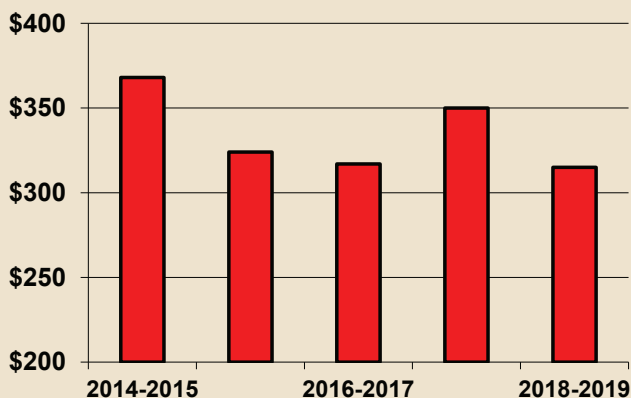
US Ending Stock of Soybeans in Millions of Bushels



World Ending Stock of Soybeans - MMT



Average Crop Year Price of Soybean Meal 2018-2019 Projected



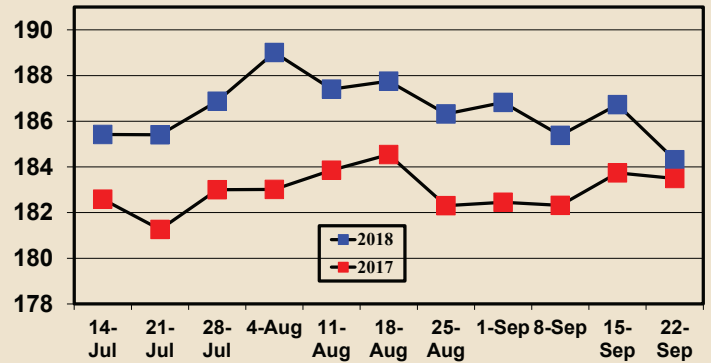
US Chicken Industry

The USDA expects US production of chicken meat to increase 2.3% this year. In contrast, red meat production is expected to rise 3.9% after increasing 3.3% in 2017. This large increase in red meat production puts pressure on all meat prices. In addition, tariffs that have already been imposed on pork, as well as the possible future tariffs on chicken due to trade wars, create a difficult environment for chicken prices.

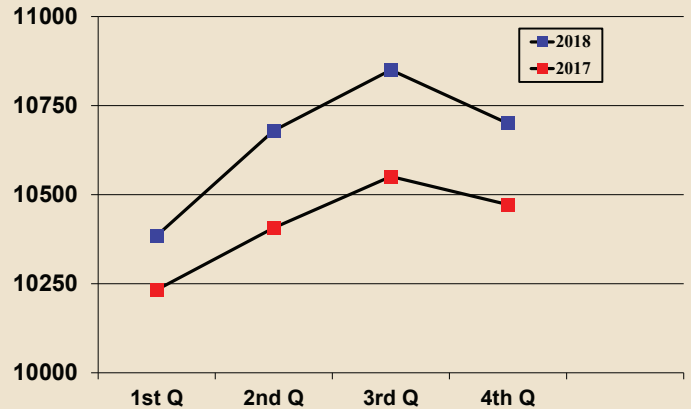
The graph below shows weekly chick placement in millions moved forward 7 weeks to estimate chickens processed. Using this method of estimation, processing numbers are running at about 2% over last year, a number consistent with the USDA estimates for increased production this year.

The chicken industry has announced plans to open six new plants in a short period of time. Despite this flurry of construction, the impact will be minimal. The impact is muted because of the recent slowdown in the increase in average weights in the industry and the fact that new plants need to be built just to maintain a relatively low rate of increase of production each year.

Weekly Chick Placement - Millions 7 Weeks Forward - 2018 versus 2017



US Quarterly Broiler Production Million Pounds - USDA

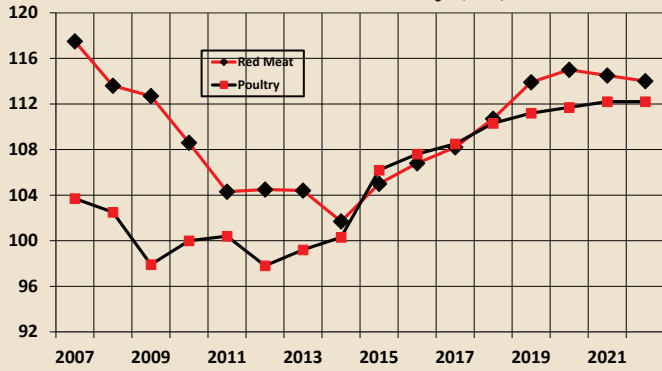


This year, falling grain prices are helping the poultry industry but not enough to counteract the effects of increased competition from red meat. Total per capita red meat consumption has recently been rising faster than poultry consumption. This is logical given three factors; 1) low grain prices help poor converting animals; 2) rising median income and 3) the time lag for increased red meat production. When these factors change, 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.

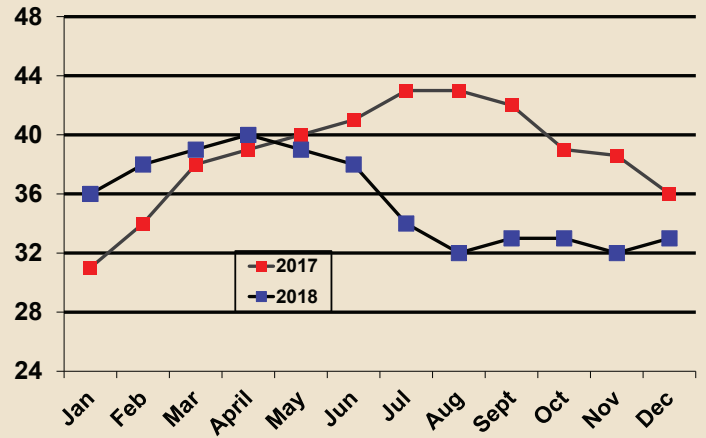
The US meat industry as a whole may be reaching market saturation. Consumption reached 220 pounds in 2006 and then took 12 years to return to 220. It took a long time in part due to a severe recession; nevertheless, the difficulty of returning to 220 pounds may be an indication that there may not be all that many more pounds to go before reaching "peak meat".

So far there has not been any bad news from Mexico regarding US chicken leg quarter exports to that country. NAFTA negotiations are still ongoing and there is no way to predict what will happen in the end. Mexico is the number one destination for US chicken exports, buying more than one billion pounds of leg quarters per year. Any disruption in trade with Mexico would have severe consequences for the US chicken industry.

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



Leg Quarter Price - 2017-2018 Cents/lb - USDA Northeast Price



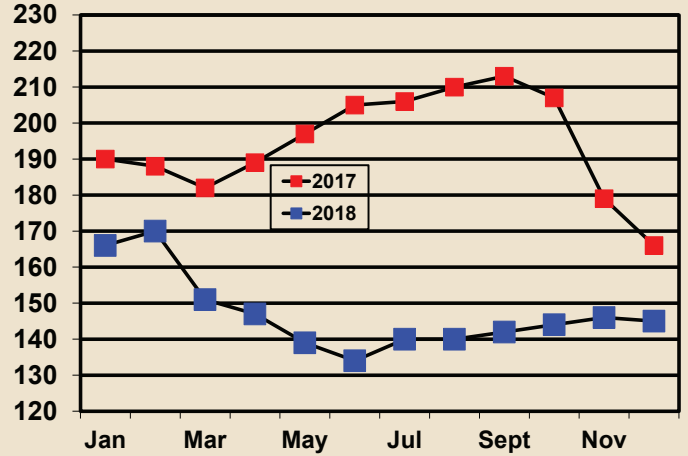
Per Capita Consumption in Pounds - US

	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	52	58	93	16	221
2019	54	59	94	16	225

Wings

The price of wings rose counter-seasonally last summer. As the price difference between deboned breast and wings became ever wider, there was the inevitable substitution of “boneless wings” (deboned breast meat) for bone-in wings. As that trend gathered speed, wing prices fell back down to earth. This year prices will remain well below the highest levels of last year. However, if wing prices return to normal patterns, the price will increase this fall.

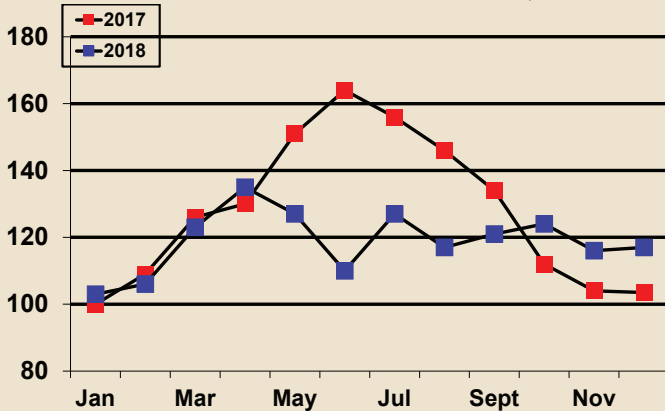
Whole Wing Prices - 2017-2018 USDA - Northeast Price - Cents/lb



Deboned Breast

Prices for deboned breast meat dropped this year at the time of year when they are most likely to rise. The issue appears to be more red meat and a lack of food service demand. The price has dropped so much recently that a rebound might well occur later in the year.

Deboned Breast - 2017-2018 USDA - Northeast Price - Cents/lb



The production of chicken in the US was highly profitable last year but profitability fell in 2018 as competing meats and weak food service demand reduced prices despite help from lower grain prices. At the moment, production is slightly profitable and may remain slightly profitable for the rest of the year.

August 2018

Leg Quarters	\$ 0.32 per pound
Deboned Breast	\$ 1.17 per pound
Wings	\$ 1.40
Chicago Corn	\$ 3.57 per bushel
Soybean Meal	\$ 323 per Ton
Total Cost of Eviscerated Chicken	\$ 0.67
Revenue	\$ 0.68
Gain (Loss) per pound	\$ 0.01

December 2018

Leg Quarters	\$ 0.32 per pound
Deboned Breast	\$ 1.17 per pound
Wings	\$ 1.45
Chicago Corn	\$ 3.57 per bushel
Soybean Meal	\$ 300 per Ton
Total Cost of Eviscerated Chicken	\$ 0.67
Revenue	\$ 0.68
Gain (Loss) per pound	\$ 0.01

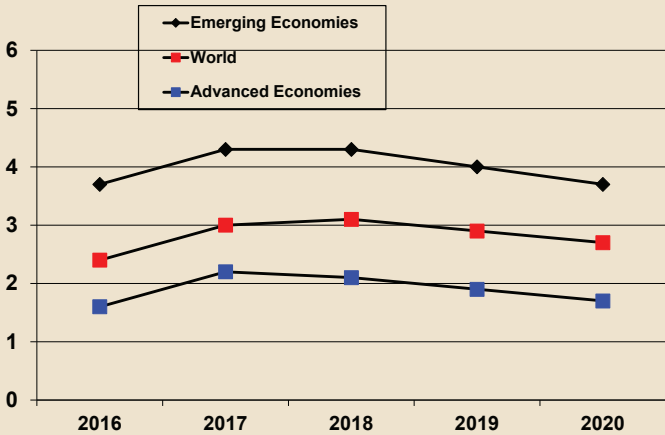
Leg Quarters

Leg quarter prices have also been falling recently and are now below 32 cents USDA Northeast Price (There is a range in prices for leg quarters with many leg quarters sold at a price 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. In addition, it is foremost in the minds of traders that if trade relations with Mexico deteriorate, leg quarter prices would drop.

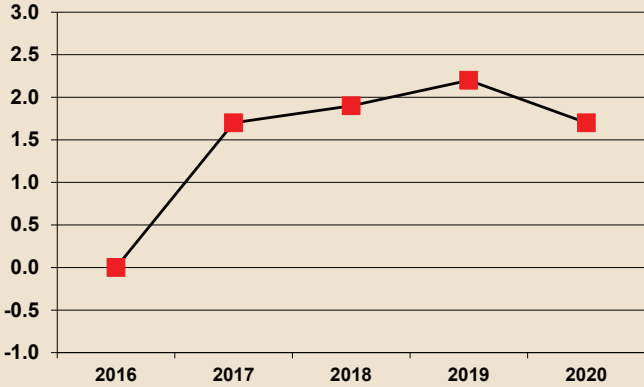
World Chicken Growth Rate

World economic growth and per capita income were both rising recently. However, since a trade war seems inevitable, it is increasingly likely that world economic growth will decline. Declining world economic growth would restrict the ability of the world chicken industry to grow. Although the long-term world chicken production growth appears to be 2%, the world may under perform if trade wars cause a reduction in trade and economic growth.

Economic Growth Rate



World Chicken Growth Rate %



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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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