

Broiler Economics

By Dr. Paul Aho

LOTS OF CORN AND SOYBEANS

For buyers of corn and soybeans these are the best of times. Despite worrisome floods in the US Midwest, grain prices are low and are expected to remain low for quite a while. Prices are low because the harvest in South America is better than expected and grain supplies are plentiful everywhere.

The never-ending trade drama between China and the US continues without resolution. 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 as they fall in South America.

It is important to remember that 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 major move will eventually be up. By 2020-2021 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.

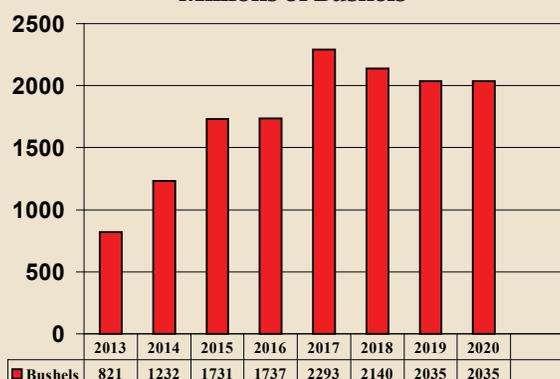
Corn

The April USDA World Agricultural Supply and Demand Estimates (WASDE) report projects a lower use of corn than earlier expected and only a slightly lower ending stock. World ending corn stocks are down in 2019 primarily due to China. 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 slowdown in the world economy and the effects of the trade war. With some farmers in the US shifting from corn to soybeans this year, due to flooding, corn prices may be able to increase somewhat.

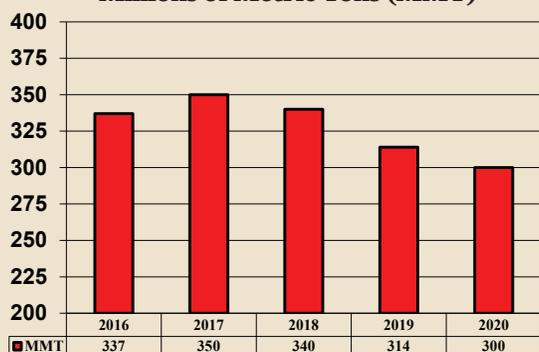
US Corn Supply and Demand – April 2019
USDA Billions of Bushels

	2016-2017	2017-2018	2018-2019
Harvest	15.148	14.609	14,420
Supply Total	16.942	16.939	16,600
Ethanol	5.432	5.605	5,500
Exports	2.294	2.438	2,300
Feed	5.470	5.304	5,300
Total Use	14.649	14.799	14,565
Ending Inventory	2.293	2.140	2,035
Farm Price	\$ 3.36	\$ 3.36	\$ 3.55

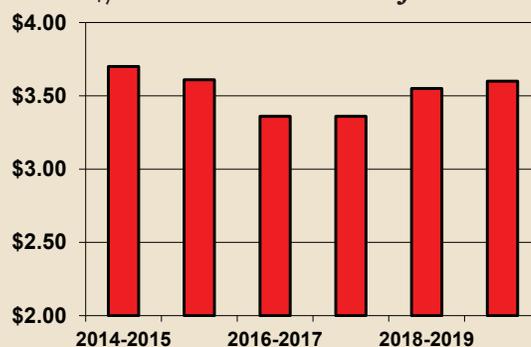
US Ending Stock of Corn
Millions of Bushels



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



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



Soybeans

In marked contrast to corn, US and world soybean stocks are still rising. Soybean meal prices in the US 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 abundant supplies worldwide.

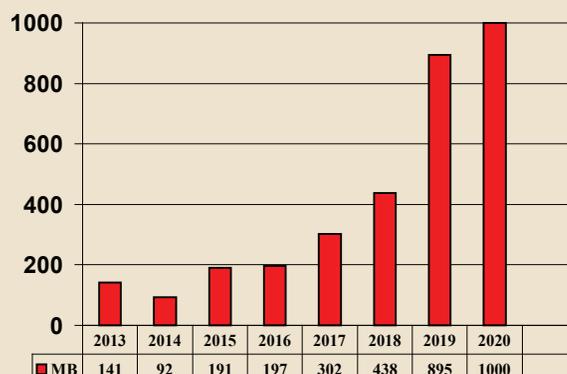
With increased demand from China for South American soybeans this crop year, production will increase rapidly in that part of the world. US production is unlikely to fall in 2019-2020 as some farmers in flood areas are forced to plant late and therefore must plant soybeans instead of corn. Soybean meal prices may not have reached their lowest point yet in this cycle. Prices will eventually rise but it looks like it will be 2021-2022 at the earliest.

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 future trade politics. China may purchase a considerable amount of US soybeans this year or very little.

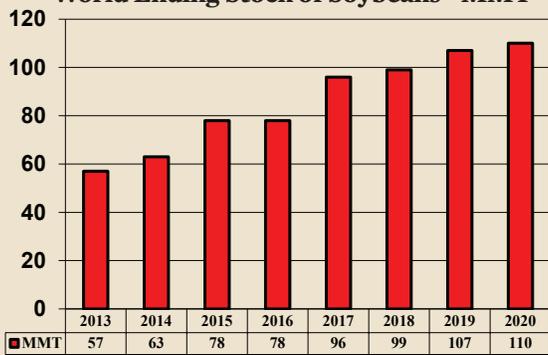
US Soybeans – USDA - April – Billions of Bushels

	2016-2017	2017-2018	2018-2019
Harvest	4.296	4.412	4,544
Export	2.166	2.129	1,875
Total Use	4.214	4.297	4,104
Ending Inventory	302	438	895
Meal Price short ton	\$ 317	\$ 345	\$ 315

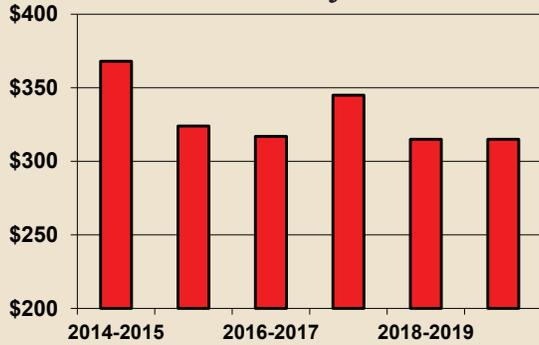
US Ending Stock of Soybeans
Millions of Bushels



World Ending Stock of Soybeans - MMT



Average Crop Year Price of Soybean Meal 2018-2019 Projected



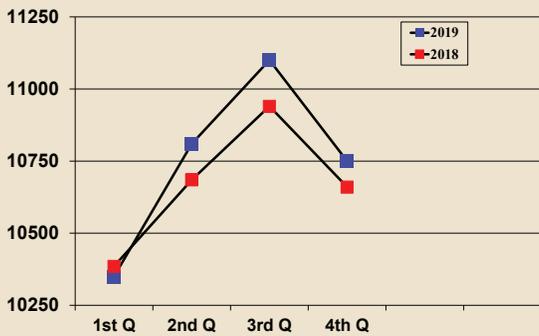
US Chicken Industry

In the last two months it has become evident that China is suffering a major decline in pork production due to African Swine Fever. It is estimated that the decline in pork production in China this year will be equal to the total production of pork in the US. That huge shortfall in pork production is resulting in sharply increased exports of US pork to China (trade war or no trade war) and higher pork prices in the US. Higher pork prices, in turn, are leading to higher beef and chicken prices.

The year started off with fears of chicken overproduction that would lead to massive losses. In the last two months the situation changed dramatically. Now it appears that increased demand will outpace increased supply. With continued low grain prices, the rest of 2019 is looking like a surprisingly profitable year.

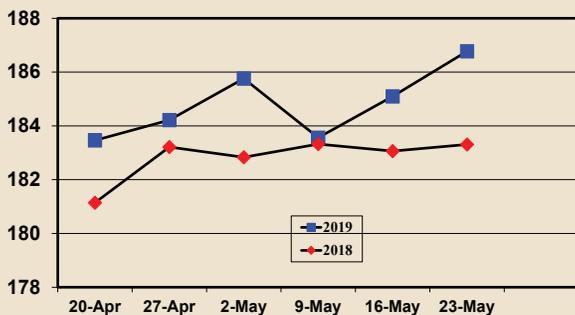
In the face of a sudden increased demand for chicken, production paradoxically declined in the first quarter of the year in part due to the fears mentioned above. However, production will undoubtedly expand through the rest of the year. The USDA expects production to rise by only 1.0% this year. Given the suddenly favorable market conditions, that prediction may turn out to be low.

US Quarterly Broiler Production Million Pounds - USDA



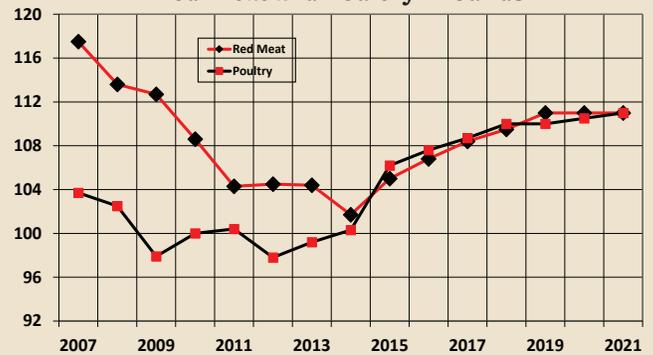
A clue to future supply can be found in the number of chicks being placed by the industry. After tapping the brakes earlier this year, production looks like it will accelerate starting in May.

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



From 2014 to this year, consumption of both red meat and poultry rose robustly year after year. However, the US meat industry may be reaching market saturation. Consumption reached 220 pounds in 2006, then fell to 201 pounds during the great recession and now, after many years, has returned to 220 divided equally between red meat and poultry. That may be close to the average going forward. If that is true, 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 - Pounds



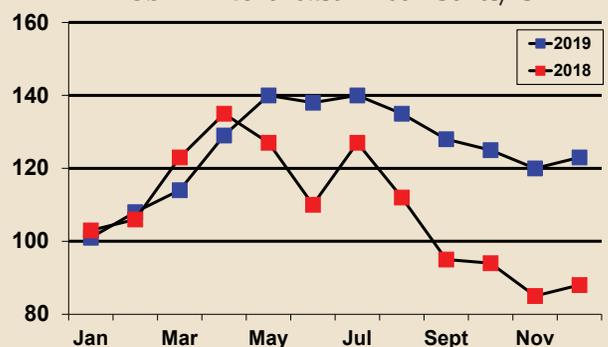
Per Capita Consumption in Pounds - US

Year	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	93	16	221

Deboned Breast

The seasonal peak for skinless boneless breast (SBB) came early last year and was disappointing. The spot price of SBB later fell, astoundingly, to below the world price of SBB. This year, thanks to the sudden increase in all meat prices, prices are likely to reach a higher seasonal peak and end the year higher than 2018.

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

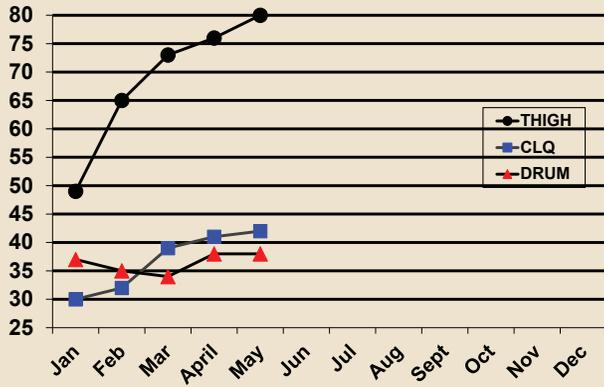


Leg Quarters

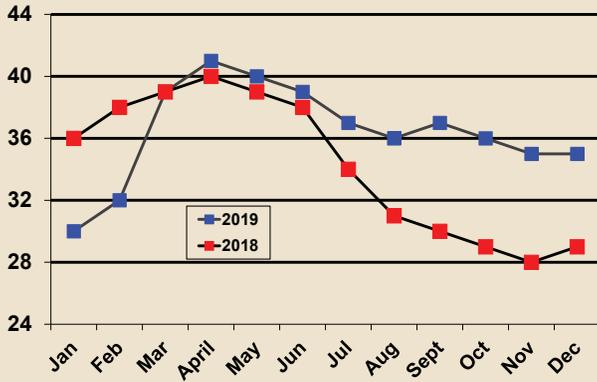
Trade issues loom large in the calculation of leg quarter prices this year. There is no firm trade deal with Mexico yet, only a preliminary agreement. Mexico is the number one destination for US chicken exports buying nearly one billion pounds of leg quarters per year. If a miracle should happen and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

Despite trade uncertainties, leg quarter prices are on the rise helped by steady exports and a sudden increase in the domestic demand for leg quarters. The domestic demand is for deboned thigh meat. The combination of the increase in the price of SBB and an 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 75 cents recently helping to bring up the price of leg quarters in general.

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



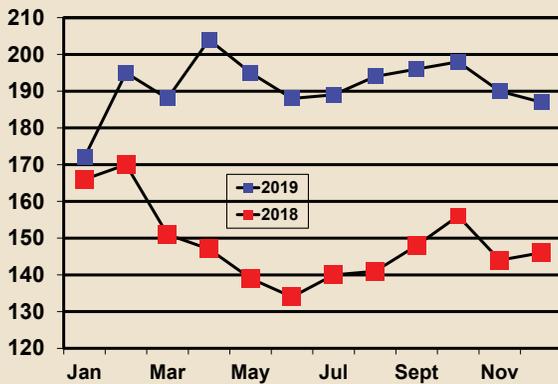
**Leg Quarter Price - 2018-2019
USDA - Northeast Price - Cents/lb**



Wings

Wings are always a bright spot for chicken producers especially when meat prices in general are rising. Wing prices have risen spectacularly this year. Prices can be expected to remain far above last year's prices. Low unemployment rate and rising wages in addition to an increase in the price of competing meats and a slow growing supply creates the perfect conditions for high wing prices.

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



The production of chicken in the US was unprofitable late last year. Since then, all chicken prices have risen significantly. The industry is now highly profitable, an unexpected development that should continue for the rest of the year.

April 2019

Leg Quarters	\$ 0.42 per pound
Deboned Breast	\$ 1.27 per pound
Wings	\$ 2.01
Chicago Corn	\$ 3.58 per bushel
Soybean Meal	\$ 307/Ton
Total Cost of Wholesale Chicken	\$ 0.74
Revenue	\$ 0.82
Gain (Loss) per pound	\$ 0.08

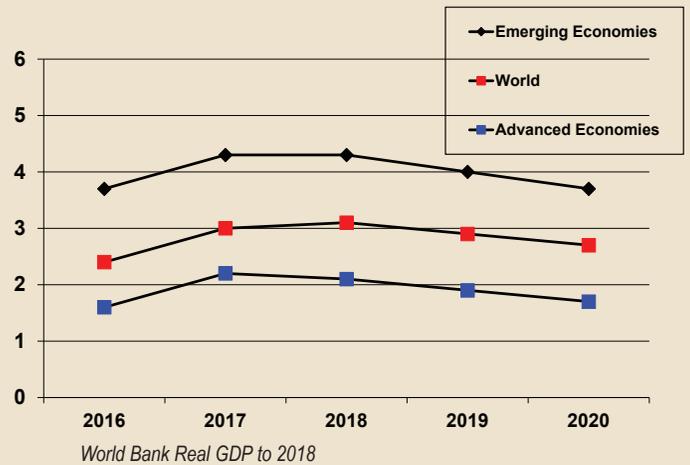
July 2019

Leg Quarters	\$ 0.37 per pound
Deboned Breast	\$ 1.40 per pound
Wings	\$ 1.90
Chicago Corn	\$ 3.76 per bushel
Soybean Meal	\$ 312/Ton
Total Cost of Wholesale Chicken	\$ 0.75
Revenue	\$ 0.82
Gain (Loss) per pound	\$ 0.07

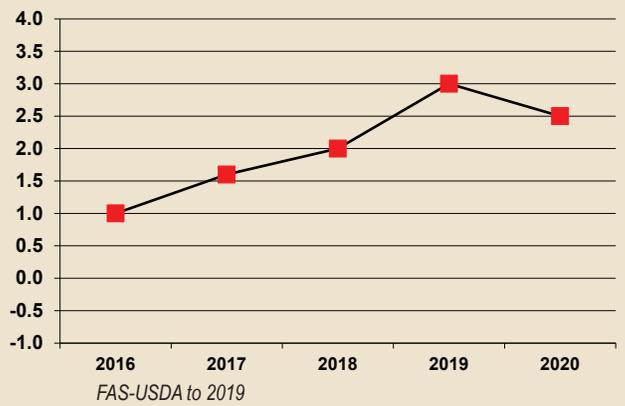
World Chicken Growth Rate

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 should restrict the ability of the world chicken industry to grow. Nevertheless, the USDA expects world growth to be 3% in 2019 in part due to rapid growth in China. The long-term chicken growth rate is more likely to be 2% rather than 3%.

Economic Growth Rate



World Chicken Growth Rate in %



About the Author - Paul W. Aho, Ph.D.
email: PaulAho@PaulAho.com

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.