

BROILER ECONOMICS

By Dr. Paul Aho

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CORN HIGHER -- SOYBEANS LOWER

A lot of rain fell in the US Midwest Corn Belt this spring. As a result, the corn crop was planted late and has been slow to emerge. Some corn was planted twice due to standing water and other fields will be switched to soybeans instead of corn as the clock runs out on planting corn. While better weather appears to be on the way, it is a safe bet that corn yields will be down this year. When combined with fewer acres, the result will be somewhat higher prices. Soybeans may actually see increased production as some acres are shifted to soybeans from corn. The end result of all this is that, over the next few months, corn prices may rise at the same time as soybean prices fall.

Despite concerns about the US crop, in South America an abundant harvest of corn and soybeans is now surging into the world market. As a result, poultry producers worldwide should continue to enjoy relatively low prices for both corn and soybeans this year.

Corn

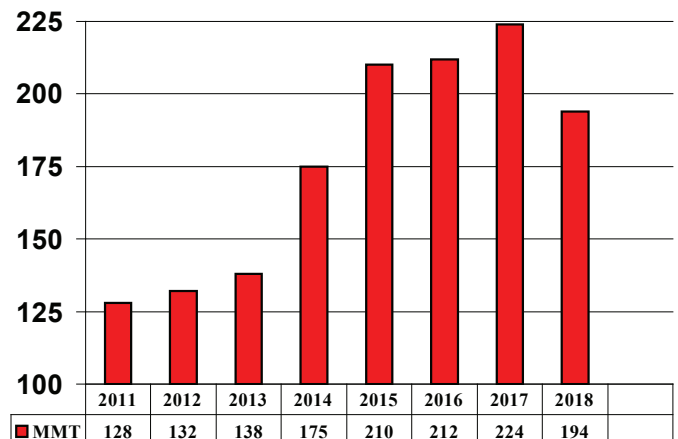
The July World Agricultural Supply and Demand Estimates (WASDE report) estimates world-ending stock in 2017 to be 224 million tons, up 12 million tons from 2016. This sharp increase is, of course, beneficial to the users of grain. It is, nevertheless, important to remember that grain prices and in particular, corn prices may already be past their low point for this cycle.

The June WASDE projects that ending US corn stock will rise once again in 2017. However, 2018 could see the beginning of a decline in ending inventory both in the US and for the world as a whole.

**US Corn Supply and Demand - June
USDA Billions of Bushels**

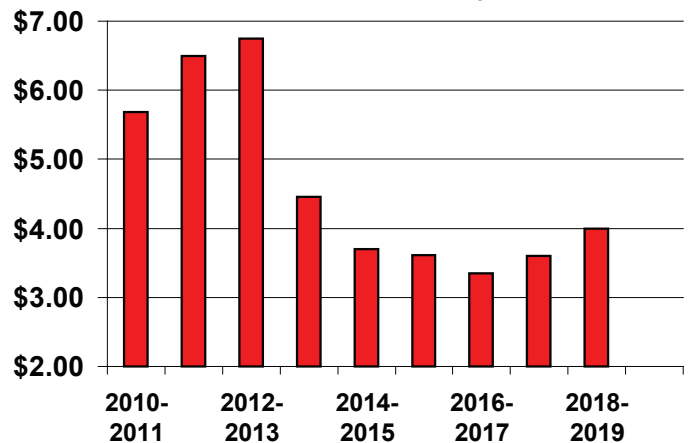
	2015-16	2016-17	2017-18
Harvest	13.602	15.148	14.065
Supply Total	15.401	16.940	16.410
Ethanol	5.206	5.450	5.500
Exports	1.898	2.225	1.875
Feed	5.131	5.500	5.425
Total Use	13.662	14.645	14.300
Ending Inventory	1.737	2.295	2.110
Farm Price	\$3.61	\$3.35	3.40

**World-ending Stock of Corn
(Millions of Metric Tons)**



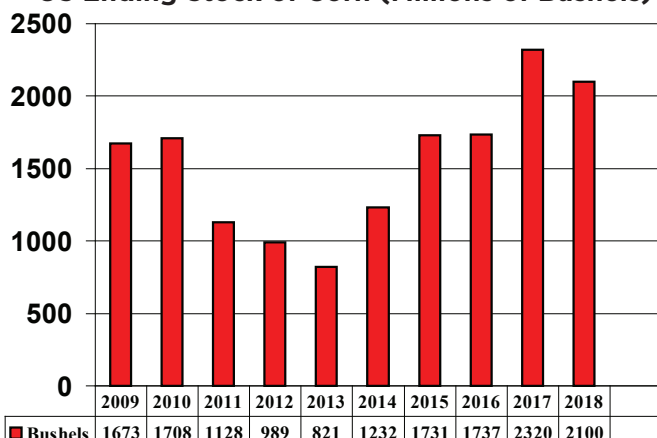
For the short term, prices are likely to rise because of the wet spring in the US. In crop year 2017-18 prices are likely to rise in part due to the shift of millions of acres this year from corn to soybeans in the US. By 2018-19 the average price could be at least \$4.00 per bushel (\$160 per metric ton).

**Average Farm Price of Corn
\$/Bushel to 2018-19 Projection**



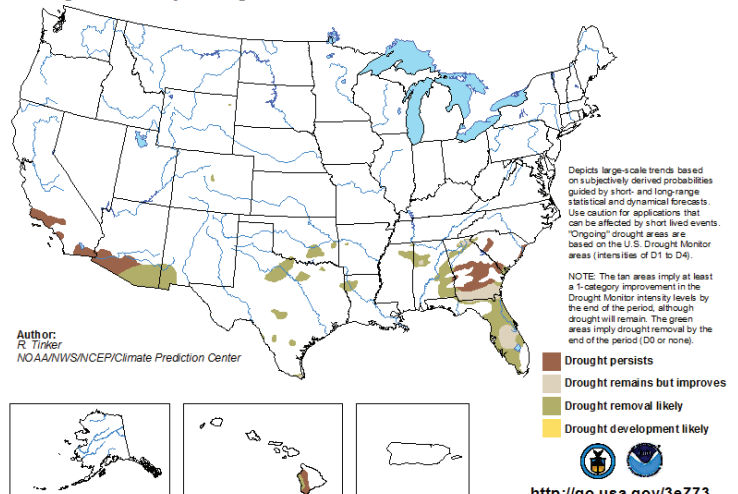
The remaining unknown is the weather this crop year. The US Seasonal Drought Outlook is not calling for a drought in the Corn Belt. The map is remarkably free of any indication of a drought.

US Ending Stock of Corn (Millions of Bushels)



**U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period**

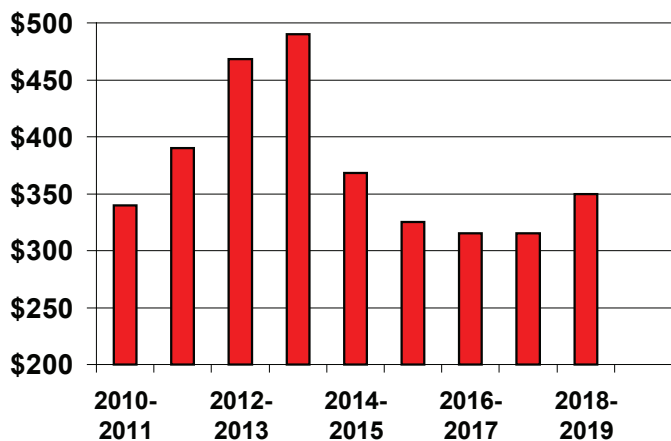
Valid for May 18 - August 31, 2017
Released May 18, 2017



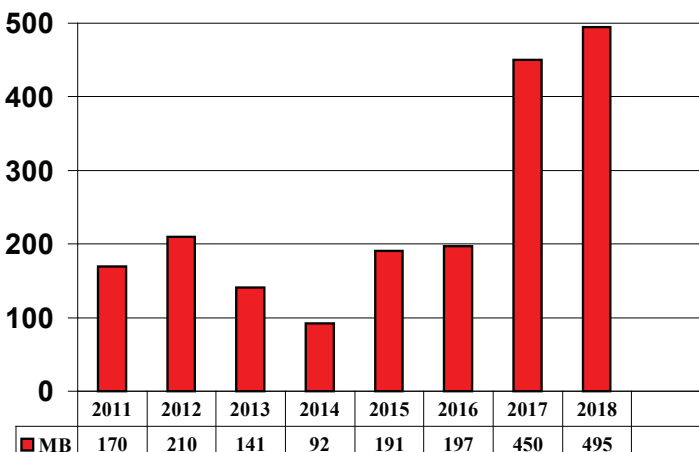
Soybeans

Exports of US soybeans were robust in the last few months but came to a halt as South America filled their export pipeline. World-ending supply is high. The US and world-ending stock is expected to rise substantially this crop year. However, world-ending stock is expected to fall in crop year 2018-19. As a result, unlike the corn market, the bottom of the soybean market may be a few months away but like corn, prices are likely to be rising by 2018-19.

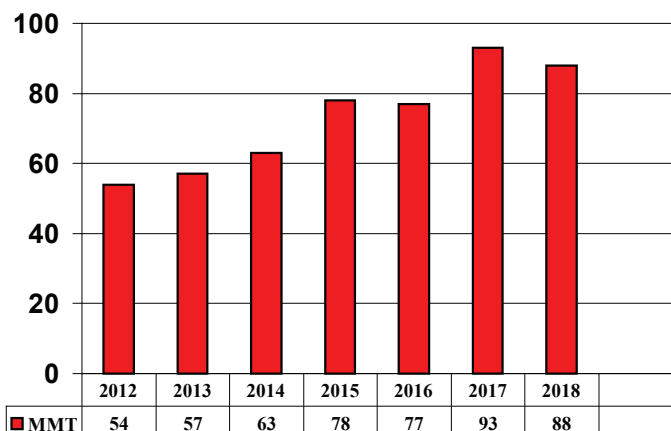
Average Crop Year Price of Soybean Meal to 2018-19 Projections



US-Ending Stock of Soybeans in Millions of Bushels



World-Ending Stock of Soybeans in Millions of Metric Tons



US Soybeans - USDA - June - Billions of Bushels

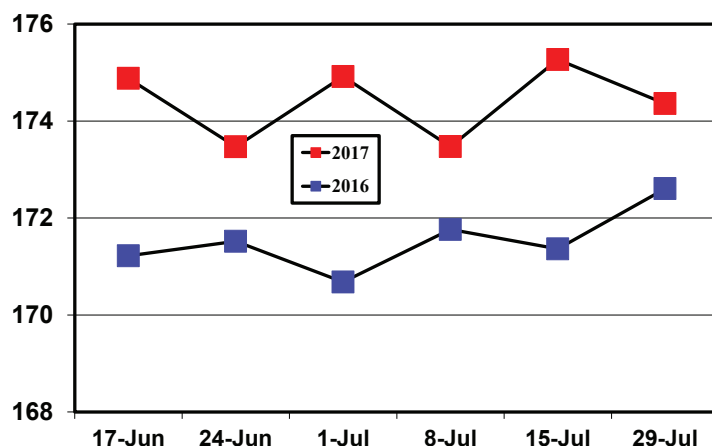
	2015-16	2016-17	2017-18
Harvest	3.926	4.307	4.255
Export	1.886	1.910	2.150
Total Use	3.944	4.078	4.235
Ending Inventory	197	450	495
Meal Price short ton	\$325	\$315	\$315

Chicken Industry Production

The USDA now expects US production of chicken meat to increase just 1.8% this year. The increase is low due in part to the fact that the average weight of live chickens is decreasing even as the total number of birds continues to rise. It is highly unusual for the average weight of chickens in the US to decrease.

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 close to 2% over last year. However, this is before calculating the change in weight.

Weekly Chick Placement - Millions 7 Weeks Forward - 2017 versus 2016

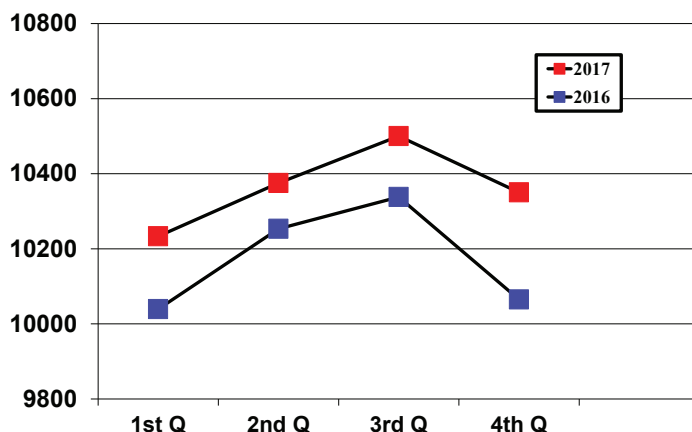


Some companies are lowering the weight of their chickens grown for deboning. The production of the largest size category of chickens reported by the USDA, those with a live weight of 7.76 lbs. and up, is down 7% so far this year while the category of chickens weighing 6.26 to 7.75 pounds is up by 8%. Altogether, the average weight of US chickens is dropping this year is a highly unusual situation. Given the decreasing weight of chickens, total production will rise only 1.8% or perhaps even less.

January to May - Total Chickens Processed

	6.26 to 7.75 Live Weight	7.76 and up Live Weight
2016	720,269,000	743,003,000
2017	776,556,000	687,855,000

US Quarterly Broiler Production Million Pounds - USDA

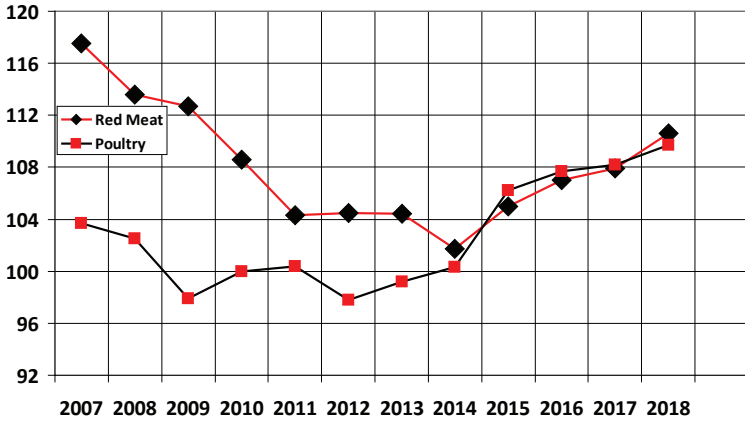


The combination of low grain prices and restricted supply ensures high profitability this year barring a black swan event such as bird flu or a trade dispute with Mexico. Mexico is the number one destination for US chicken exports, buying more than one billion pounds of leg quarters per year. Any disruption in trade with Mexico would have severe consequences for the US chicken industry. In the last few months the possibility of a trade war with Mexico appears to have diminished.

Chicken prices are not under pressure from increased production of red meats. Although there will be an additional 1 billion pounds of red meat available for domestic use, demand appears to be outpacing the supply of both poultry and red meat. This is due in part to rising median income. When grain prices start rising again and/or the growth in median income once again slows down or drops, only then will supply outpace demand.

It is interesting to note that total per capita meat consumption in 2018 may finally return to the levels of 2006. It took 12 years to return to the meat consumption levels prior to the recession.

US Per Capita Consumption of Red Meat and Poultry in Pounds

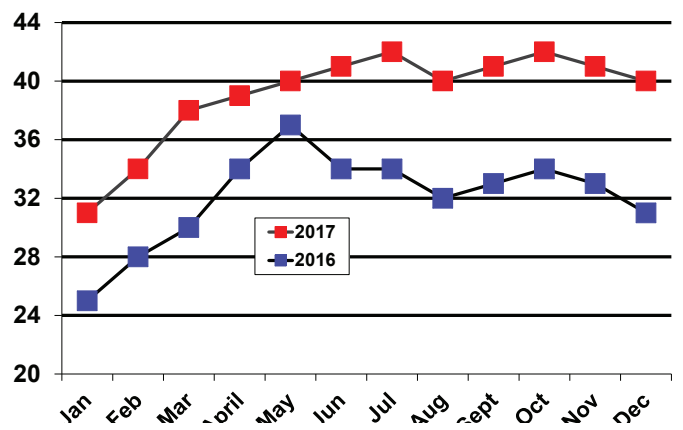


Leg Quarters

The highest price for leg quarters last year was reached in May at 37 cents (Northeast Price). There is, of course, a range in prices for leg quarters with many leg quarters sold at a price lower than the published Northeast price.

For 2017, trade policy with Mexico will be a key factor. If a trade war with Mexico can be avoided, leg quarter prices should remain at around current levels close to 40 cents. Trade tensions with Mexico have eased in the last few months and the Mexican Peso has recovered indicating that the markets expect little or no change in trade policy.

**Leg Quarter Price - 2016-17
USDA - Northeast Price - Cents/lb**



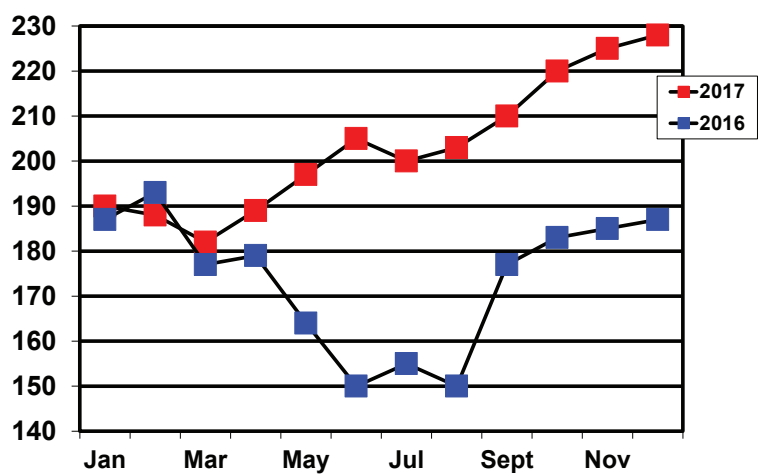
Per Capita Consumption Per Capita in Pounds - US

	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	56	90	17	216
2018	51	58	91	17	220

Wings

Wings are an amazing bright spot for the US chicken industry. Demand for wings is growing rapidly while supply is relatively constrained. The price of wings is now rising in the summer when they should not be rising. When autumn comes and demand increases seasonally, wings will soar even higher.

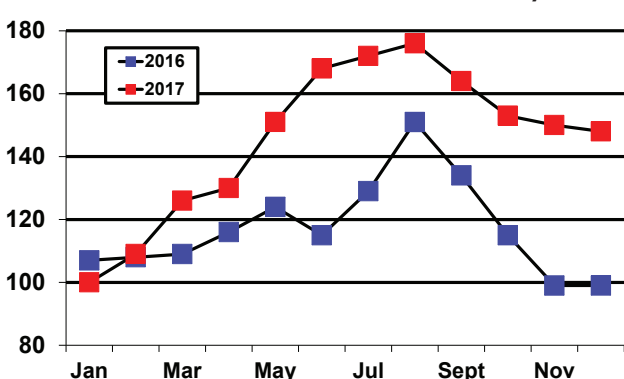
**Whole Wing Prices - 2016-17
USDA - Northeast Price - Cents/lb**



Deboned Breast

Prices for breast meat are much higher than last year. Due to the reduction in the size of the chickens grown for deboning there is a decreased supply of deboned breast being provided to the market. As a result, prices have soared from \$1 per pound to \$1.60 per pound this year and could go higher.

**Deboned Breast - 2016-17
USDA - Northeast Price - Cents/lb**



The US Chicken industry is highly profitable for the moment and is likely to remain unusually profitable due to low grain prices and rising chicken prices.

June 2017

Leg Quarters	\$ 0.39 per pound
Deboned Breast	\$ 1.68 per pound
Wings	\$ 2.06
Chicago Corn	\$ 3.78 per bushel
Soybean Meal	\$ 302/Ton
Total Cost of Eviscerated Chicken	\$ 0.67
Revenue	\$ 0.89
Gain (Loss) per pound	\$ 0.22

September 2017

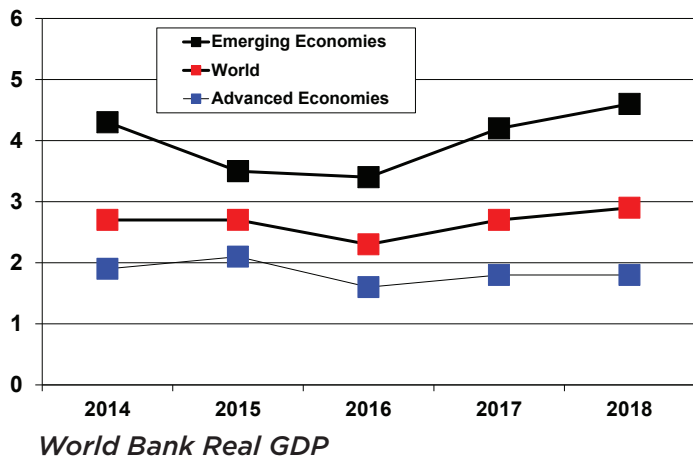
Leg Quarters	\$ 0.39 per pound
Deboned Breast	\$1.60 per pound
Wings	\$ 2.15
Chicago Corn	\$ 4.00 per bushel
Soybean Meal	\$ 300/Ton
Total Cost of Eviscerated Chicken	\$ 0.68
Revenue	\$ 0.88
Gain (Loss) per pound	\$ 0.20

World Chicken Growth Rate

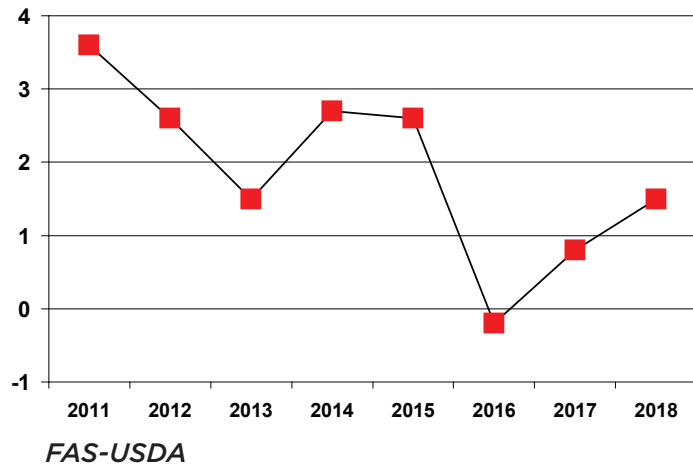
The consequences of slower world economic growth in the last few years combined with a rapid drop in production in China dropped the world chicken growth rate to a highly unusual negative 0.2% last year. Production in China dropped 8% in 2016 and will drop 11% in 2017 due to their struggles with avian influenza and lack of breeders.

Chicken production is likely to turn around this year and begin to grow faster than 1% per year starting in 2018. The growth rate of the world economy is accelerating and China will eventually solve their production difficulties.

Economic Growth Rate



World Chicken Growth Rate



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.



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