

# BROILER ECONOMICS

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## UPS AND DOWNS IN THE GRAIN MARKET

Following the publication of the USDA Grain Stocks report on June 30th, corn and soybean prices spiked upward. The report showed that corn and soybeans were being depleted faster than had been expected. In addition, there were supply concerns due to excessive rain in the eastern Corn Belt.

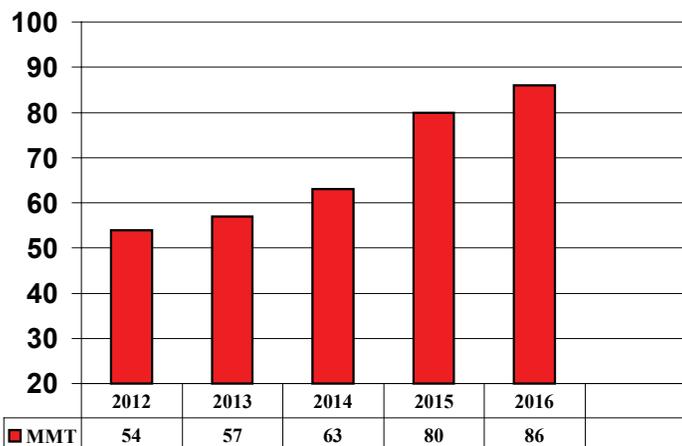
The August WASDE report estimates showed the supply/demand balance to not be as worrisome as was indicated in July. As a result, the market retraced about 50% of the earlier rise. Prices are not likely to return to June lows but are also less likely to return to July highs.

While the market is now lower than last month due to the news on supply/demand balance, the supply for this year is still unknown and could exert an even greater effect on prices either up or down as the season progresses. For the moment, the supply news is favorable for grain users.

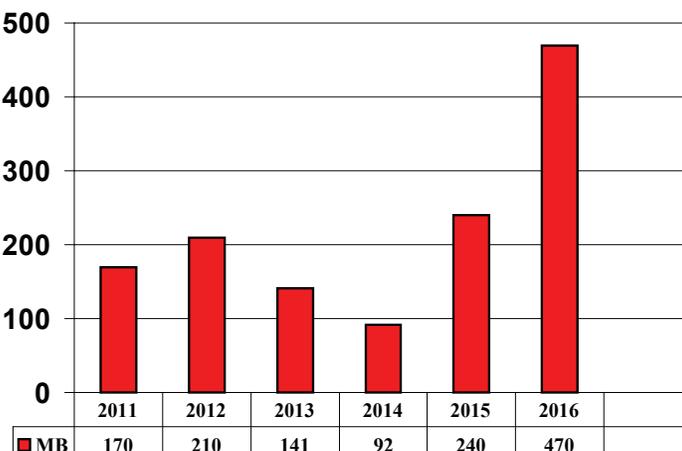
### Soybeans

The ending stock of soybeans, both in the US and worldwide, continues to rise. By 2016, world ending stocks are expected to rise to 86 million metric tons, up from just 57 MT in 2013. US ending stocks are projected to be significantly higher each year from 2014 to 2016. Higher ending stocks should ensure that soybean prices continue to fall.

World Ending Stock of Soybeans in Millions of Metric Tons (MMT)



World Ending Stock of Soybeans in Millions of Bushels

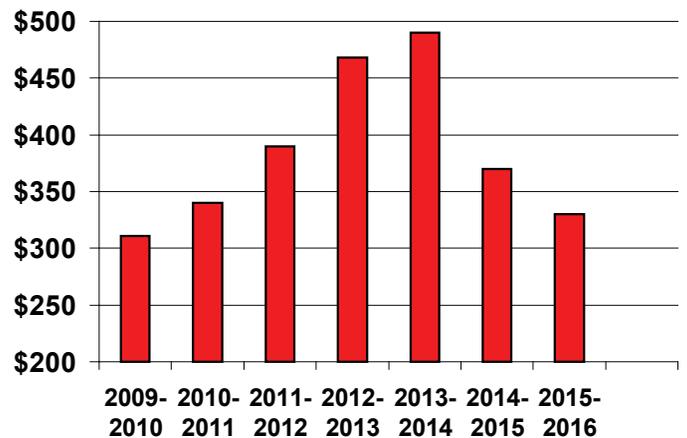


### US Soybeans – USDA August – Billions of Bushels

	2013-14	2014-15	2015-16
Harvest	3,358	3,969	3,916
Export	1,647	1,825	1,725
Total Use	3,478	3,851	3,717
Ending Inventory	92	240	470
Meal Price short ton	\$490	\$370	\$330

The direction arrow for soybean meal prices is still down. The average price of soybean meal this crop year was \$120 lower than the record \$490 average of last crop year and the average price next crop year is predicted to be \$40 lower than this year. The USDA predicts \$370 per short ton for this crop year (\$407 per metric ton) and \$330 per short ton (\$370 per metric ton) for next crop year (crop years run from September 1 to August 31).

Average Crop Year Price of Soybean Meal - Short Ton



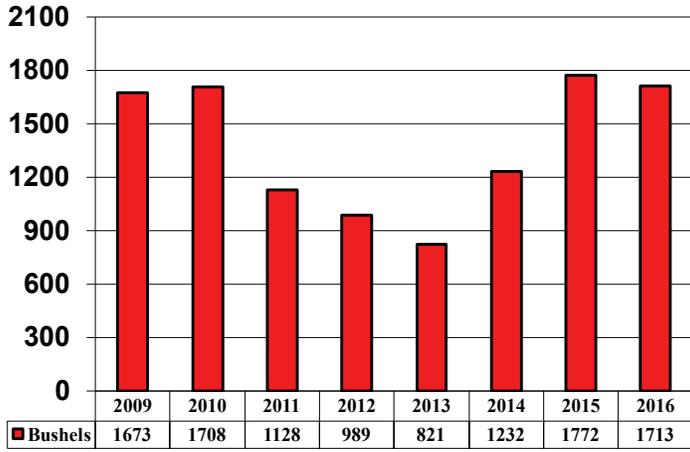
### Corn

Unfortunately, the direction arrow for corn prices shifted from downward to flat and will eventually turn upward. Corn production in the US will drop next crop year due to lower acreage and yield. However, ending stock will fall only slightly thanks in part to the more generous beginning inventory. With ending stock now expected to be similar at the end of the next crop year as it is at the end of this crop year, it is logical that prices are expected to also be similar in the two crop years.

### Corn – USDA August- Billions of Bushels

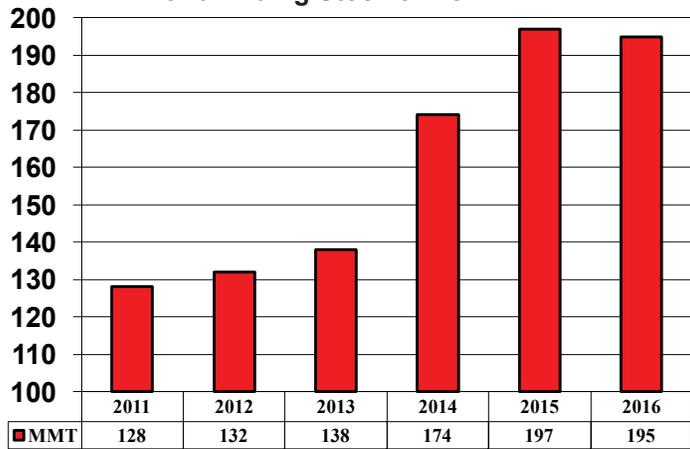
	2013-14	2014-15	2015-16
Beginning Inventory	0.821	1.232	1.772
Harvest	13.829	14.216	13.686
Imports	0.036	0.025	0.025
Supply Total	14.686	15.477	15.488
Ethanol	5.134	5.200	5.250
Exports	1.917	1.850	1.850
Feed	5.036	5.300	5.300
Total Use	13.454	13.705	13.775
End Inventory	1.232	1.772	1.713
Farm Price	\$4.46	\$3.70	\$3.65

### US Ending Stock of Corn Millions of Bushels USDA



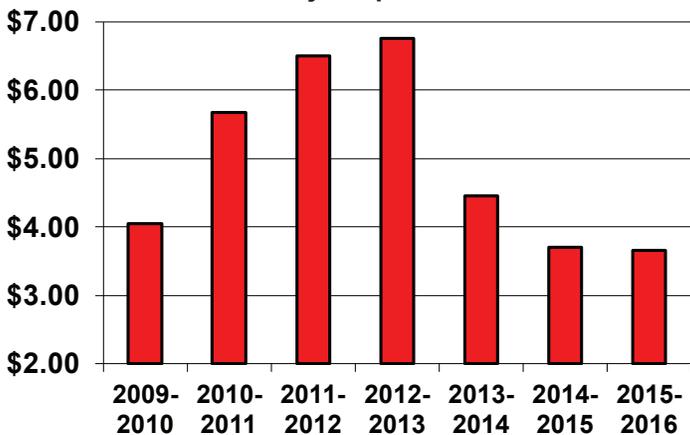
The August WASDE report estimates world ending stock to be 195 million tons in 2016, down only 2 million tons from 2015. World production estimates were reduced for China, the EU, and mostly offset by increases for Brazil, the Ukraine, and Russia.

### World Ending Stock of Corn - MMT



The USDA estimates the average price of corn next crop year to be nearly the same as this year. The bear market in corn may now be completed for this cycle. The price in the last two years is below the cost of production in many corn producing areas including, most notably, the United States. Production is therefore likely to drift downward until prices rise.

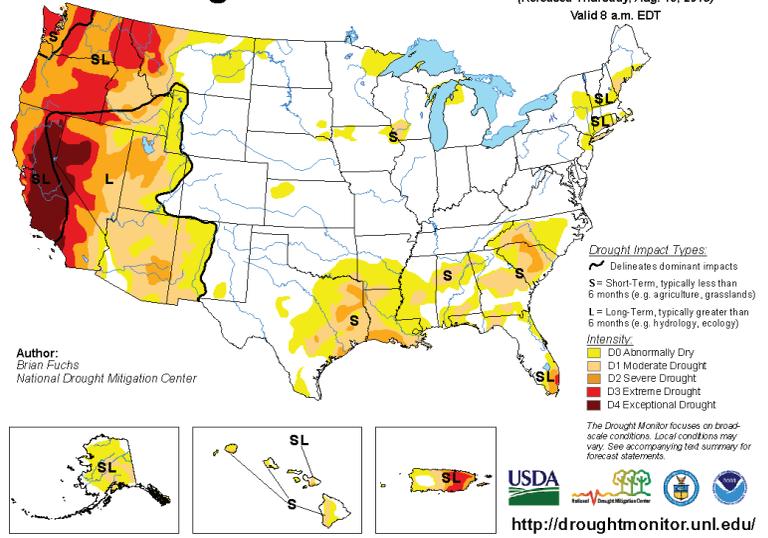
### Average Farm Price of Corn \$/Bushel by Crop Year - USDA



Drought does not appear to be a problem this year. Every year there is an approximately 15% possibility of a drought in the Corn Belt of the US. Currently, there is little sign of drought anywhere in the Corn Belt. California continues to suffer a drought of historic proportions.

### U.S. Drought Monitor

August 11, 2015  
(Released Thursday, Aug. 13, 2015)  
Valid 8 a.m. EDT



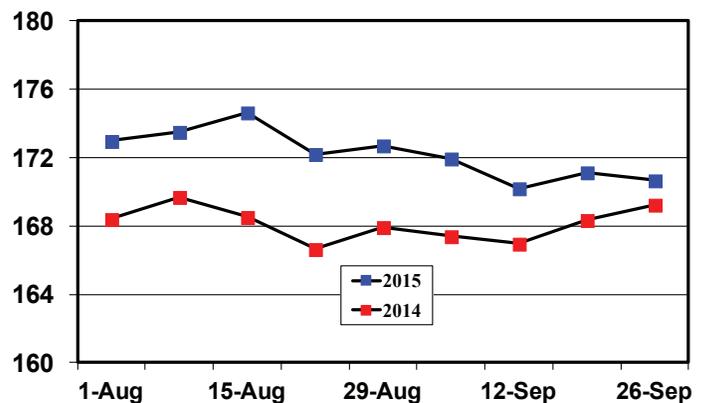
### US Chicken Industry Production

Bird flu faded away in June without ever affecting the broiler industry. It will be back in the fall but it may continue to spare the chicken meat industry. It appears that this bird flu does not significantly affect birds that are seven weeks old and younger. That would seem to be the most logical explanation why broilers were spared earlier this year and may continue to be spared this fall.

The broiler industry is not spared the consequences of bird flu in the international market. Reduced exports to countries that ban imports from the US continue to put considerable pressure on leg quarter prices which are far below the levels of last year and likely to remain low for the rest of the year at least.

Total chicken production continues to increase but at a slower pace. The following graph shows the weekly chick placement in millions moved forward 7 weeks to estimate chickens processed. Using this method of estimation, processing is currently running 3.5% higher in numbers compared to last year but will slow to 1.0% in late September.

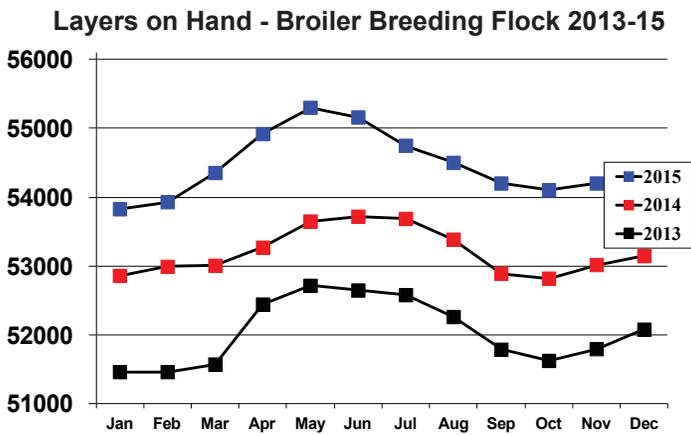
### Weekly Chick Placement - Millions 7 Weeks Forward - 2015 versus 2014



Weights are higher this year. The shift in production to heavier birds for deboning increased the average weight of all chickens. Chickens were 2% higher in total weight in the first half of the year. In the summer heat of July and August, the total weight increase was temporarily reduced to zero. However, weight increases compared with year earlier numbers will resume in September.

Taking into consideration numbers and weight, total chicken production is running 3.5% higher this year in August and will fall to 3% in September as weights increase more but total numbers increase less. For the period January through June, production was higher by 4%. The production increase for the entire year is likely to be less than 4%.

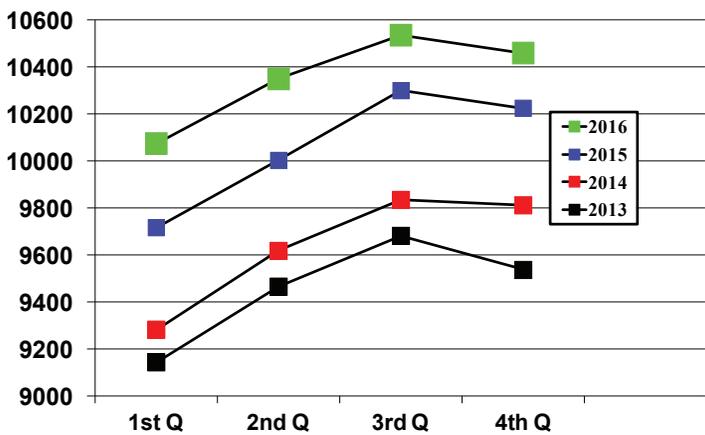
As can be seen on graph below, the supply of broiler breeders grew significantly from 2013 to 2015. While there were insufficient breeders last year to support the growth the industry wanted, there are now more than enough breeders to support all the domestic growth the market can handle including demand from Mexico for hatching eggs. The latest numbers available, those of July, show a continued increase in the flock. Breeders are now 3% greater in numbers than at the same time last year.



The August WASDE report predicts an increase of 4.5% in chicken production this year compared to 2% last year. More importantly, given falling exports, the amount available within the US is pegged by the USDA to be 7% higher this year. The current quarter, July to September, shows the greatest increase from year earlier numbers. That prediction appears high given the recent decline in chicks placed.

For calendar year 2016, production increases are likely to be reduced because of the combination of the processing wall, the weight wall, and lower profitability. The processing wall is the capacity limitation of current US processing facilities. The weight wall is the limit of what weight the processing equipment can withstand and what the market desires. Lower profitability will also limit the willingness of the industry to expand. The combination of these factors could limit production increases in 2016 to approximately half that of 2015.

**US Quarterly Broiler Production  
Million Pounds USDA**



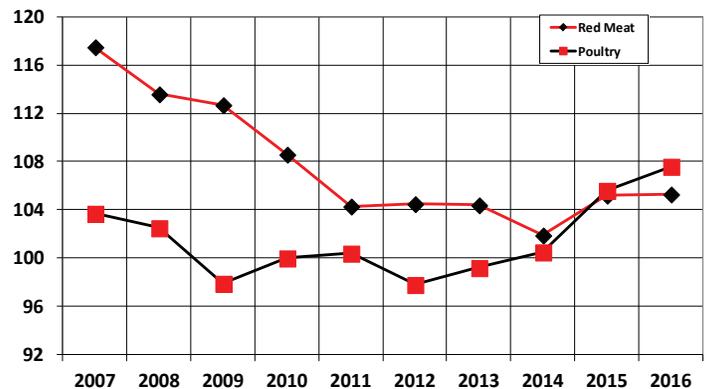
A large increase in chicken production next year is also unlikely considering the significant increase in red meat availability, in particular, pork. There will be 1.6 billion additional pounds of pork available for domestic use this year. Total red meat consumption per capita is now expected to rise 3.5 pounds this year after a fall of two pounds last year. Next year, total use of red meat is expected to remain about the same with a small increase in beef and a small decrease in pork. The per capita consumption of poultry is expected to rise five pounds this year and just two additional pounds next year.

After a huge jump from 2014 to 2015 of 8 pounds per capita of total meat consumption, there is expected to be only a 3 pound increase in 2016. It is interesting to note that total meat consumption in 2016 is still not back to the level of 2006. Total poultry consumption will exceed total red meat consumption in 2015 for the first time.

**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	88	16	210
2016	49	55	90	16	213

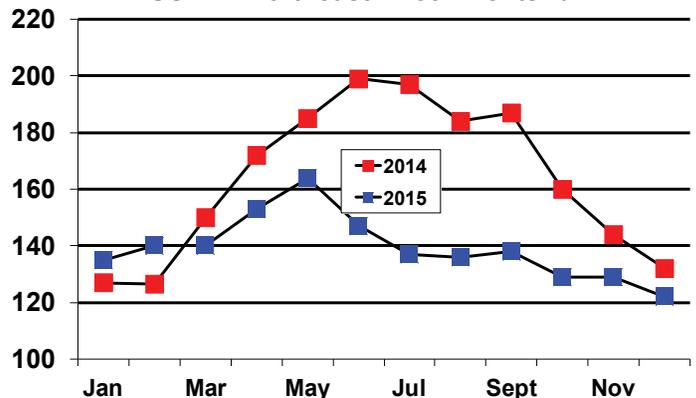
**US Per Capita Consumption Per Capita in US Pounds**



Deboned Breast

The effect of heat on chicken production is holding deboned breast meat prices steady in August. However, when the weather cools, prices are likely to drop seasonally. The high price for the year, \$1.64, almost certainly occurred in May. The price of deboned breast could sink to \$1.20 by the end of the year.

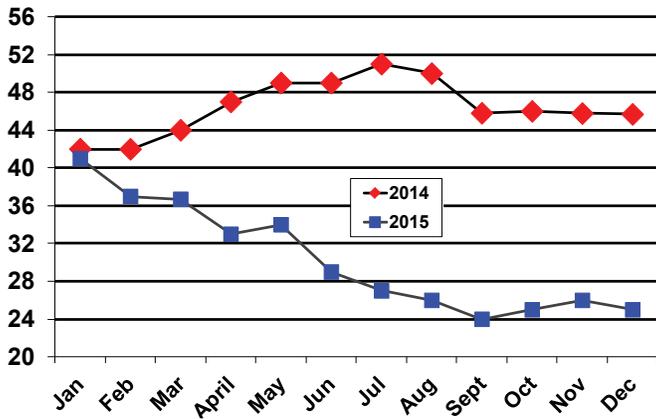
**Deboned Breast - 2014-2015  
USDA - Northeast Price - Cents/lb**



Leg Quarters

Leg quarters are feeling the effects of increased production, trade restrictions, and the strong dollar. Given current conditions, leg quarter prices could stay below 25 cents per pound (Northeast Price) for the rest of the year depending on what happens with Avian Flu and trade. There is, of course, a wide range in price for leg quarters right now with many leg quarters being sold for a price far lower than the published Northeast price.

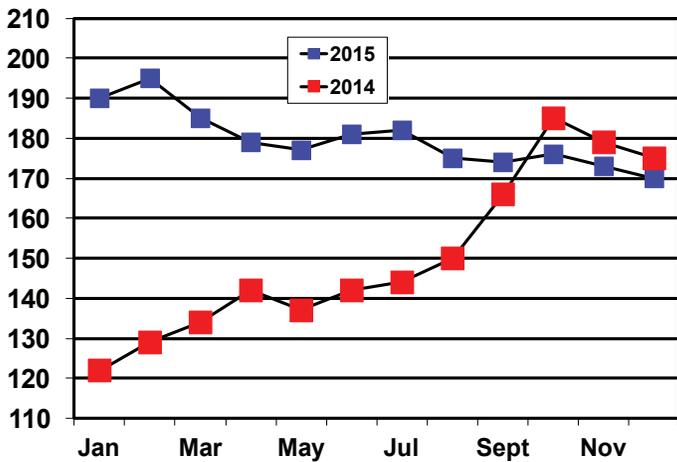
**Leg Quarter Price - 2014-2015**  
Cents/lb - USDA Northeast Price



Wings

Wings are a bright spot for the chicken industry with prices above deboned breast at \$1.74. Increased production and lower deboned breast prices will eventually moderate wing prices despite phenomenal demand. Wings can be expected to end the year at approximately \$1.70.

**Whole Wing Prices - 2014-2015**  
Cents/lb - USDA Northeast Price



The US industry is currently profitable thanks to moderating grain prices. Looking forward to the end of the year, seasonally lower chicken prices are likely to turn the industry unprofitable.

**August 2015**

Leg Quarters	\$ 0.25 per pound
Deboned Breast	\$ 1.40 per pound
Wings	\$ 1.79
Chicago Corn	\$ 3.60 per bushel
Soybean Meal	\$ 330/Ton
Total Cost of Eviscerated Chicken	\$ 0.71
Revenue	\$ 0.73
Gain (Loss) per pound	\$ 0.02

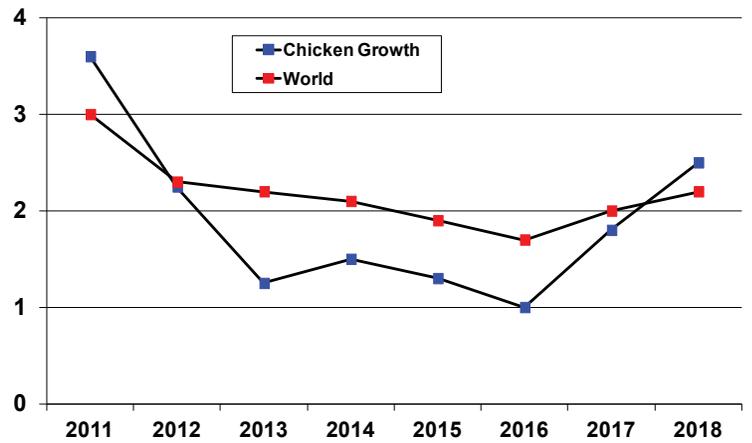
**December 2015**

Leg Quarters	\$ 0.24 per pound
Deboned Breast	\$ 1.20 per pound
Wings	\$ 1.70
Chicago Corn	\$ 3.65 per bushel
Soybean Meal	\$ 325/Ton
Total Cost of Eviscerated Chicken	\$ 0.71
Revenue	\$ 0.68
Gain (Loss) per pound	\$ (0.03)

**World Chicken Growth Rate**

The world economy continues to weaken with recovery postponed until perhaps 2017. The slowing growth rate of the world economy in the last few years dropped the world chicken growth rate to an unusually low level in the last few years. World economic growth is likely to remain disappointingly slow in 2016 and perhaps even in 2017. However, chicken production will rebound no later than 2017 according to my crystal ball. Both the world economy and chicken production should be accelerating in 2017 and 2018.

**World Chicken Growth Rate & World Economic 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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