

# BROILER ECONOMICS

By Dr. Paul Aho

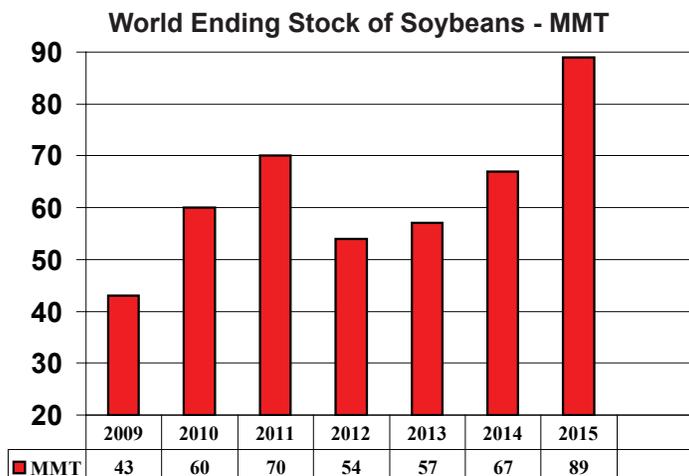
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## GRAIN SUPPLIES STILL ABUNDANT

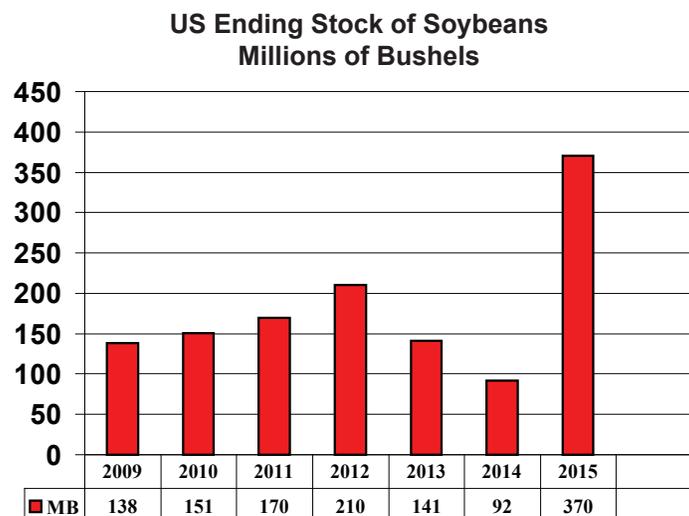
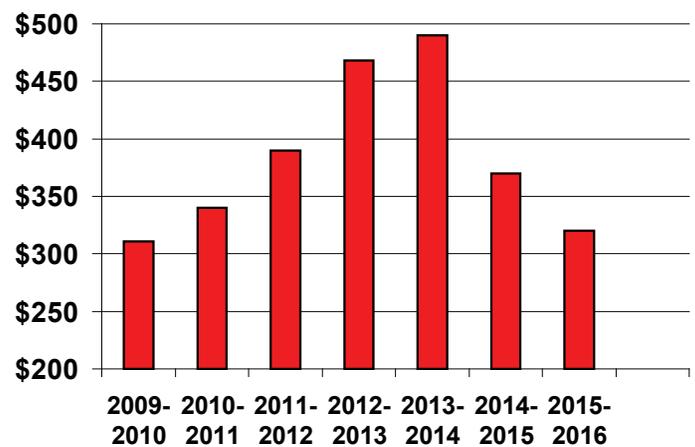
The supply of grains and oilseeds vital to the poultry industry are currently abundant and prices continue to fall. Barring a drought, low prices are likely to last at least for a considerable amount of time.

The April USDA report had no surprises for soybeans. As in earlier reports, the world ending stock of soybeans is expected to be an ample 89 million metric tons (MMT) this year, up from 56 MMT in 2013. High ending stocks should ensure a period of lower soybean prices. US ending stocks are also much higher than last crop year and the April report showed only a slight decline in expected ending stock from the March estimate.

The average price of soybean meal this crop year will fall significantly from the record \$490 average of last crop year. The USDA predicts \$370 per short ton for this crop year (\$407 per metric ton), the same as the prediction last month. That appears to be a reasonable estimate for the average since prices were so much higher at the beginning of the crop year. However, with another good harvest, the average will continue to drop to perhaps as low as \$325 per short ton (\$357 per metric ton) next crop year.



**Average Crop Year Price of Soybean Meal Short Ton**



### Corn

There was little change in expected corn production, use, and ending inventory in the April USDA report. Ending stock is now pegged at 1.827 billion bushels, up slightly from last month. Ending stocks are a billion bushels higher than in 2013 and prices have fallen by nearly 50%.

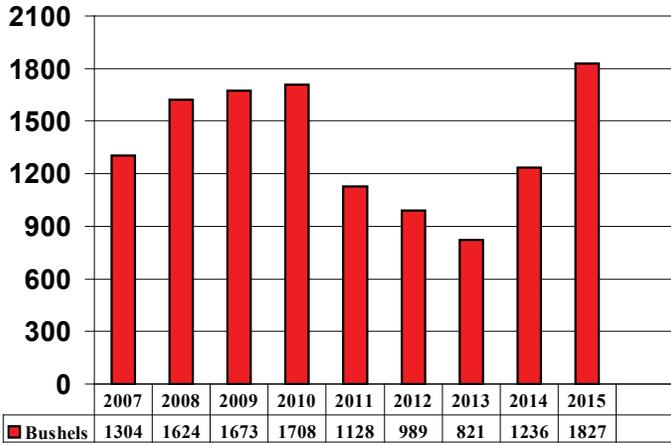
**Corn – USDA April- Billions of Bushels**

	2012-13	2013-14	2014-15
Beginning Inventory	0.989	0.821	1.232
Harvest	10.780	13.829	14.216
Imports	0.162	0.036	0.025
Supply Total	11.932	14.686	15.472
Ethanol	4.648	5.134	5.200
Exports	0.731	1.917	1.800
Feed	4.329	5.036	5.250
Total Use	11.111	13.454	13.645
End Inventory	0.821	1.232	1.827
Farm Price	\$6.89	\$4.46	\$3.70

**US Soybeans – USDA April – Billions of Bushels**

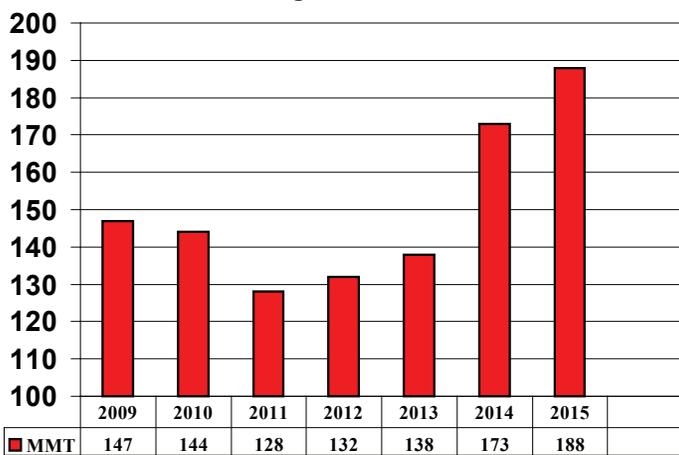
	2012-13	2013-14	2014-15
Harvest	3.034	3.358	3.969
Export	1.320	1.647	1.790
Total Use	3.099	3.478	3,721
Ending Inventory	141	92	370
Meal Price short ton	\$468	\$490	\$370

**US Ending Stock of Corn  
Millions of Bushels - USDA**



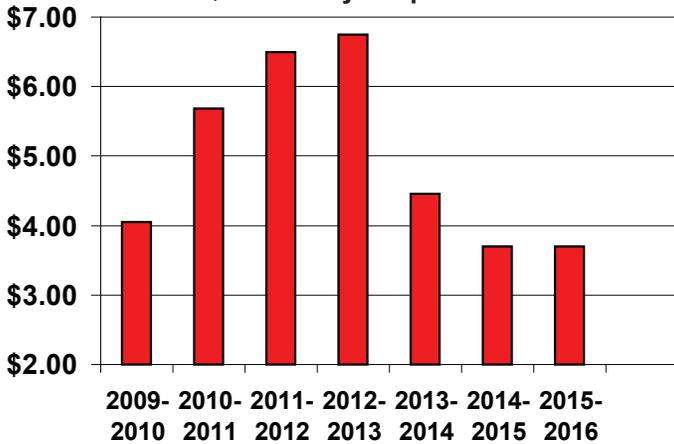
The April WASDE report raised world ending stock significantly to 188 million tons due to better than expected crops in Serbia, Mexico, and Argentina. Stocks will be much higher than in 2013 when they only reached 138 MT.

**World Ending Stock of Corn - MMT**



The USDA kept the projected average price of corn the same at \$3.70 per bushel in the April report. Unlike soybeans, corn is not likely to continue falling this crop year. Some acres are likely to shift from corn to soybeans this year and some will shift from corn to sorghum. The 2015 harvest of corn, even with a good crop, is therefore likely to be lower. World supply may shrink as well given relatively low corn prices in the last two years. Therefore, it now appears that the average price in crop year 2015-2016 will be similar to the average price in crop year 2014-2015.

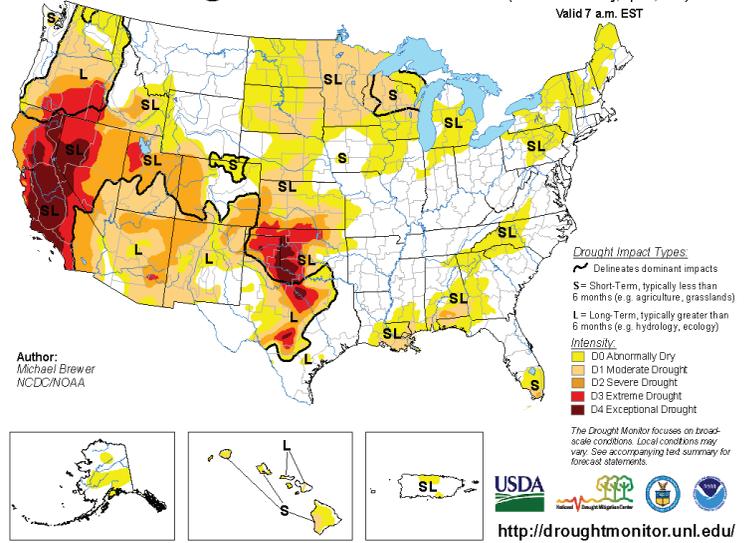
**Average Farm Price of Corn  
\$/Bushel by Crop Year**



Every year has approximately a 15% possibility of a drought in the Corn Belt of the US. Currently, the northern portion of the Corn Belt in Minnesota, Wisconsin, and the Dakotas shows the potential for drought development later in the year. Time will tell if a drought indeed develops. California continues to suffer a drought of historic proportions.

**U.S. Drought Monitor**

April 7, 2015  
(Released Thursday, Apr. 9, 2015)  
Valid 7 a.m. EST



**US Chicken Industry Production**

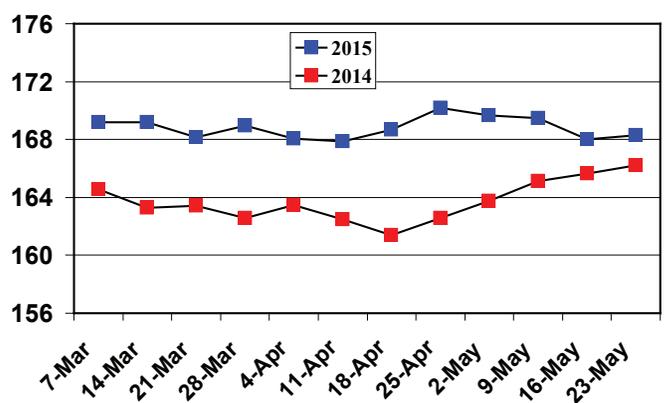
Bird flu continues to spread but only in turkey flocks. However, one of the turkey flocks was in Arkansas, the state with the highest number of broiler chickens. Because of the outbreak, the export of chicken leg quarters has been reduced and leg quarter prices are far below the levels of last year.

Total chicken production is increasing in the US. 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 running an average of 4% higher in numbers compared to last year in April although this number will moderate somewhat in May. Lack of breeders or breeder performance is evidently no longer a problem in the industry.

In addition, weights are higher this year due in part to lower grain costs. The additional cost of higher weight is much less than last year. In addition, the shift in production to heavier birds for deboning increases the average weight of all chickens. Chickens are about 2% higher in total weight this year.

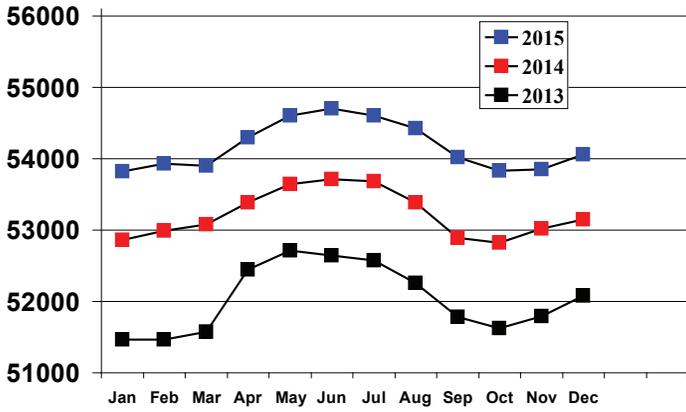
With greater numbers and higher weight, total chicken production is running 6% higher than in April 2014 diminishing to a projected 5% in May. That is a relatively high rate of increase in production.

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



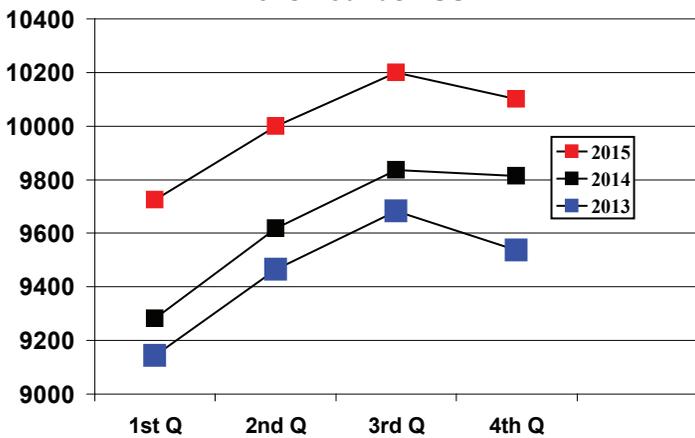
As can be seen on the next graph, the supply of broiler breeders grew significantly from 2013 to 2015. While there were insufficient breeders last year to support the growth the industry wanted, there are now enough breeders to support all the growth the market can handle including demand from Mexico for hatching eggs.

**Layers on Hand - Broiler Breeding Flock 2013-15**



The recent increase in production combined with falling exports increases the amount of chicken available within the US (+7% this year). Even that number could be conservative if production increases faster than expected and imports fall more than expected.

**US Quarterly Broiler Production Millions Pounds - USDA**



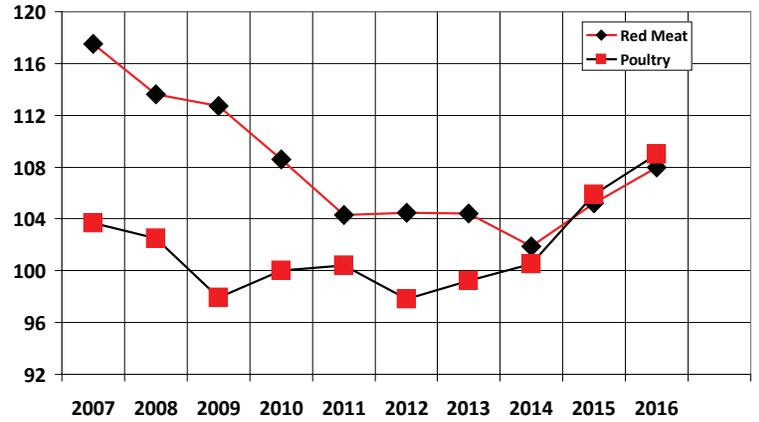
A 7% rate of expansion in domestic supply is obviously unsustainable. The speed limit for the US industry is approximately 2% per year except in those rare cases, like 2015, when the stars align to allow for a temporarily higher increase. Should the current high rate of increase spill over into 2016, the US chicken industry would begin to suffer from oversupply and accelerating losses.

It was once expected that the chicken industry would receive a boost this year from a lower availability of beef and pork. However, the April estimates now show a significant increase in red meat availability this year rather than the earlier expected decrease. In particular, the pork industry is increasing production rapidly as their disease problems fade. There will be 1.6 billion additional pounds of pork available for domestic use this year. Total red meat consumption is therefore now expected to rise three pounds this year after a fall of two pounds last year.

By 2016, the supply of all meats will be plentiful and might exceed the amount the market can absorb profitably. As can be seen on the next graph, the low point in per capita meat consumption was in 2014 at 202 pounds per person. Production is now rising at a rate of 9 pounds per person per year. Domestic availability of 220 pounds per person is possible in 2016. It will be interesting to see if the market can absorb that quantity of meat at a price profitable to the meat industry.

To go from 202 pounds to 220 pounds in two years requires both a robust increase in personal income and a high income elasticity of demand for meat. In other words, people have to have more money and they have to want to buy more meat with that money. US consumers do have more money but the jury is still out on how much they will want to pay for another 9 pounds per capita next year after 9 additional pounds per capita this year.

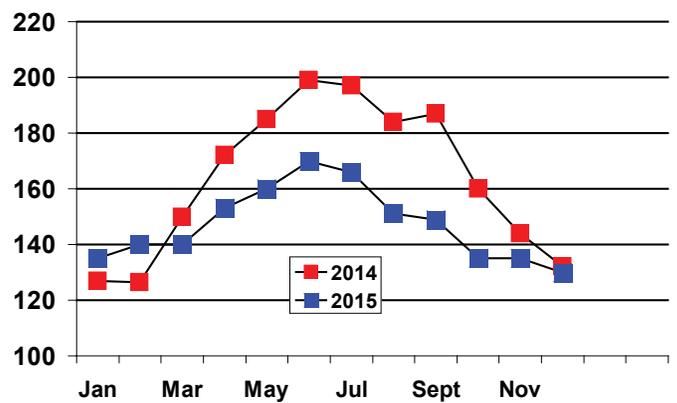
**US Per Capita Consumption of Red Meat and Poultry (lbs)**



Deboned Breast

Deboned breast prices finally began their seasonal increase. However, with increased amounts of total meat available, the seasonal high for deboned breast may be only \$1.70 this year compared to \$2.00 last year. Even that price should be very profitable given low grain prices. At the end of this year the price could sink to \$1.30.

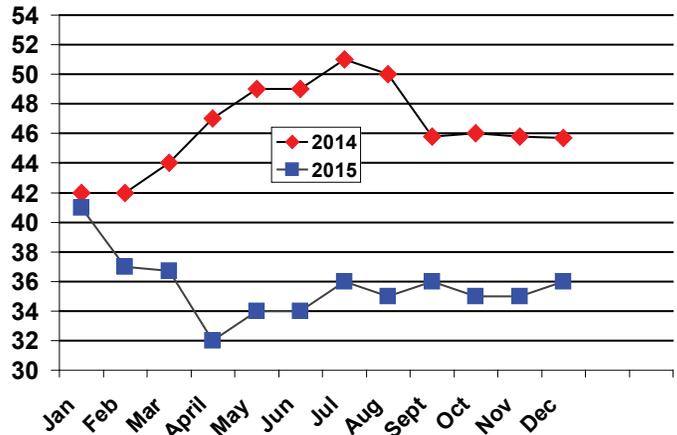
**Deboned Breast - 2014-2015 USDA - Northeast Price - Cents/lb**



Leg Quarters

Leg quarters are feeling the effects of a perfect storm. The strong dollar, increased chicken production, weakness in overseas markets, and now an outbreak of Avian Flu in turkeys all combine to make this a difficult year. Expect total exports and prices to be lower this year. It would appear to be difficult for leg quarters to even reach 40 cents per pound again the rest of this year depending, of course, on what happens with Avian Flu and trade.

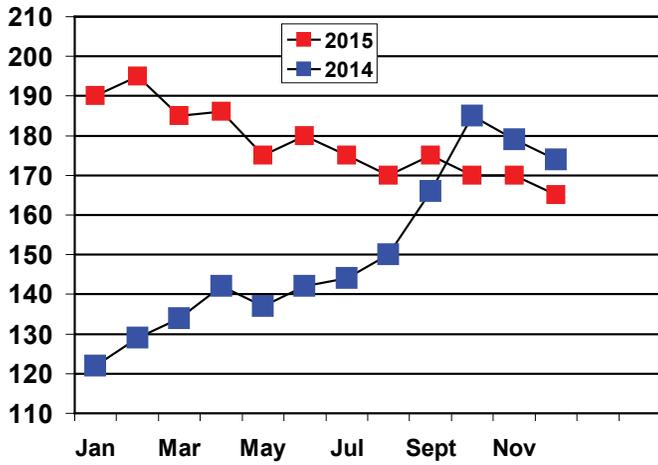
**Leg Quarter Price - 2014-2015 Cents/lb - USDA Northeast Price**



Wings

Wings are a bright spot for the chicken industry with prices high above deboned breast at \$1.86. This year, increased production and lower deboned breast prices will eventually moderate wing prices. Expect wings to end the year at approximately \$1.65.

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



The US industry, using spot prices, is currently profitable despite low leg quarter prices. Looking forward to the summer, seasonally higher chicken prices and relatively low grain prices appear to allow for continued profitability although not as profitable as earlier expected.

**April 2015**

Leg Quarters	\$0.32 per pound
Deboned Breast	\$1.53 per pound
Wings	\$1.86
Chicago Corn	\$3.78 per bushel
Soybean Meal	\$312/Ton

Total Cost of Eviscerated Chicken	\$0.71
Revenue	\$0.77

**Gain (Loss) per pound \$0.06**

**July 2015**

Leg Quarters	\$0.36 per pound
Deboned Breast	\$1.70 per pound
Wings	\$1.70
Chicago Corn	\$3.86 per bushel
Soybean Meal	\$312/Ton

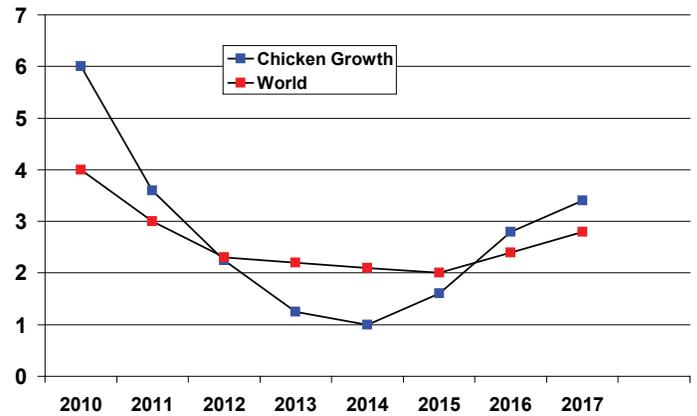
Total Cost of Eviscerated Chicken	\$0.71
Revenue	\$0.80

**Gain (Loss) per pound \$0.09**

**World Chicken Growth Rate**

The slowing growth rate of the world economy in the last few years dropped the world chicken growth rate to just 1% last year. Prospects for world growth do not look good for 2015. Asia and Latin America are slowing and Europe is close to a recession. World growth in 2015 is likely to be similar to 2014, around 2% when using constant US dollars. Nevertheless, chicken production growth is likely to change direction this year despite the mediocre world economy. Given low grain prices, world chicken growth is likely to rebound to 1.6% this year and 2.8% in 2016, surpassing the growth in the world economy just as it did most recently in 2011.

**World Chicken Growth Rate and World Economic Growth Rate**



\*Constant Dollars World Bank to 2013 / USDA to 2013

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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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