

# BROILER ECONOMICS

By Dr. Paul Aho

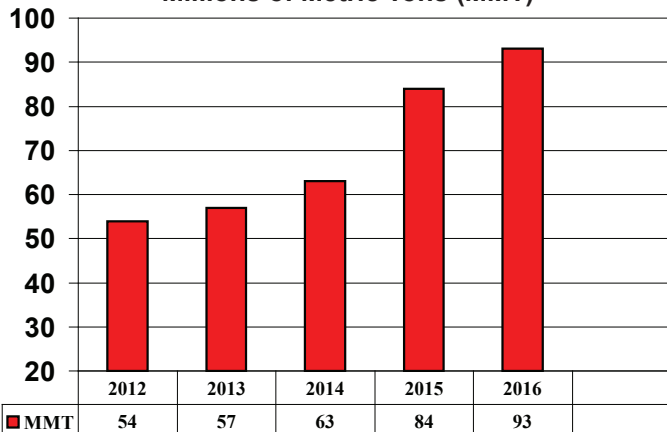
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## BEAR MARKET FOR GRAIN

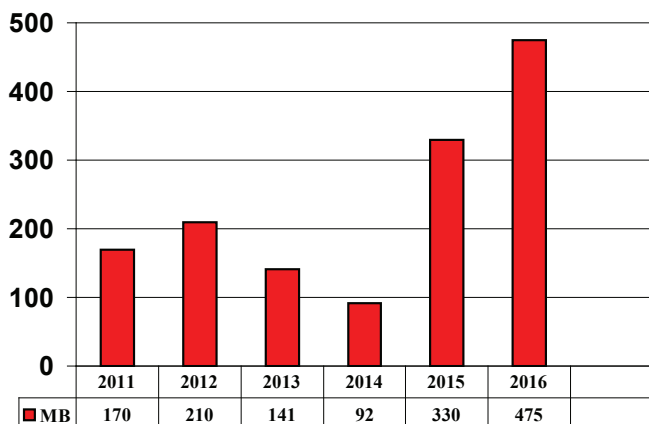
Barring a drought, low grain and oilseed prices are likely to last through next crop year. This is a substantial bear market in grain. Nevertheless, it is important to remember that, while no one can predict the exact end of a down cycle, the downside risks are now diminished while the upside risks will increase over time.

There were no surprises in the June World Agricultural Supply and Demand Estimates (WASDE) report. World ending stock of soybeans both in the US and worldwide is high. By 2016, world ending stocks are expected to rise to 93 million metric tons, up from just 57 MT in 2013. US ending stocks are also expected to be much higher in 2016, 475 million bushels compared to just 92 million bushels in 2014. High ending stocks should ensure a period of lower soybean prices.

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



**US Ending Stock of Soybeans**  
Millions of Bushels

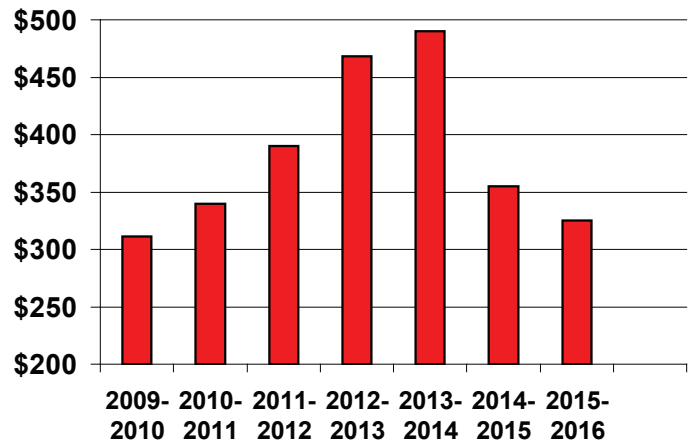


**US Soybeans – USDA June – Billions of Bushels**

	2013-14	2014-15	2015-16
Harvest	3.358	3,969	3,850
Export	1.647	1.810	1,775
Total Use	3.478	3,761	3,734
Ending Inventory	92	330	475
Meal Price short ton	\$490	\$355	\$325

The average price of soybean meal this crop year is much lower than the record \$490 average of last crop year. The USDA predicts \$355 per short ton for this crop year (\$390 per metric ton) and \$325 (\$357 per metric ton) for next crop year.

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



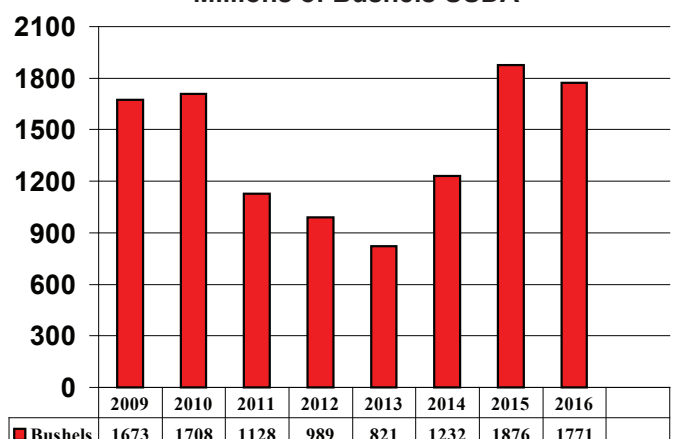
### Corn

Corn production is expected to drop somewhat next crop year due to slightly lower acreage and yield. Nevertheless, corn prices are expected to remain low thanks to ample supply and the slow increase in use. Ending stocks are now pegged at 1.876 billion bushels this year and 1.771 billion bushels next year.

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

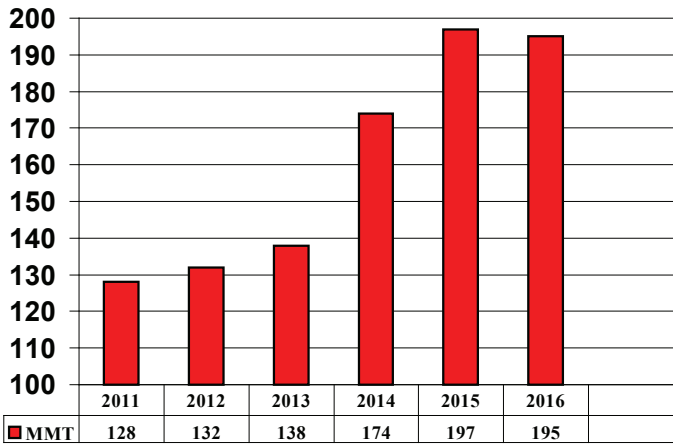
	2013-14	2014-15	2015-16
Beginning Inventory	0.821	1.232	1.876
Harvest	13.829	14.216	13.630
Imports	0.036	0.025	0.025
Supply Total	14.686	15.472	15.531
Ethanol	5.134	5.175	5.200
Exports	1.917	1.825	1.900
Feed	5.036	5.250	5.300
Total Use	13.454	13.597	13.760
End Inventory	1.232	1.876	1.771
Farm Price	\$4.46	\$3.65	\$3.50

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



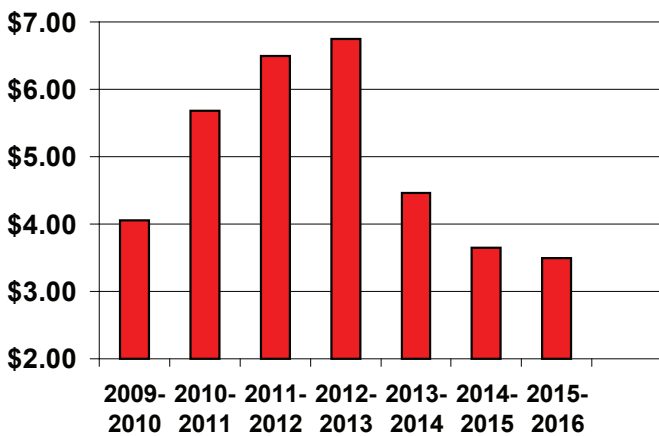
The June WASDE report estimated world ending stock as 195 million tons in 2016, down only slightly from 2015. Production estimates were increased for Russia but reduced for parts of Africa and the EU.

**World Ending Stock of Corn MMT**

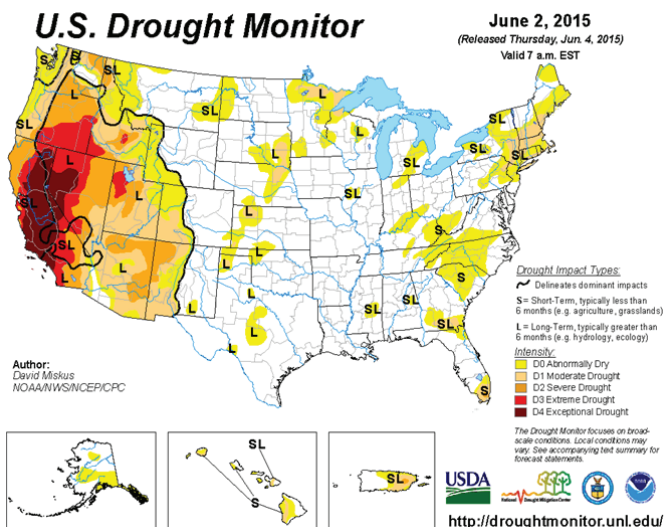


Most of the drop in price has now been completed for this cycle. The USDA estimated the average price of corn next crop year down only slightly from this crop year at \$3.50 per bushel. Some acres shifted from corn to soybeans this year and some shifted from corn to sorghum. The 2015 US harvest of corn, even with a good crop, is therefore likely to be somewhat lower.

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



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. The northern portion of the Corn Belt in Minnesota, Wisconsin and the Dakotas that showed a possible drought last month now has plenty of moisture. California continues to suffer a drought of historic proportions.



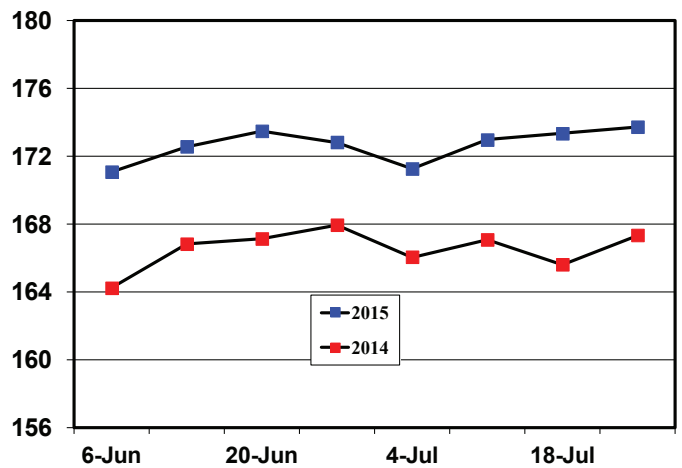
**US Chicken Industry Production**

Bird flu continues to spread with new cases reported daily. So far the infected flocks have all been table egg layer and turkey flocks. Many have wondered why the broiler industry has been largely untouched. The answer may well have to do with the age of broilers. Table egg and turkey flocks are much older than broiler flocks. This bird flu does not seem to affect birds that are seven weeks old and younger.

The biggest effect of the outbreak on the broiler industry has been the export of chicken leg quarters. Reduced exports to countries that ban imports from the US are putting considerable pressure on leg quarter prices which are far below the levels of last year.

Total chicken production is increasing rapidly 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 currently running 4% higher in numbers compared to last year but is likely to decelerate to 2% in August since eggs set are now running lower.

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

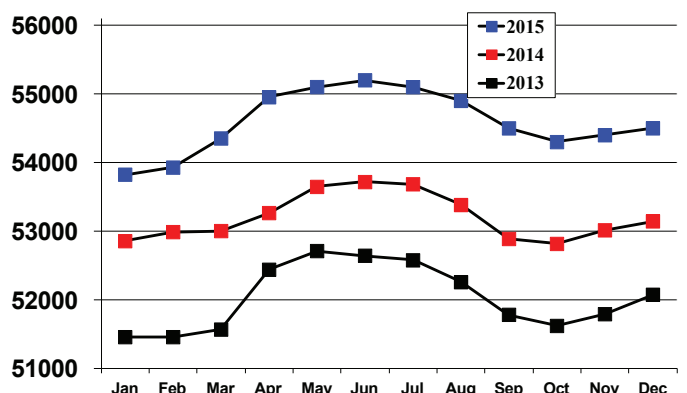


In addition, weights are higher this year due in part to lower grain costs. The shift in production to heavier birds for deboning increases the average weight of all chickens. Chickens are about 2% higher in total weight this year. Part of this is being accomplished by processing larger birds. The category of 7.76 pound chickens and higher is up by 18% over last year.

Taking into consideration greater numbers and higher weight, total chicken production is running 6% higher than year earlier numbers in June. However, by August, production increases are likely to drop to 4%.

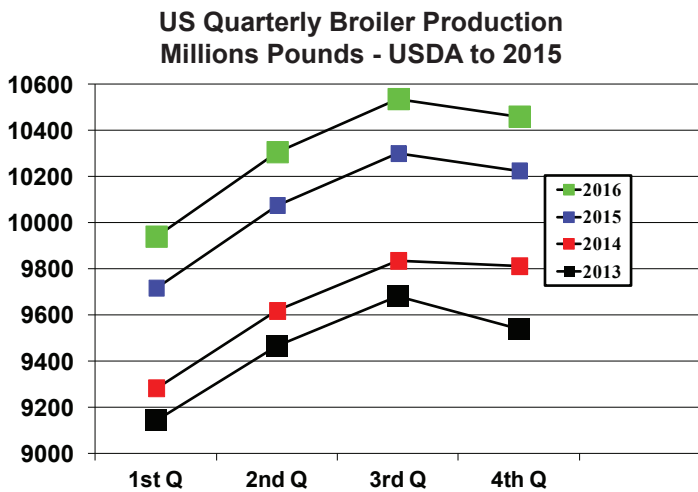
As can be seen on the graph below, the supply of broiler breeders grew significantly from 2013 to 2015. While there were insufficient breeders last year to support the growth the industry wanted, there are now enough breeders to support all the growth the market can handle including demand from Mexico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

**Layers on Hand - Broiler Breeding Flock 2013-2015**



The June WASDE report predicts an increase of 4.6% 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 7.2% higher this year. That is a worrisome number.

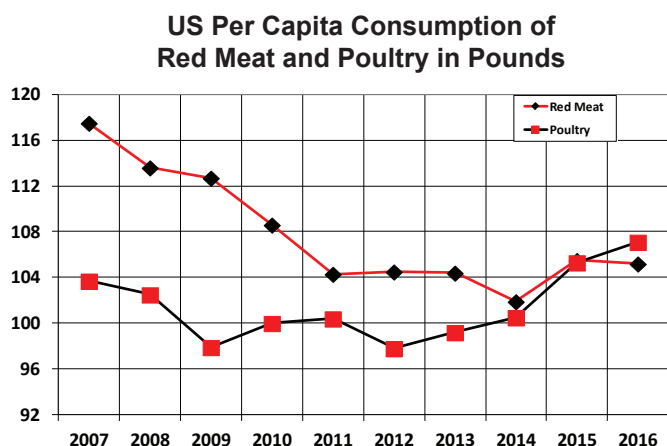
For calendar year 2016, production increases will be reduced because of the combination of the processing wall and the weight wall. The processing wall is the capacity limitation of current US processing facilities. The weight wall is the limit of what weight the processing equipment can withstand and what the market desires. The combination of the processing and weight walls could limit production increases in 2016 to half that of 2015 (2.3% compared to 4.6%).



The rapid expansion of chicken production this year will not immediately jeopardize profitability. The continued drop in soybean meal prices combined with low corn prices makes chicken currently profitable despite soaring production. However, a 7% rate of expansion in domestic supply is unsustainable. The speed limit for the US industry is lower except in those rare cases, like 2015, when lower grain prices, an improving economy, and the high price of beef allow for a temporarily higher increase. The processing and weight wall may come just in time next year to save the domestic industry.

A large increase in chicken production next year would be difficult when considering the significant recent increase in red meat availability. In particular, the pork industry increased production rapidly as their disease problems faded. There will be 1.6 billion additional pounds of pork available for domestic use this year. Total red meat consumption is now expected to rise nearly 4 pounds this year after a fall of 2 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 5 pounds this year and just 1 additional pound next year.

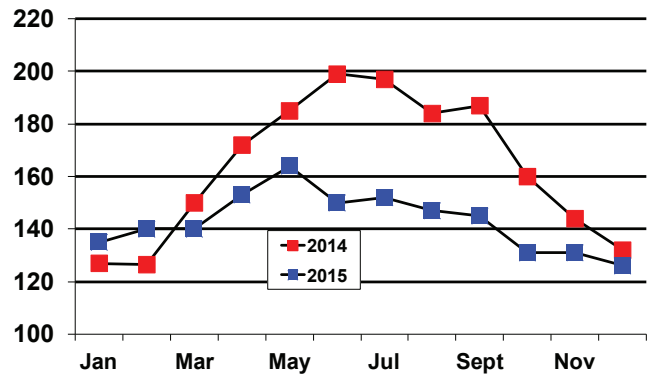
After a huge jump from 2014 to 2015 of 8.5 pounds per capita of total meat consumption, there is expected to be only a 1.5 pound increase in 2016. It is interesting to note that total poultry consumption is expected to exceed total red meat consumption in 2016 for the first time.



### Deboned Breast

Deboned breast prices fell recently going against the normal seasonal trend. It now appears that the high price for the year, \$1.64, occurred in May. Because of increased availability of all meat and especially deboned breast, the price for deboned breast began a long seasonal decline. Even so, the industry will be profitable all of this year given low grain prices.

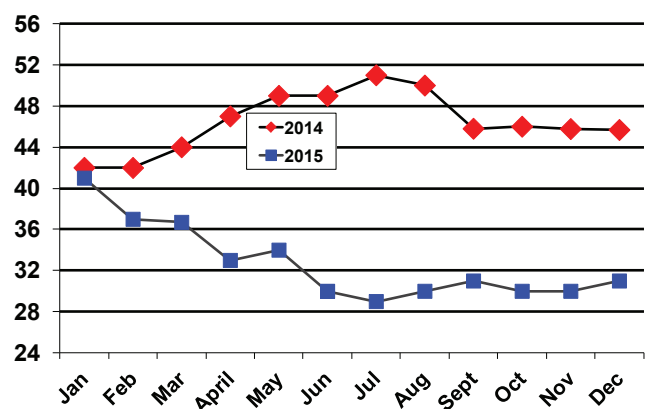
Deboned Breast - 2014-2015  
USDA - Northeast Price - Cents/Pound



### Leg Quarters

Leg quarters are feeling the effects of a perfect storm. The strong dollar, increased chicken production, weakness in overseas markets, and the outbreak of Avian Flu in turkeys and egg laying flocks which disrupts trade all combine to make this a difficult year. Total exports and prices are expected to be lower this year. Given current conditions, leg quarter prices should stay around 30 cents per pound for the rest of the year depending, of course, on what happens with Avian Flu and trade.

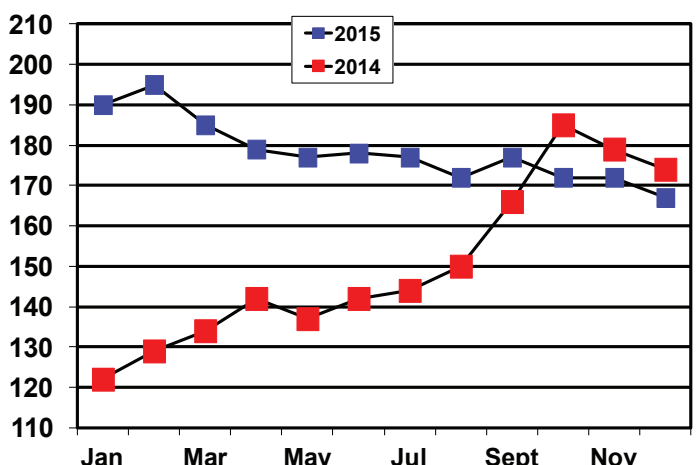
Leg Quarter Price - 2014-2015  
USDA Northeast Price - Cents/Pound



### Wings

Wings are a bright spot for the chicken industry with prices above deboned breast at \$1.78. This year, increased production and lower deboned breast prices will eventually moderate wing prices. Wings can be expected to end the year at approximately \$1.65.

Whole Wing Prices - 2014-2015  
USDA Northeast Price - Cents/Pound



The US industry, using spot prices, is currently profitable despite low leg quarter prices. However, looking forward to the end of the year, seasonally lower chicken prices may reduce profitability considerably by the end of the year.

**June 2015**

Leg Quarters	\$0.30 per pound
Deboned Breast	\$1.50 per pound
Wings	\$ 1.78
Chicago Corn	\$3.58 per bushel
Soybean Meal	\$316/Ton
Total Cost of Eviscerated Chicken	\$0.70
Revenue	\$0.74
Gain (Loss) per pound	\$0.04

**December 2015**

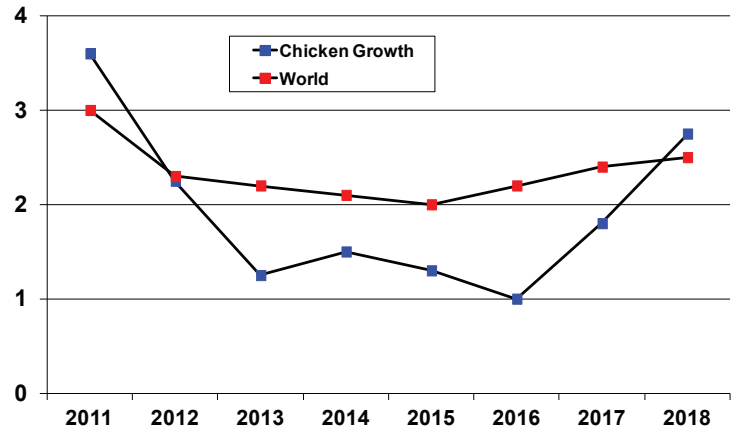
Leg Quarters	\$0.30 per pound
Deboned Breast	\$1.25 per pound
Wings	\$1.65
Chicago Corn	\$3.25 per bushel
Soybean Meal	\$300/Ton
Total Cost of Eviscerated Chicken	\$0.69
Revenue	\$0.69
Gain (Loss) per pound	\$0.00

**World Chicken Growth Rate**

The slowing growth rate of the world economy in the last few years dropped the world chicken growth rate to less than 2% for 2013, 2014, and 2015. World economic growth is likely to remain disappointingly slow in 2016 and 2017. In constant dollars, world growth is likely to remain just above 2%.

World chicken growth in 2016 is likely to be even lower than in 2015 in part due to disruptions in the supply of grandparent stock (GP's). The movement of GP's around the world has been somewhat disrupted by trade restrictions associated with bird flu. Although the breeder supply industry is adept at workarounds, some reduction in breeder supply appears to be inevitable. With breeder supply constrained in 2016, world chicken growth may be just 1% next year. However, by 2018, chicken growth should rebound to nearly 3%.

**World Chicken Growth Rate and 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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