Aviagen®

Broiler Economics

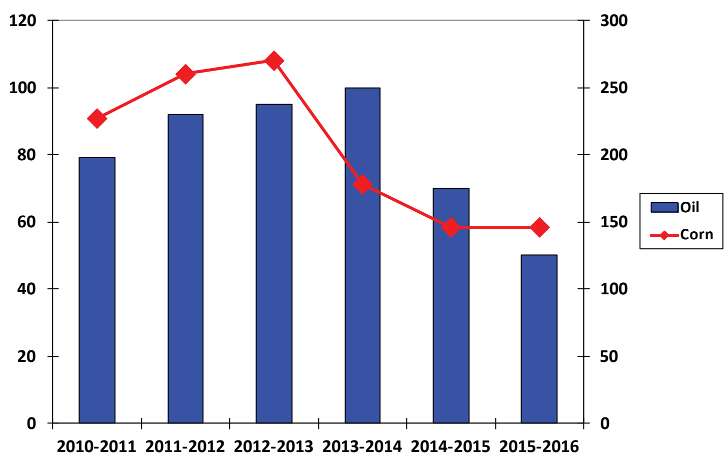
By Dr. Paul Aho

Vol. 23, Issue 1
February 2015

GRAIN PRICES LOW AND STABLE FOR THE MOMENT

In a similar fashion to the price of oil, it took a few years of rising world production to knock grain prices from unusually high levels and bring them down to earth. It has finally happened, both corn and soybean meal (and crude oil as well) are down from the clouds and appear to be stable at much lower levels, at least for this year. Barring an important drought this year in the US, grain prices should remain low through the entire year, and barring political problems, crude oil should remain low as well.

Crude Oil and Corn
$/Barrel $/Ton

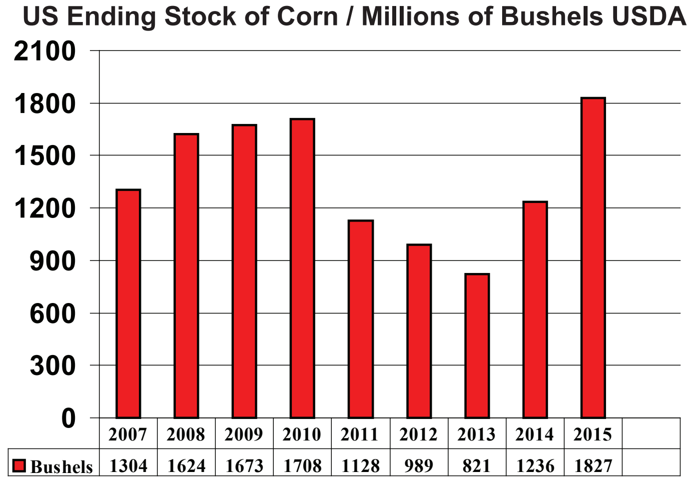


Corn production, use, and ending inventory are all looking good for grain users. There have now been two huge harvests in a row, ending inventories are ample, and the use of corn by ethanol is restrained. Ending inventories are the best predictors of price and are now projected to be one billion bushels higher than in 2013.

Corn – USDA February- Billions of Bushels

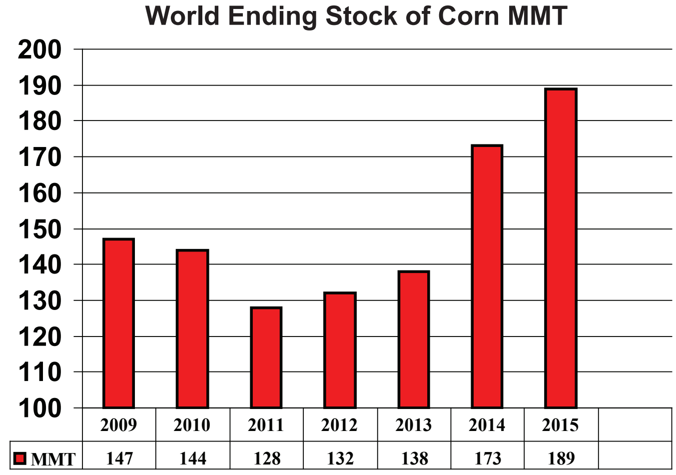
	2012-13	2013-14	2014-15
Beginning Inventory	0.989	0.821	1.232
Harvest	10.780	13.829	14.216
Imports	0.162	0.036	0.025
Supply Total	11.932	14.686	15.472
Ethanol	4.648	5.134	5.250
Exports	0.731	1.917	1.750
Feed	4.329	5.036	5.250
Total Use	11.111	13.454	13.645
End Inventory	0.821	1.232	1.827
Farm Price	$6.89	$4.46	$3.65

US Ending Stock of Corn / Millions of Bushels USDA



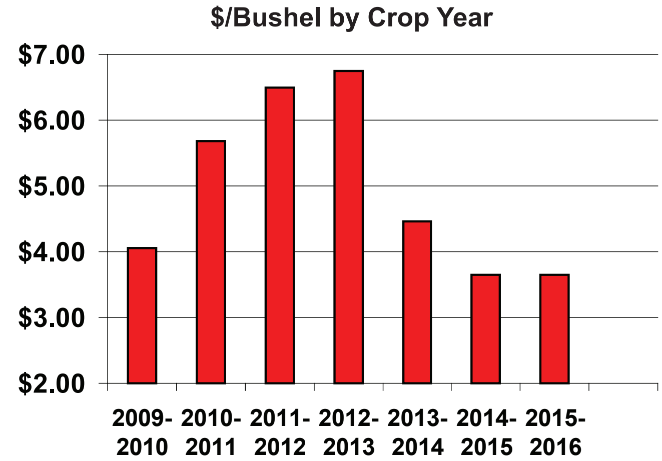
The world ending stock this year will be 189 million tons. Stocks will be much higher than in 2013 when they only reached 138 MT. Larger total world supplies help keep corn prices down.

World Ending Stock of Corn MMT

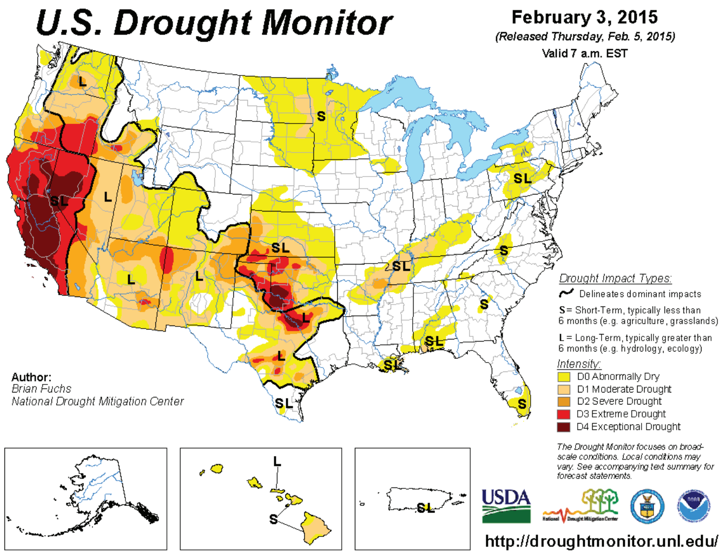


The USDA maintained the projected average price of corn on the farm of $3.65 per bushel in the February WASDE report. Corn is not likely to go much further down from current levels. Some acres are likely to shift from corn to soybeans this year and some will shift from corn to sorghum. The 2015 harvest 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, the average price of corn in crop year 2015-2016 will, in all likelihood, be no lower than the average price in crop year 2014-2015, and could even be higher.

Average Farm Price of Corn
$/Bushel by Crop Year



There is no indication of drought in the Corn Belt except for a portion of Minnesota and the Dakotas. There should be plenty of moisture for spring planting next year. California continues to suffer a drought of historic proportions.



Even after the tremendous harvest of soybeans last fall, soybeans took months to settle down. Meal rose surprisingly from $300 to $400 per short ton in middle of a record harvest last fall and remained close to $400 through the end of the year. Meal prices finally backed down in January. The March Chicago contract is now $326 and contracts further out are even lower. The harvest low of $300 may be revisited this year.

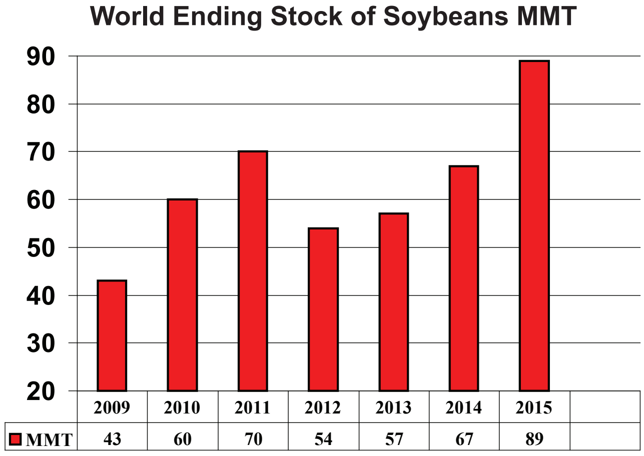
The primary reasons for the robust harvest rally were low ending stocks, logistical problems in the US, increased demand from China, and farmers holding on tightly to soybeans. All of these factors are moderating. Stocks are rising and logistical problems with the railroad are less burdensome than earlier predicted, particularly because of a mild winter in the Midwest. China is shifting attention to South America and farmers are now selling more of their crop. A lot of this crop is yet to be priced and farmers are beginning to realize that they missed their opportunity and will bail out in a panic at much lower prices.

The backwardation currently evident in the futures market suggests that the price will continue to fall as the enormous 2014 harvest is finally priced and moves from overflowing bins into the market.

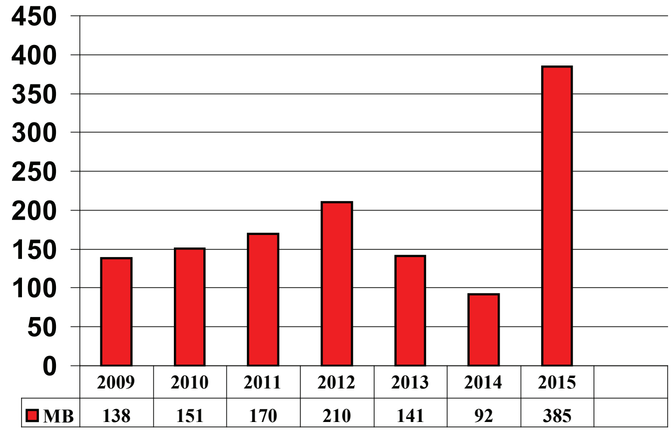
Futures – February 11th Chicago Prices	
March	$326
July	$317
December	$311

The world ending stock of soybeans is expected to be an ample 89 million metric tons this year, up from 56 MT 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 February WASDE showed little change in ending stock.

World Ending Stock of Soybeans MMT



US Ending Stock of Soybeans in Millions of Bushels

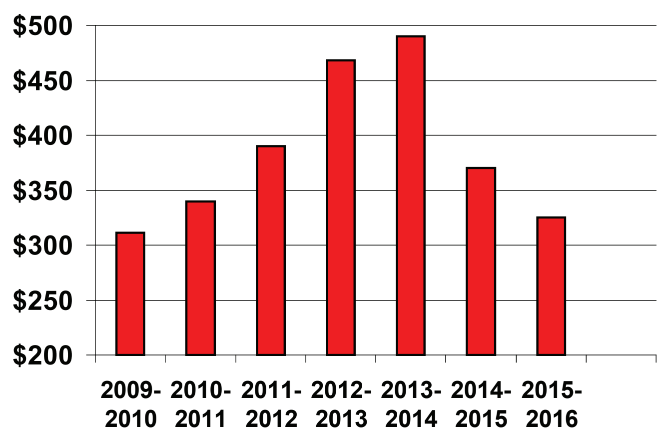


US Soybeans – USDA February – Billions of Bushels

	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	3,701
Ending Inventory	141	92	385
Meal Price short ton	$468	$490	$370

The average price of soybean meal this crop year will fall significantly from the record $490 average of last crop year. The USDA now predicts $370 per short ton for this crop year ($407 per metric ton) slightly higher than 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 next crop year.

Average Crop Year Price of Soybean Meal - Short Ton



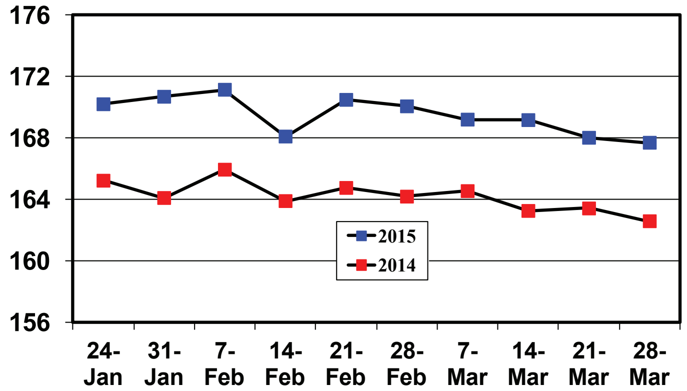
US Chicken Industry Production

Chicken production is increasing at a rapid rate 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, slaughter is running an average of 3% higher in numbers compared to last year in February and March. Lack of breeders or breeder performance is evidently no longer a problem in the industry, it can produce considerably more chickens this year.

In addition, weights are dramatically higher this year due to lower grain costs. The additional cost of higher weight is much less than last year. Chickens are therefore running 3% higher in weight so far this year.

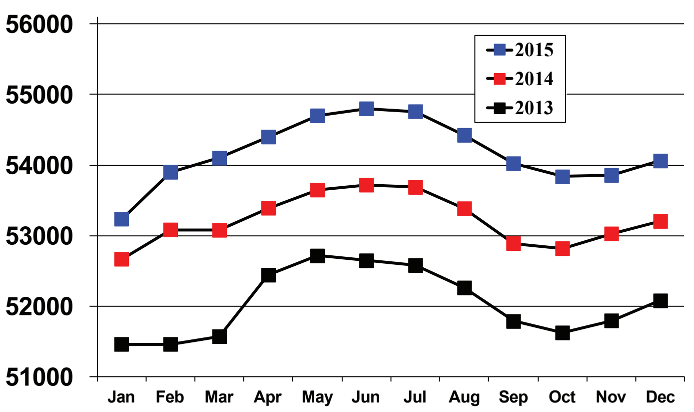
With greater numbers and higher weight, total chicken production is running over 6% higher than in 2014. That is ultimately an unsustainable rate of increase over the long term.

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



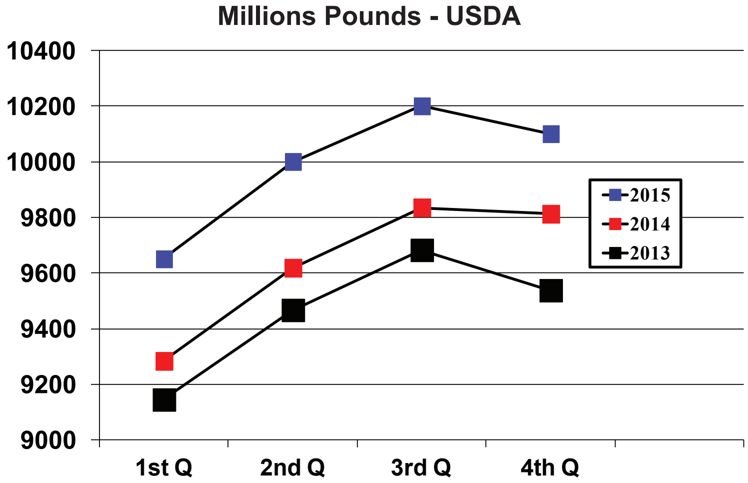
As can be seen on the graph below, the supply of broiler breeders grew significantly from 2013 to 2015. While there were insufficient breeders last year to support the growth the industry wanted, there are now enough breeders to support all the growth the market can handle.

Layers on Hand - Broiler Breeding Flock 2013-2015



The USDA predicts an increase of 3.6% in chicken production this year compared to 2% last year, a projection that appears to still be too conservative despite being raised from 2.7% last month. An increase of 5% may be more likely given the vigorous start to the year.

US Quarterly Broiler Production -
Millions Pounds - USDA



The rapid expansion of chicken production this year will not immediately jeopardize profitability. The dramatic drop in soybean meal prices combined with continued low corn prices makes chicken profitability likely despite soaring production.

Nevertheless, it is important to note that a 5% rate of expansion is, in the long term, unsustainable. The speed limit for the US industry is approximately 2.5% 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.

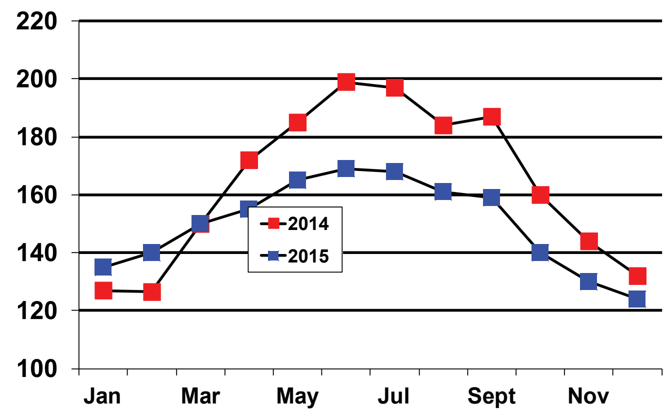
It was previously expected that the chicken industry would receive a boost this year from a lower availability of beef and pork. However, the February estimates now show an increase in red meat availability this year rather than the earlier expected decrease. In particular, the pork industry is increasing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

By 2016, the supply of both beef and pork will be plentiful. At that point, total meat production might exceed the amount the market can absorb profitably. In addition, the low grain prices of this crop year and next could be followed by higher grain prices in 2016-2017. By 2016 or 2017 the stars could become misaligned once again for the chicken industry.

Deboned Breast

Deboned breast prices dropped seasonally in the last quarter of 2014 but rose sharply in January. Experience has shown that foodservice demand rises with falling gasoline prices. That appears to be happening now. A further seasonal increase in the next few months will produce a highly profitable peak price this year of around $1.70 despite rising production. At the end of this year the price could sink to a still profitable $1.25.

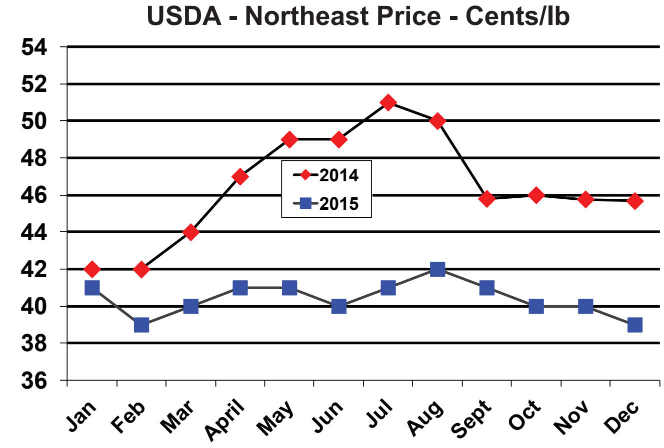
Deboned Breast - 2014-2015
USDA - Northeast Price - Cents/lb



Leg Quarters

Leg quarters are feeling the effects of the strong dollar, weakness in overseas markets, increasing US production, and trade difficulties. Total exports can be expected to be flat this year at best. Given higher production this year, it would appear to be difficult for leg quarters to stay above 40 cents per pound.

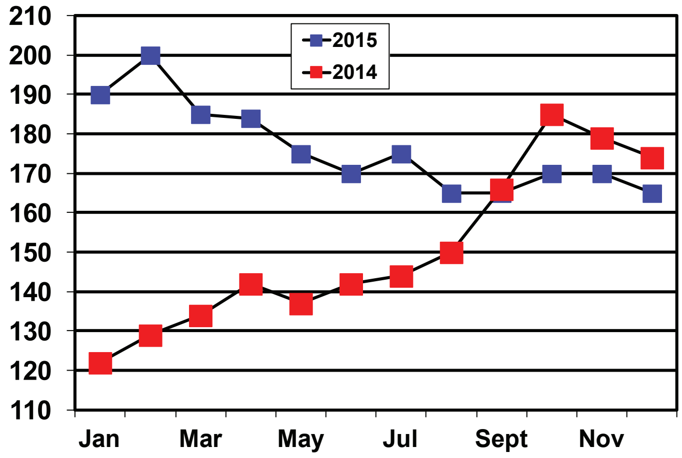
Leg Quarter Price - 2014-2015
USDA - Northeast Price - Cents/lb



Wings

The demand for wings is notoriously inelastic. A slight change in supply can have a huge effect on price. The recent relative shortage of chicken resulted in outsized gains for wing prices. This year, increased production should moderate wing prices. Wings can be expected to start strong in 2015 but end the year at a somewhat lower price compared to 2014.

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



The US industry, using spot prices, is profitable even at the seasonal low point for chicken prices. Looking forward to the summer, seasonally higher chicken prices and relatively low grain prices appear to allow for continued profitability.

February 2015

Leg Quarters	$ 0.38 per pound
Deboned Breast	$ 1.39 per pound
Wings	$ 2.01
Chicago Corn	$ 3.85 per bushel
Soybean Meal	$ 326 per Ton
Total Cost of Eviscerated Chicken	$ 0.72
Revenue	$ 0.76
Gain (Loss) per pound	$ 0.04

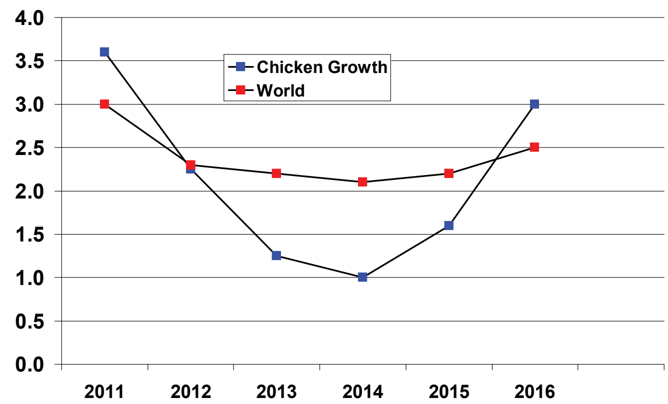
July 2015

Leg Quarters	$ 0.40 per pound
Deboned Breast	$ 1.70 per pound
Wings	$ 1.80
Chicago Corn	$ 4.00 per bushel
Soybean Meal	$ 300/Ton
Total Cost of Eviscerated Chicken	$ 0.71
Revenue	$ 0.83
Gain (Loss) per pound	$ 0.12

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 will 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 3% 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

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.