

BROILER ECONOMICS

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BOTTOM OF THE CYCLE NEAR FOR GRAIN PRICES

Grain prices, when expressed in dollars, are much lower than a few years ago. Barring a major weather problem, both corn and soybean prices should remain relatively low throughout the year. Unfortunately, grain prices, when expressed in the local currency of many countries, rose over the last year. Examples of this include Canada, Mexico, Brazil, and Argentina in the Americas, as well as oil producing countries like Russia, and emerging economies in Asia such as India and Thailand.

The currency-related increases in the cost of grain will be moderating or even reversing this year. It appears the bulk of the currency realignment to the dollar has already occurred. The value of the dollar is likely to move sideways or drop over the rest of this year in most of the world. Therefore, grain prices will at least stabilize and perhaps even fall both in dollar terms and in local currency terms over the next several months.

At the moment, the supply of grain is abundant worldwide.

The April USDA World Agricultural Supply and Demand Estimates (WASDE report) showed little change from earlier estimates. The supply of US corn this crop year is excellent. Ample supplies in the rest of the world suggest that corn prices will be relatively low and stable for the next several months, if not years.

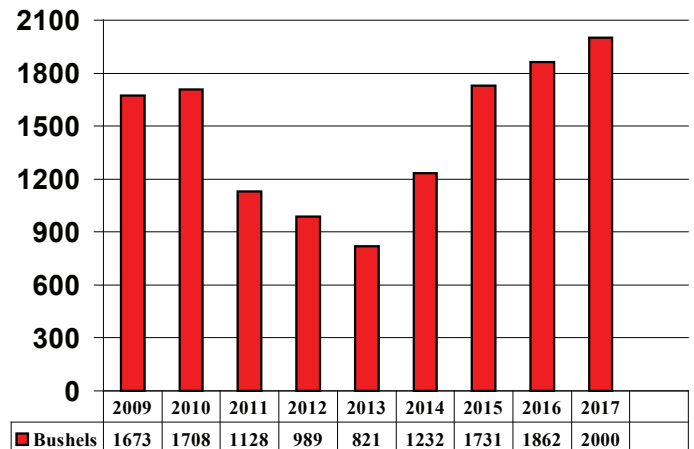
Eventually the cycle will turn. It is likely that the ending stock of corn in the US will be lower starting in 2018 because the cost of production is higher than the current price of corn. However, offsetting any decline in the US will be increasing production in the rest of the world. The falling value of local currencies last year provided an incentive for corn production outside the US. For example, in Argentina, farmers now have a powerful incentive to increase production. Farmers in Brazil and other countries have a similar incentive to increase production.

With production expected to rise in the rest of the world, even if it falls in the US, the next significant upturn in grain prices may not come until crop year 2017-2018 (barring a drought).

US Corn Supply and Demand - April- Billions of Bushels

	2014-15	2015-16	2016-17
Beginning Inventory	1.232	1.731	1.862
Harvest	14.216	13.601	14.143
Imports	0.032	0.050	.050
Supply Total	15.479	15.382	16.000
Ethanol	5.209	5.250	5.250
Exports	1.864	1.650	1.650
Feed	5.315	5.225	5.400
Total Use	13.748	13.521	14.000
End Inventory	1.731	1.862	2.000
Farm Price	\$3.70	\$3.55	\$3.40

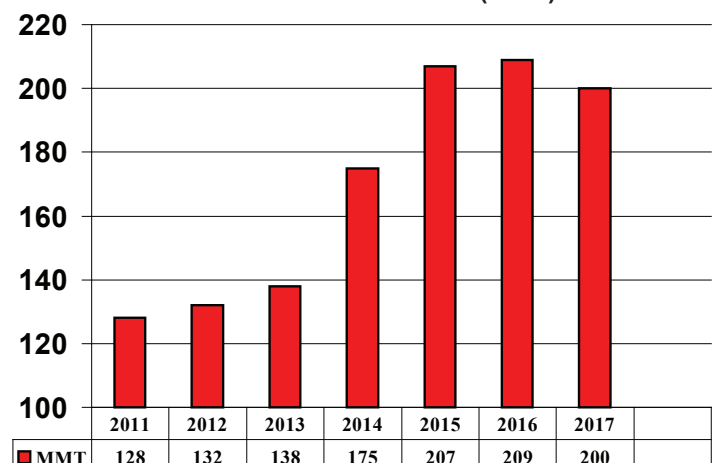
US Ending Stock of Corn
Millions of Bushels USDA



The April WASDE report estimates world-ending stock in 2016 to be 209 million tons, up 2 million tons from 2015. The world is well supplied with corn.

Recently, China announced its intention to lower their large ending stock of corn and shift production to other crops. In the short term, this will put increased downward pressure on corn prices as inventories are reduced, but may well increase corn prices somewhat in the long-run. Because of the Chinese policy changes, the world-ending stock will begin to fall starting in 2017.

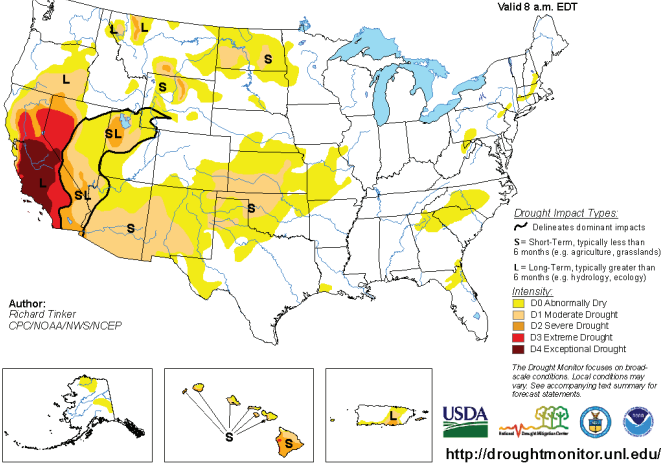
US Ending Stock of Corn
Millions of Metric Tons (MMT)



With no drought in sight (at least in the US), this crop year is not likely to be short and acreage appears to be similar to last crop year. Any production decline is not likely to occur until 2017-18. However, even if production declines in the US, increases in the rest of the world could continue to put downward pressure on corn prices.

U.S. Drought Monitor

April 5, 2016
(Released Thursday, Apr. 7, 2016)
Valid 8 a.m. EDT

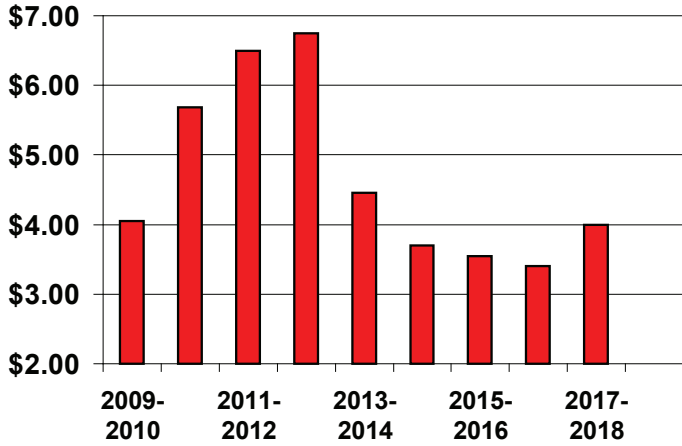


US Soybeans – USDA April – Billions of Bushels

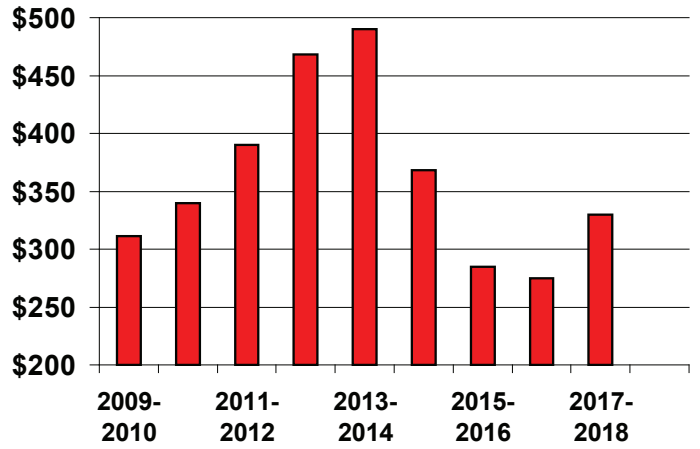
	2014-15	2015-16	2016-17
Harvest	3.927	3.929	4.000
Export	1.843	1.705	1.800
Total Use	3.861	3.705	3.800
Ending Inventory	191	445	645
Meal Price short ton	\$368	\$285	\$275

With soybean meal prices at \$285 per short ton, prices are unlikely to fall much further. Nevertheless prices may not rise significantly until 2017-18. The USDA records \$368 per short ton for last crop year (\$405 per metric ton) and predicts \$285 per short ton (\$314 per metric ton) for this crop year (crop years run from September 1 to August 31).

Average Farm Price of Corn
\$/Bushel to 2017-18 Projected



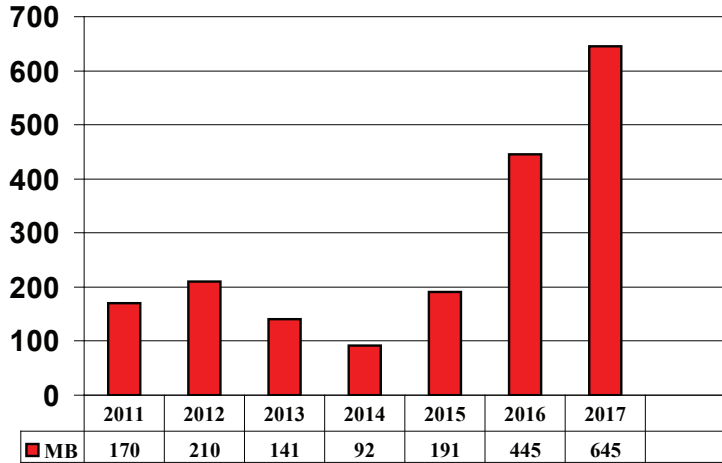
Average Crop Year Price of Soybean Meal
to 2017-18 Projected



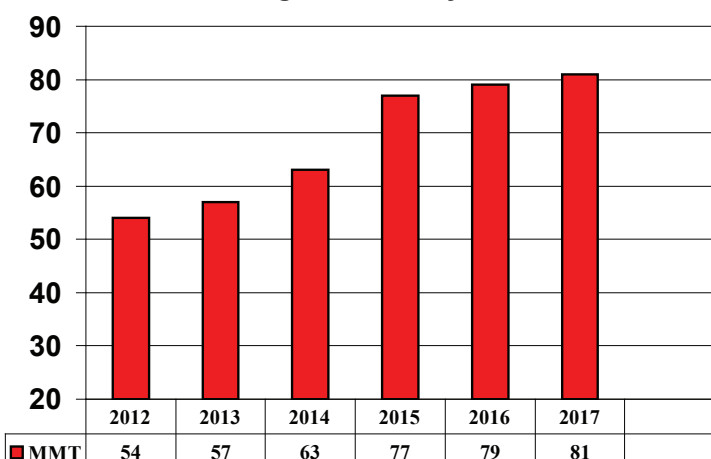
Soybeans

Like corn, soybeans may not begin to significantly increase in price until 2017-18. US and world-ending stock will both be significantly higher in 2016. The supply and stock of soybeans are abundant compared to demand and therefore prices are likely to remain low (in dollars) barring a significant drought.

US Ending Stock of Soybeans - Millions of Bushels



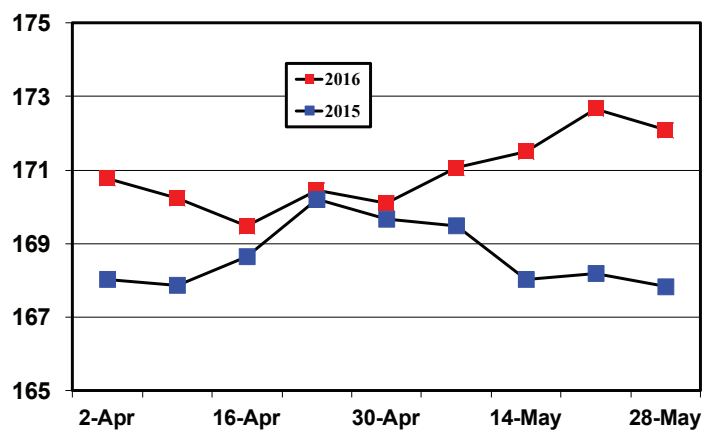
World Ending Stock of Soybeans - MMT



US CHICKEN INDUSTRY PRODUCTION

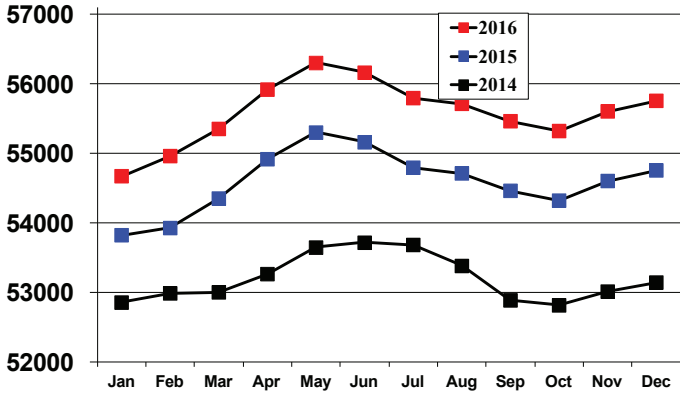
The following graph shows the weekly chick placement in millions moved forward 7 weeks to estimate chickens processed. Using this method of estimation, process numbers are, at the moment, similar to last year but will begin a period of higher production compared to last year in May. For the entire year, the number of chickens processed is expected to rise less than 2%. Weights are also higher. The shift in production to heavier birds for deboning increases the average weight of all chickens. Chickens are running 1% higher in total weight this year.

Weekly Chick Placement - Millions
7 Weeks Forward - 2016 versus 2015



As can be seen on the next graph, the supply of broiler breeders grew significantly from 2014 to 2016. While there were insufficient breeders in 2014 to support demand in North America, there are currently enough breeders to support domestic growth and the increased demand from Mexico. The latest numbers available show a continued increase in the flock. Breeders are now about 2% greater in numbers than at the same time last year and 5% greater than in 2014.

**Layers on Hand - Broiler Breeder Flock
2014-16 Projected**



Chicken available within the US increased at an unusual and unsustainable rate of 7.6% last year due to increased production combined with a sudden drop in export quantity. Exports are recovering somewhat this year. As a result, the increase in the amount of chicken available within the US should fall to just 2.8% this year. Chicken prices should therefore stabilize and even rise in the case of leg quarters in 2016. Lower grain prices will insure a lower break-even price and increased profitability.

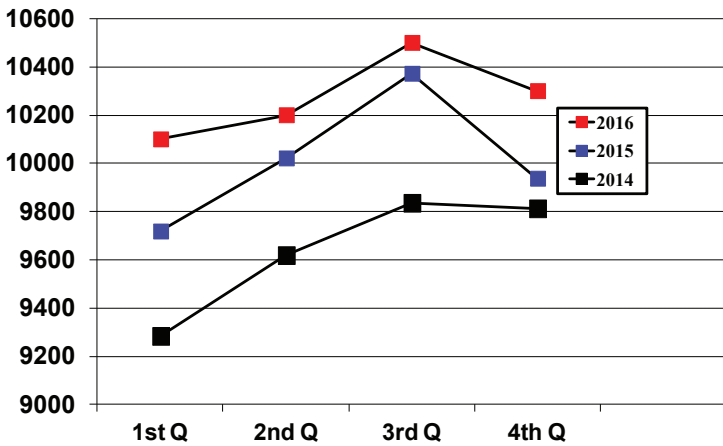
Per Capita Consumption Per Capita in Pounds - US

Year	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	55	91	17	215

Deboned Breast

The price of deboned breast is now rising from the winter seasonal low. The highest prices this year will, in all likelihood, be lower than the highest prices in 2015. However, falling grain prices ensure increased profitability even at lower levels for this key price.

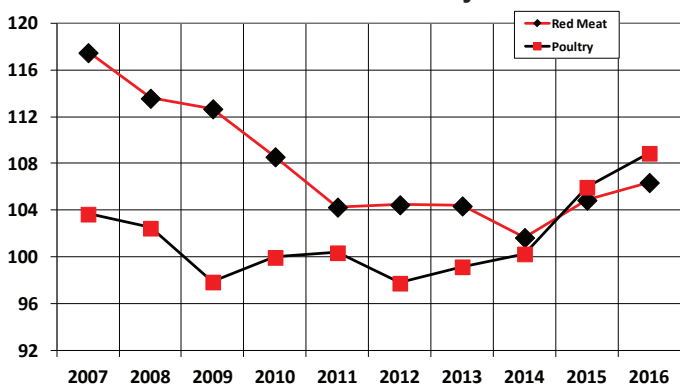
**US Quarterly Broiler Production
Millions Pounds - USDA**



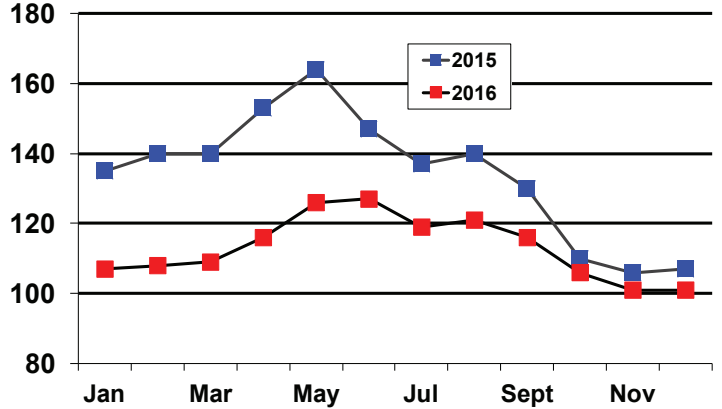
A large increase in chicken production this year is unlikely and would be unprofitable given the pressure of increased beef and pork availability. In 2015 there were 1.6 billion additional pounds of red meat available for domestic use. This year there are projected to be another billion pounds. In all, total red meat consumption per capita will rise nearly 5 pounds from 2014 to 2016. The per capita consumption of poultry jumped 6 pounds last year but is expected to rise just 3 pounds this year.

It is interesting to note that total poultry consumption exceeded total red meat consumption in 2015 for the first time, and that total meat consumption in 2016 is still not back to the level of 2006. Total meat consumption is closely correlated to median income. Median income in the US has also still not yet returned to the level of 2006 after the recession of 2008-2012. Some of the surprising amount of anger expressed by voters this year during the US presidential campaign may well be explained by the 10 year stagnation in median income.

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



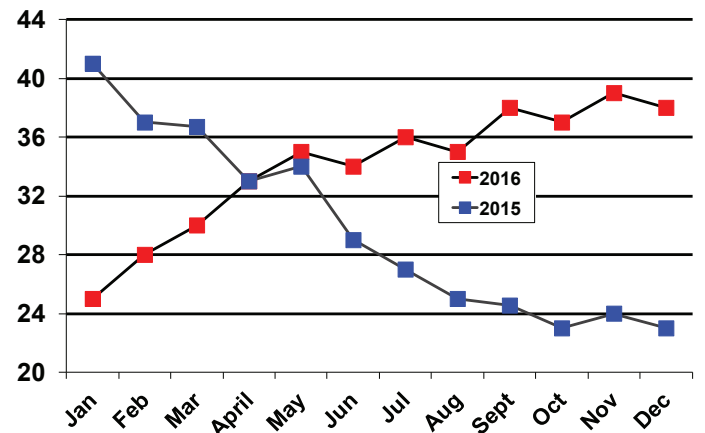
**Deboned Breast - 2015-16
USDA - Northeast Price - Cents/lb**



Leg Quarters

Leg quarters are still feeling the effects of increased production, trade restrictions due to bird flu, and the strong dollar. However, bird flu restrictions are slowly being lifted and the export market is growing. Given current conditions, leg quarter prices could reach close to 40 cents per pound (Northeast Price) this year. There is a wide range in price for leg quarters with many leg quarters sold for a price much lower than the published Northeast price.

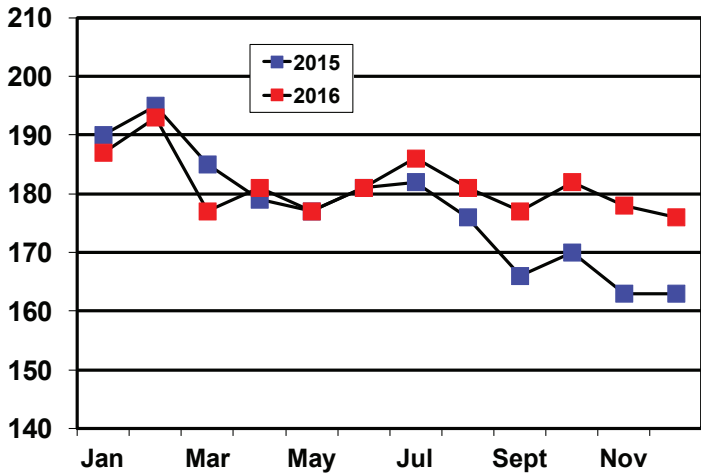
**Leg Quarter Price - 2015-16
USDA - Northeast Price - Cents/lb**



Wings

Wings are a bright spot for the chicken industry with prices far above deboned breast. Demand usually peaks during the American football "Super Bowl" game in February, but it seems that everyday is Super Bowl when it comes to the demand for wings.

Whole Wing Prices - 2015-16
USDA - Northeast Price - Cents/lb



The US industry is now profitable and is likely to remain profitable this year due to low grain prices and rising leg quarter prices. Small birds are profitable and large birds dedicated to deboning are once again profitable.

April 2016

Leg Quarters	\$ 0.31 per pound
Deboned Breast	\$ 1.14 per pound
Wings	\$ 1.80
Chicago Corn	\$ 3.63 per bushel
Soybean Meal	\$ 285/Ton
Total Cost of Eviscerated Chicken	\$ 0.69
Revenue	\$ 0.75
Gain (Loss) per pound	\$ 0.06

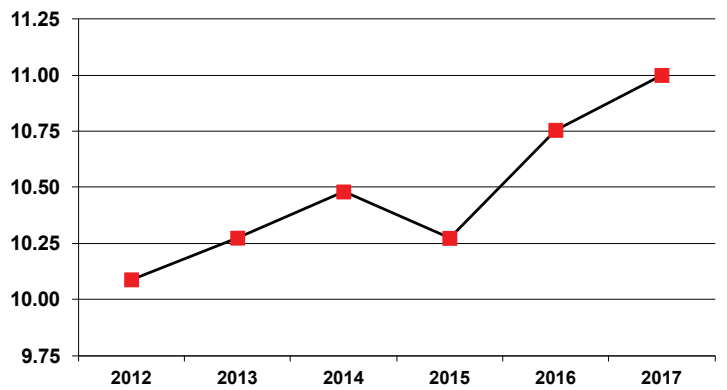
July 2016

Leg Quarters	\$ 0.36 per pound
Deboned Breast	\$ 1.20 per pound
Wings	\$ 1.80
Chicago Corn	\$ 3.63 per bushel
Soybean Meal	\$ 285/Ton
Total Cost of Eviscerated Chicken	\$ 0.69
Revenue	\$ 0.78
Gain (Loss) per pound	\$ 0.09

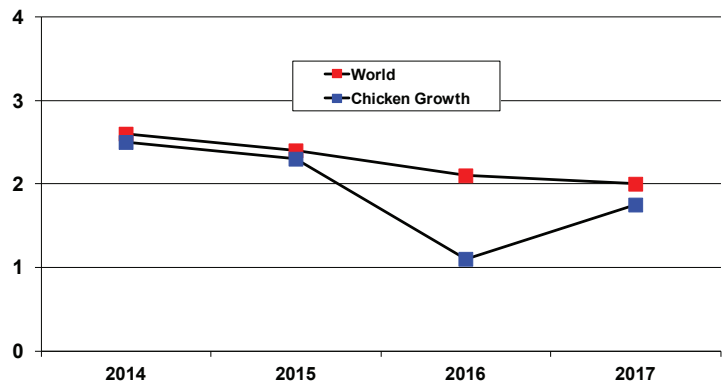
WORLD CHICKEN GROWTH RATE

The growth rate of the world economy is slowing down although a global recession appears to be unlikely. The consequences of slower world economic growth, high grain prices in emerging market currencies, and lower exports of chicken last year dropped the world chicken growth rate to only 1% this year. The chicken growth rate should recover to 2% by 2017 if a world recession is avoided.

World Chicken Exports - Millions of Tons



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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