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**Date:** 2/26/2014

**GAIN Report Number:**

## Peru

## Grain and Feed Annual

## Annual

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**Report Highlights:**

Peru's wheat production in MY 2014/15 (July/June) is forecast to reach 230,000 metric tons (MT), down 3,000 MT or 1 percent from our MY 2013/14 estimate of 233,000 MT. FAS Lima forecasts Peru's wheat imports in MY 2014/15 at 1.75 MMT, up 30,000 MT or about 2 percent compared to MY 2013/14. Corn production in MY 2014/15 (October/September) is forecast to reach 1.76 MMT while imports are expected at 2.3 MMT. U.S. corn exports to Peru are benefiting from a variable levy imposed to corn imported from other origins (currently \$59 per MT) under the Peruvian Price Band System. Within quota U.S. corn is not assess such levy.

Rice production in MY 2014/15 is forecast at 2.1 MMT (milled basis), anticipating a drop of about 56,000 MMT or a decrease of almost 3 percent compared to MY 2013/14 levels.

### Executive Summary:

FAS Lima forecasts Peru's wheat production in MY 2014/15 (July/June) to reach 230,000 metric tons (MT), down 3,000 MT or 1 percent from our MY 2013/14 estimate of 233,000 MT. The total wheat crop area harvested for MY 2014/15 is forecast to fall by 2,000 hectares to about 150,000 hectares as farmers shift to quinoa cultivation. FAS Lima forecasts total wheat consumption almost unchanged at 1.905 million metric tons (MMT) in MY 2014/15; registering only a small increase of 5,000 MT from MY 2013/14. FAS Lima forecasts Peru's wheat imports in MY 2014/15 at 1.75 MMT, up 30,000 MT or about 2 percent compared to MY 2013/14.

FAS Lima forecasts corn production in MY 2014/15 (October/September) to reach 1.76 MMT, up 40,000 MT or over 2 percent from our MY 2013/14 estimate of 1.72 MMT. This increase will be driven by growing demand from the poultry industry. FAS Lima forecasts Peru's corn consumption in MY 2014/15 surpassing 4.0 MMT, up 45,000 MT from the previous year. FAS Lima forecasts Peru's corn imports in MY 2014/15 at 2.3 MMT, up 50,000 MT or over 2 percent compared to MY 2013/14.

Lower international prices of corn triggered the activation of the price band in August 2013, granting within quota U.S.-origin corn an advantage versus corn from Argentina, Brazil, and Paraguay.

FAS Lima forecasts rice production in MY 2014/15 at 2.1 MMT (milled basis), anticipating a drop of about 56,000 MMT or a decrease of almost 3 percent compared to MY 2013/14 levels.

### Commodities:

Wheat

### Production:

Wheat Peru	2012/2013		2013/2014		2014/2015	
	Market Year Begin: Jul 2012		Market Year Begin: Jul 2013		Market Year Begin: Jul 2014	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	150	149	160	152		150
Beginning Stocks	290	290	285	179		117
Production	225	226	220	233		230
MY Imports	1,683	1,671	1,700	1,720		1,750
TY Imports	1,683	1,671	1,700	1,720		1,750
TY Imp. from U.S.	471	467	0	600		650
Total Supply	2,198	2,187	2,205	2,132		2,097
MY Exports	68	113	100	115		115
TY Exports	68	113	100	115		115
Feed and Residual	70	70	60	70		70
FSI Consumption	1,775	1,825	1,775	1,830		1,835
Total Consumption	1,845	1,895	1,835	1,900		1,905
Ending Stocks	285	179	270	117		77
Total Distribution	2,198	2,187	2,205	2,132		2,097

1000 HA, 1000 MT, MT/HA						

FAS Lima forecasts Peru's wheat production in MY 2014/15 (July/June) to reach 230,000 metric tons (MT), down 3,000 MT or 1 percent from our MY 2013/14 estimate of 233,000 MT. We attribute this decrease to farmers shifting away from less profitable wheat cultivation to more lucrative quinoa (an Andean pseudo cereal) production. Local wheat currently trades at roughly \$480/MT, compared to the \$5/kilogram (or \$5,000/MT) that producers can reasonably expect to receive for quinoa.

Wheat is a minor crop in Peru; concentrated mostly in the temperate southern highlands at between 2,800 and 3,500 meters above sea level (not ripening well at the higher altitudes of cultivation). Wheat production is rudimentary, large-scale commercial cultivation remains limited by mountainous geography as much as by economics.

At FAS Lima, we find Peruvian wheat producers to be concentrated mainly among the lower income strata of society. The average wheat farmer cultivates a plot of land no larger than two hectares. Lacking financial means, most local wheat farmers follow rudimentary cultivation practices. Aiming to achieve economies of scale, some farming communities pool resources and form production and marketing cooperatives.

Wheat production is limited to mostly soft wheat, which is often consumed as purees or as a soup ingredient. Wheat varieties cultivated are Andino, Gavilán, Taray, Andenes, and Sulluscocha. Taray (a durum wheat) is grown commercially; the others are bread types.

The total wheat crop area harvested for MY 2014/15 is forecast to fall by 2,000 hectares to about 150,000 hectares as farmers shift to quinoa cultivation. We estimate the total wheat crop area in MY 2013/14 at no more than 152,000 hectares, which represents nonetheless a slight increase of 3,000 hectares or about 2 percent compared to MY 2012/13. With the profitability of quinoa so high, there is a strong economic incentive to expand cultivation of even more drought tolerant varieties to non-traditional agricultural areas on the coast.

FAS Lima finds that the total wheat crop area harvested will vary significantly from one year to the next depending on prices, farmers' profit margin expectations, and the profitability of alternative crops such as barley and oats. We estimate yields in CY 2013 of around 1.44 MT/hectare.

The Food and Agricultural Organization (FAO) estimates Peru's total land area at about 128 million hectares, of which agricultural land area accounts for some 21.5 million hectares. However, only some 3.6 million hectares are deemed arable lands.

The main wheat crop is planted beginning in September with plantings running as late as December depending on the altitude of fields. The harvest runs from January through April. A second, smaller crop is planted in April/May with a July/August harvest. Wheat plantings are alternated with bean plantings; which provide low-income farmers with an alternative food source, livestock forage, and silage as well as assist with nitrogen fixing. Given that cultivation occurs in the basins between

mountains, along valley floors, and or terraced on 45-degree slopes, use of mechanized equipment is minimal.

Domestic millers nonetheless have established a program promoting durum wheat cultivation for pasta production. They are providing small farmers with seed and technical assistance, as well as purchasing production in advance as an incentive. Farmers are now producing around 12,000 MT of durum wheat for a pilot pasta plant in Arequipa (approximately 1,000 kilometers south of Lima). Millers expect durum wheat production to reach 25,000 MT within the next few years.

### **Consumption:**

FAS Lima forecasts total wheat consumption almost unchanged at 1.905 million metric tons (MMT) in MY 2014/15; registering only a small increase of 5,000 MT from MY 2013/14. FAS Lima similarly estimates total wheat consumption at 1.9 MMT in MY 2013/14, slightly up by 5,000 MT or about 0.2 percent compared to MY 2012/2013. The anticipated increase in total wheat consumption is due largely to a minor increase in imports. FAS Lima estimates overall local wheat consumption at just shy of 64 kilograms/person; Peru has a population of approximately 29.8 million (Central Intelligence Agency, July 2013 estimate).

<b>Per Capita Consumption</b>	
Product	Kilograms
Pasta	11.9
Cakes and pastry	1.2
Cookies and crackers	1.7
Bread	28.0
Flour	1.4
Grain	2.8

Note: Per capita consumption at 47 kilograms person in the chart above does not account for beginning/ending stocks, exports, and feed and residual data.

Source: Peru, National Statistics Service.

Peru produces about 1.4 MMT of wheat flour per year. Of this amount 63 percent is used by the local baking industry; the balance goes to pasta manufacturing (20 percent), the cookies and crackers sector (12 percent), and domestic use (5 percent). At FAS Lima, we calculate that roughly 70 percent of domestic flour is sold through traditional markets. While only 20 percent of flour is sold in supermarkets and 10 percent through alternative distribution channels.

FAS Lima finds Peru's wheat milling industry highly concentrated. Of the 23 domestic millers, the largest one alone accounts for over 60 percent of total wheat milled. The country's four largest millers are responsible for around 85 percent of the wheat milled in Peru. This stands in stark contrast to Argentina, which counts with over 200 mills for 42.6 million people (Central Intelligence Agency, July 2013 estimate). Milling industry revenues are estimated at about \$1 billion.

Bread consumption in Peru at 28 kilograms/person is the lowest in South America. Per capita consumption of bread at 37 kilograms in Ecuador and 95 kilograms in Chile, both countries with smaller populations than Peru's highlight the differences in consumer access to and preference for baked bread

products. Bread in Peru is normally purchased fresh, primarily in bakeries. However, per capita consumption of bread (loaves) remains low at only 250 grams/person annually despite a two-fold increase over the last seven years.

Unlike the case with bread, Peruvians tend to be heavy consumers of pasta. Peru, with pasta consumption at 11.9 kilograms/person, is South America's second largest pasta consumer. Pasta consumption in Peru is concentrated in the capital city of Lima, which accounts for half of all pasta consumed nationwide. Sources indicate that pasta consumption is now growing at a faster pace in Peru's provinces than in the capital thanks to improved roadways and the diffusion inland of more western-style dietary habits.

FAS Lima finds that Peruvian cookie and cracker consumption remains very low by regional standards. We understand that only about 70,000 MT (\$100 million) cookie and cracker products per year are consumed by Peruvians.

#### **Trade:**

FAS Lima forecasts Peru's wheat imports in MY 2014/15 at 1.75 MMT, up 30,000 MT or about 2 percent compared to MY 2013/14. We estimate Peruvian wheat imports in MY 2013/14 at 1.72 MMT, up by 50,000 MT or 3 percent compared to MY 2012/13. Canadian wheat imports lead the market with a 36 percent market share in CY 2013 followed by imports from the United States (28 percent) and Argentina (28 percent). U.S. and Canadian wheat exports to Peru have benefited from falling Argentine wheat production; the latter is due primarily to non-weather related government (Argentina) price fixing and export restrictions that are inducing farmers to stockpile or move to more lucrative soybean exports.

Peru's wheat millers are increasingly sophisticated. Over the last two decades, the industry has shifted from importing solely hard red winter wheat (HRW) to a mix of different wheat types (e.g., soft, spring, white, durum northern spring) for blending purposes.

<b>Import Trade Matrix (Metric Tons)</b>	
<b>Commodity</b>	<b>Wheat</b>
Time Period	CY 2013
Imports from:	
<b>United States</b>	<b>647,297</b>
<b>Imports from Others</b>	
Canada	718,237
Russia	257,665
Argentina	163,771
<b>Total from Others</b>	<b>1,139,673</b>
Others not Listed	16,825
<b>TOTAL</b>	<b>1,803,795</b>

Source: SUNAT (Peru Customs Authority).

#### **Policy:**

Wheat is imported duty-free. Although Peru does not specifically promote wheat production, the government does have in place credit and technical assistance programs. These programs seek to improve crop quality and protect consumers from international wheat price spikes.

## Commodities:

Corn

## Production:

Corn Peru	2012/2013		2013/2014		2014/2015	
	Market Year Begin: Oct 2012		Market Year Begin: Oct 2013		Market Year Begin: Oct 2014	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	510	512	530	520		525
Beginning Stocks	217	217	187	189		164
Production	1,530	1,680	1,600	1,720		1,760
MY Imports	1,900	2,254	2,100	2,250		2,300
TY Imports	1,900	2,254	2,100	2,250		2,300
TY Imp. from U.S.	28	0	0	670		710
Total Supply	3,647	4,151	3,887	4,159		4,224
MY Exports	10	9	10	10		10
TY Exports	10	9	10	10		10
Feed and Residual	3,100	3,593	3,200	3,625		3,670
FSI Consumption	350	360	350	360		360
Total Consumption	3,450	3,953	3,550	3,985		4,030
Ending Stocks	187	189	327	164		184
Total Distribution	3,647	4,151	3,887	4,159		4,224
1000 HA, 1000 MT, MT/HA						

FAS Lima forecasts corn production in MY 2014/15 (October/September) to reach 1.76 MMT, up 40,000 MT or over 2 percent from our MY 2013/14 estimate of 1.72 MMT. We attribute the increase to growing demand from the poultry industry. Over the past five-years, yellow corn production has grown steadily to meet feed needs.

At FAS Lima, we find that of the various varieties of corn grown in Peru, yellow corn is the most commercially important variety. In MY 2013/14 we estimate yellow corn production reaching some 1.4 MMT. Peru's yellow corn production is primarily for the country's animal feed industry. We estimate that the bulk of the balance of MY 2013/14 corn production, some 306,000 MT are high starch varieties that go primarily into the human food chain.

FAS Lima forecasts MY 2014/15 total corn area harvested at 525,000 hectares, up some 5,000 hectares or 1 percent compared to our MY 2013/14 estimate of 520,000 hectares. Much like in the two previous

marketing years, we anticipate a yellow corn/starchy corn planting ratio of roughly 55:45 for MY 2014/15.

FAS Lima sees MY 2014/15 yellow corn average yields of 4.6 MT/hectare and starchy corn yields of 1.25 MT/hectare. We understand yellow corn yields to vary greatly depending on the locality and producers' access to technology (i.e., improved seeds, fertilizer, irrigation, and mechanized equipment). In Peru's coastal agricultural areas we are seeing yellow corn yields improve significantly over the course of the past decade; going from about 6.5 MT/hectare to now over 8.8 MT/hectare. FAS Lima attributes better yields over time to the introduction of improved seeds and more sophisticated cultivation practices. On the eastern slope of the Andes, in Amazonian fields we are seeing yellow corn yields dropping to 2.1 MT/hectare and lower due to poor/degraded soils and less sophisticated production methods.

### **Consumption:**

FAS Lima forecasts Peru's corn consumption in MY 2014/15 surpassing 4.0 MMT, up 45,000 MT or growing over 1 percent from our MY 2013/14 estimate of 3.9 MMT. We attribute the uptick in corn consumption, particularly of yellow corn to expansion of the country's poultry industry. Peru currently consumes some 48 million birds (broilers) per month. We estimate that over 68 percent of domestically produced yellow corn goes towards chicken feed to supply the country's 1,000 plus poultry farms. We forecast yellow corn consumption in MY 2014/15 at roughly 3.7 MMT.

FAS Lima finds that a hurdle facing increased poultry sector consumption of imported (U.S.-origin) corn is the presence of informal domestic poultry producers. These unregistered producers, which do not pay taxes, account for about 25 percent of overall poultry meat production. However, their non-tax contributing status precludes them from obtaining import permits for foreign corn; curtailing the possibility of additional U.S. corn imports.

### **Trade:**

FAS Lima forecasts Peru's corn imports in MY 2014/15 at 2.3 MMT, up 50,000 MT or over 2 percent compared to MY 2013/14. We estimate Peruvian corn imports in MY 2013/14 at 2.25 MMT, down by 4,000 MT or dropping 1 percent compared to MY 2012/13. On a calendar year basis (for which more precise data is available) we see Peru importing about 2.0 MMT of yellow corn in CY 2013; which represents an increase of 9 percent compared to CY 2012. With a 70 percent market share, Argentina remains Peru's primary supplier of yellow corn in CY 2013.

<b>Import Trade Matrix (Metric Tons)</b>	
<b>Commodity</b>	<b>Yellow Corn</b>
Time Period	CY 2013
Imports from:	
<b>United States</b>	<b>219,739</b>
<b>Imports from Others</b>	
Argentina	1,377,534
Paraguay	211,426
Brazil	147,844

<b>Total from Others</b>	<b>1,736,804</b>
Others not Listed	48,800
<b>TOTAL</b>	<b>2,005,343</b>

Source: SUNAT (Peru Customs Authority).

Peruvian feed and poultry producers continue favoring Argentine and domestically produced corn over U.S.-origin product alleging quality concerns. Specifically poultry producers claim that Argentine and Peruvian corn is harder, coming with fewer broken kernels. FAS Lima estimates the average price of domestic yellow (feed) corn in MY 2013/14 at about \$320/MT, up from \$314/MT, growing demand will drive this increase.

Peru is also importing for testing purposes dried distiller grains with solubles (DDGS) seeking to improve the quality of domestically produced animal feeds. FAS Lima believes that U.S. DDGS have good market prospects. We estimate that Peru is a 100,000 MT market for U.S. DDGS.

### Policy:

Corn enters duty-free. Peru's unilateral elimination of import tariffs on most commodities eliminated many of the trade advantages afforded by the U.S.-Peru Trade Promotion Agreement (PTPA). However, the PTPA established a duty-free tariff rate quota (TRQ) of 500,000 MT for U.S.-origin corn with annual increases of 6 percent and full duty-free access within 12 years.

Peru maintains a corn price band. This price band imposes a variable levy aimed at ensuring that corn imports enter the market at a minimum threshold price (floor price). Peru imposes this tax on certain "sensitive" products (i.e., corn, rice, sugar and powdered milk). The variable levy for corn is set at \$55/MT. Falling international prices of corn triggered the activation of the price band in August 2013, granting within quota U.S.-origin corn an advantage versus corn from Argentina, Brazil, and Paraguay. Between August and December, U.S. corn exports to Peru surged from 0 to 219,739 MT. The 2014 TRQ for corn is set at 669,113 MT. FAS Lima, estimates that the U.S.-specific TRQ will be filled by the end of March 2014 at the current pace.

### Commodities:

Rice, Milled

### Production:

Rice, Milled Peru	2012/2013		2013/2014		2014/2015	
	Market Year Begin: Apr 2012		Market Year Begin: Apr 2013		Market Year Begin: Apr 2014	
	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Area Harvested	390	394	380	405		400
Beginning Stocks	269	269	290	284		270



<b>Milled Production</b>	2,025	2,100	2,035	2,156		2,100
<b>Rough Production</b>	2,935	3,043	2,949	3,125		3,043
<b>Milling Rate (.9999)</b>	6,900	6,900	6,900	6,900		6,900
<b>MY Imports</b>	246	245	275	220		240
<b>TY Imports</b>	200	245	275	220		240
<b>TY Imp. from U.S.</b>	0	0	0	0		0
<b>Total Supply</b>	2,540	2,614	2,600	2,660		2,610
<b>MY Exports</b>	50	50	60	70		70
<b>TY Exports</b>	50	50	60	70		70
<b>Consumption and Residual</b>	2,200	2,280	2,240	2,320		2,350
<b>Ending Stocks</b>	290	284	300	270		190
<b>Total Distribution</b>	2,540	2,614	2,600	2,660		2,610
1000 HA, 1000 MT, MT/HA						

FAS Lima forecasts rice production in MY 2014/15 at 2.1 MMT (milled basis), anticipating a drop of about 56,000 MMT or a decrease of almost 3 percent compared to MY 2013/14 levels. At FAS Lima, we are anticipating that the MY 2013/14 bumper crop will drive down prices, motivating farmers to cut back on plantings leading to a drop in production in MY 2014/15.

We estimate rice production in MY 2013/14 at 2.156 MMT, up 56,000 MT or an increase of nearly 3 percent compared to MY 2012/13. We attribute this increase to good weather conditions, accompanied by ample water supplies during the October-December planting season.

The total rice crop area harvested for MY 2014/15 is forecast to fall to 400,000 hectares, down by 5,000 hectares or over 1 percent. We estimate total rice crop area in MY 2013/14 at about 405,000 hectares, up 11,000 hectares or an increase of some 3 percent compared to MY 2012/13.

Rice production remains concentrated in Peru's arid northwestern coastal region (mainly in Lambayeque and Piura provinces). Production contends with poor quality soils and increasing soil salinization due to field flooding irrigation techniques. Peruvian rice is surface irrigated, dependent upon water draining from Andean rivers hundreds of kilometers distant. Average rice farm size is about five hectares.

The government of Peru has sought with some success, to expand rice cultivation along the eastern slope of the Andes (particularly in San Martin province). The government has however failed to fully dislodge the coastal rice producers. These often low-income, small-scale farmers currently have no real incentive to switch to a less water intensive crop (e.g., cotton). FAS Lima finds that water fees charged to farmers to be almost non-existent (instead of the \$250/hectare that should be assessed), this along with decent returns due to elevated international rice prices, continues to hinder government attempts to shift production away from the arid coastal areas.

We find rice prices commanded by farmers over time to be dropping as local production increases and move the country towards greater rice self-sufficiency. Rice normally harvested April through May, averaged about \$306/MT in CY 2013. This price represents a 5 percent price drop compared to the

previous year. Should present production levels remain unabated, augmented by increasing yields, we anticipate crop prices to drop further over time.

Despite the bulk of rice cultivation being undertaken by smaller producers, whose quality and yields fluctuate widely, yields averaging 7.82 MT/hectare are respectable (the world average is about 4 MT/hectare). Some farmers are reporting yields as high as 14 MT/hectare. Ultimately high yields are dependent on the use of adequate inputs, which themselves remain reliant on producers' crop price expectations.

### **Consumption:**

Rice is a staple product in Peru; per capita consumption hovers at 60 kilograms/year. Rice has traditionally been sold in 50-kilogram sacks. With the expansion of supermarket chains, consumer habits are changing; consumers are demanding prepackaged, one-kilogram bags.

### **Trade:**

FAS Lima forecasts Peru's rice imports in MY 2014/15 at 240,000 MT, up 20,000 MT or over 9 percent compared to MY 2013/14. We estimate Peruvian rice imports in MY 2013/14 at 220,000 MT, down by 25,000 MT or dropping 10 percent compared to MY 2012/13. On a calendar year basis (for which more precise data is available) we see Peru importing over 176,000 MT of rice in CY 2013; which represents a 23 increase compared to CY 2012. Uruguayan rice, with a market share of 80 percent dominates Peru's market. Argentina, Brazil, and Thailand are also significant players. Imports of U.S. rice however are nearly non-existent.

FAS Lima attributes Uruguay's disproportionately large share of the imported rice market to: 1) U.S. rice's less competitive price and 2) the longstanding relationship between the main Uruguayan supplier and Peru's major importer. The former is said to supply advantageous credit conditions. FAS Lima and the Animal and Plant Health Inspection Service are however working to open the market for U.S. paddy rice, which is banned for phyto-sanitary reasons by Peru's sanitary authority (SENASA).

<b>Import Trade Matrix (Metric Tons)</b>	
<b>Commodity</b>	<b>Rice</b>
Time Period	CY 2013
Imports from:	
<b>United States</b>	<b>1,001</b>
<b>Imports from Others</b>	
Uruguay	142,227
Brazil	16,060
Argentina	10,362
Thailand	3,933
<b>Total from Others</b>	<b>172,582</b>
Others not Listed	2,702
<b>TOTAL</b>	<b>176,285</b>

Source: SUNAT (Peru Customs Authority).

FAS Lima estimates that some 80,000 MT of paddy rice is unofficially exported from Peru to Ecuador. Peru's rice producing areas of Piura, Amazonas and San Martin are close to the Peru-Ecuador border; contraband trade is very active as customs and police controls are strained.

**Policy:**

Rice enters duty-free. Peru's unilateral elimination of import tariffs on rice eliminated many of the trade advantages afforded by the U.S.-Peru Trade Promotion Agreement. However, the PTPA establishes a duty-free TRQ of 72,000 MT for U.S.-origin rice with annual increases of 6 percent and full duty-free access within 17 years.