



Special Report:
**2011 World
Feed Outlook**

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World Feed Panorama: Expensive grain slows industry expansion

Estimates put the value of world feed industry output at some US\$240 billion annually. Our exclusive survey reveals a mixture of returning optimism and fears over grain prices.

Shared Growth Beyond Crisis was a slogan adopted for the G20 Summit of world government leaders held in South Korea in November 2010, but it would serve equally well to describe the trend in global feed production over most of the past 12 months. Where 2009 had undoubtedly been difficult for feed manufacturers in many countries, there was a recovery of volumes and of optimism in 2010 - until fears resurfaced in the later part of the year about the price of grain.

As a result, a mixed picture was found by our latest World Feed Panorama survey of the quantity of compound feeds for all species made by commercial and industrial mills. Just as there were numerous examples of national feed industries increasing their annual tonnage, so also the first estimates reaching us from other places pointed to a standstill in production, or perhaps a small downturn.

Our survey report a year ago said that the global output of compound feeds had managed to grow by around 1% in 2009, to a total of 707.6 million metric tons, despite the pain caused to national and regional economies by the international financial crisis and the continuing fall-out from a highly volatile grain market. A year later, on the basis of preliminary data, we have put world feed production in 2010 at 717.6 million metric tons. We believe the world total rose again last year, by 1.4%.

Several possible reasons can be proposed for this relatively small annual increase in what was expected to be a better year for the feed sector globally.

One is that the rather fragile economic recovery in several areas of the world delayed the increase forecast for animal protein consumption and therefore slowed the growth in feed demand. Another is that the grain price rise in the second half of 2010 hit the confidence of livestock farmers, who reacted by postponing any planned expansion of animal numbers.

Europe

A further factor on the ruminant side in Europe was that dairy farms generally were able to produce more milk from their maize and grass silage, which meant a lower ratio than in the previous year for the quantity of supplementary feeding per unit volume of milk produced. On figures compiled by Europe's feed federation FEFAC, there appears to have been a slippage in the total compounds output of European Union mills from 153.4 million metric tons in 2008 to 147.6 million tons in 2009 and again to 146.1 million tons in 2010.

Americas

In Brazil, national association Sindicato Nacional da Indústria de Alimentação Animal (Sindirações) extrapolated results for the January-October period to indicate that

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- ★ Europe feed tonnages 2009-2010
- ★ EU feed production by country 2008-2009
- ★ EU feeds by species
- ★ Aquafeed requirements by country 2009
- ★ North American feed tonnages
- ★ Latin American feed tonnages 2009-2010
- ★ Middle East, Africa feed tonnages 2009-2010
- ★ Asia Pacific feed tonnages 2009-2010

the Brazilian animal feed industry produced about 60.4 million metric tons of compound feeds in 2010. It would mean a market expansion of almost 3.5%, says Sindirações executive vice-president Dr Ariovaldi Zani.

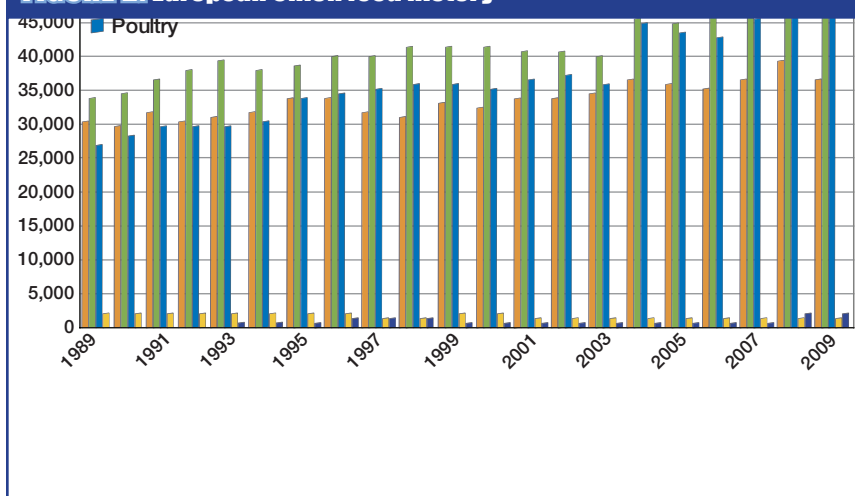
Feed volumes nationally registered a growth of 3.3% in the first 10 months of 2010, he reports. Brazil's annual tonnage had slipped by 5% in 2009 after increasing by about 10% in 2008.

Both broiler chicken and layer hen feed production advanced strongly between January and October, prompting a forecast of an increase to 33.8 million tons for the annual output of poultry feeds in 2010 compared with 32.64 million tons in 2009. The Brazilian association projected 15.3 million tons of pig feeds produced in 2010, about the level recorded in 2009, with cattle feeds rising slightly to 7.1 million tons from 6.78 million tons.

FIGURE 1: Evolution of feed tonnage in major producing countries/regions 1999 to 2010 (x 1000 metric tons)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
EU-27	125046	124346	126190	127182	126150	144315	141936	142117	151194	153390	147574	146125
China	55700	57000	58000	61300	64400	63100	77610	81169	93189	105900	106960	108940
USA	140900	142000	142000	143000	14550	147000	150000	152000	152700	154500	148800	155275
Brazil	30400	34400	38800	41594	41533	43452	47200	48400	53600	59000	58400	60400
Mexico	19922	20958	21701	22249	22600	23240	24300	25000	25566	26200	27000	27300
Japan	24000	24000	24000	23700	24100	23900	23553	23863	24048	24138	23906	23855

While Europe and Japan recorded slight contractions, output by other major producers was higher.

FIGURE 2: European Union feed history

European growth has been patchy over the last two decades but, overall, the trend has been positive.

But as Dr Zani points out, mills have faced a major rise in production cost due to more expensive raw materials. After a good supply of grain in the first six months of the year, from July onwards the market for the two principal feed ingredients – soybean meal and corn – came under pressure from various factors and jumped in price by 15% and 30%, respectively. Other difficulties highlighted by Dr Zani include a high exchange rate for Brazilian currency, the Real, which has limited export sales of meat.

Argentina and Mexico are reporting volume increases for their feed sectors in 2010. Argentina is now producing around 11.5 million metric tons of feeds annually. Mexico's CONAFAB national council of feed manufacturers and animal nutrition considers that the 400 mills active in Mexico produced approximately 27.3 mil-

Russia

A big increase in Russia's poultry feed production has been projected by Russian government officials. In a draft program on the development of feed production, they foresee poultry's share of compound feed consumption growing from 31% in 2009 to 34% in 2012. A USDA report has estimated that poultry establishments in Russia currently manufacture about 70% of their total feed requirements.

lion metric tons of feeds in 2010. The country's feed production capacity is about 34 million tons. Around 13 million tons of capacity and 10.1 million tons of output relate to commercial enterprises that sell their products, but integrators have the larger market share with 21 million tons of capacity and 17.2 million tons produced.

Africa

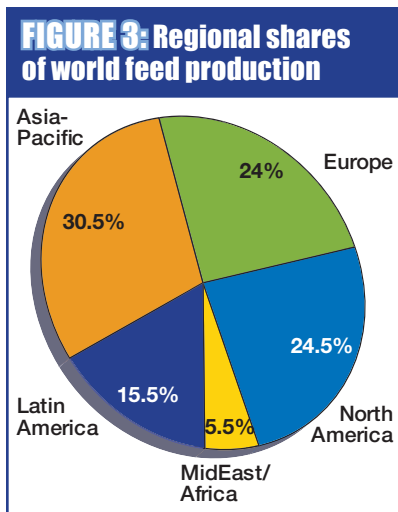
The view from South Africa is undeniable positive. "We think that feed sales here

The price of cereals

Feed sales in 2010 may actually have been boosted in some areas by the resurgent cereal prices. The market so far this century has seen a steady, longer-term trend to more farmers and integrators deciding to manufacture their own feeds. But there were signs in 2010 of grain growers opting to sell their crop instead of using it for home-mixing, which then meant more farms purchasing complete diets.

could see a growth rate of 4-5% in the 12 months to March 2011," declares De Wet Boshoff, executive director of South African feed manufacturers' association AFMA. "Our market did not escape the economic crunch after 2008, decreasing from 7.5% of real growth that year to just 2% in 2009. This was led mainly by a consolidation effect as farmers' expansion plans were put on ice and stocking densities were reduced until better economic conditions prevailed.

World feed panorama



Asia-Pacific continues to account for the largest share of global feed production.

"The impact of the economy on consumer spending translated to a delayed recovery in the total food chain. However, the South African compound feed market recorded 4.5% growth between April 2009 and March 2010, largely driven by an increase in poultry feeds. Although protein prices have stayed rather high, we have enjoyed the advantage of a bumper maize crop of 13 million metric tons compared with our annual corn requirement of 10-11 million tons. That has given a lower corn price on SAFEX (South Africa's agricultural commodity futures exchange) and our feed companies were able to lower their prices softening the conditions experienced by their customers."

Asia

In Indonesia, the most recent annual growth rate for feeds has been estimated conservatively at 3.1%. Some Indonesian sources say this fails to take account of the new mills that opened during the year and at least a 4% rise in national feed production occurred in 2010. The main drivers locally are the sectors for poultry and aquaculture, taking 85% and 12%, respectively, of all feeds produced.

Aquaculture remains the hottest part of the Vietnamese market, to judge by remarks from Philippe Serene at feed company Proconco in Vietnam. "I can confirm

FIGURE 4: World total feed production x million metric tons

Year	Million tons
1995	590
1996	597
1997	605
1998	595
1999	606
2000	611
2001	617
2002	624
2003	632
2004	634
2005	646
2006	656
2007	680
2008	700
2009	708
2010	718

Hard times may have continued in some markets but, overall, output was higher again in 2010.

that Vietnam's total feed production in 2010 is expected to have reached 10.9 million metric tons compared with 9.5 million tons in 2009 and only 6.6 million tons as recently as 2006," he told us. "One limiting factor in the past year has been from animal diseases."

"The aquaculture feed market has grown even more, from a level of 662,000 tons in 2006 to 1.92 million tons in 2009. Vietnam today has about 240 mills producing feeds for farm animals and 106 production sites for aquafeeds. New projections here say that the farm feed volume will grow to almost 16.4 million tons by 2015 and to over 19.2 million tons in 2020. By then, the Vietnamese aquaculture sector is forecast to be using 5.5 million tons of feeds per year."

However, sales of feeds for fish farms reportedly suffered a downturn in the Philippines last year. Although the decrease was probably about 5%, officers at the Philippine Association of Feed Millers have emphasised the contrast with the 6% per year average growth rate of the country's aquaculture production in the previous 10 years.

China

China already has a 15-year history of sales increases for premixes and concentrates. In 2009 these products had represented totals of about 6 million metric tons and 27 million tons respectively, compared with just less than 107 million tons of complete compounds.

At first in 2010, the main growth appeared to be in compounds as total feed sales rose by 6% in the first quarter of the year. Some 23.25 million tons of compound feeds were supplied to Chinese livestock and poultry farms between January and March 2010. There was already a suggestion locally that many farm owners had reacted to a substantial rise in corn prices by switching from on-farm mixing to the purchase of diets from feed mills.

But initial forecasts of an annual growth rate of between 5-10% for China's feed output in 2010 were revised downward later to only about 2% through a combination of high raw material costs and market difficulties.

Grain effects have provided a bigger talking point recently among feed manufacturers in the Philippines, where the total demand for complete feeds dropped in 2010. "The dramatic uptrend in global commodity prices since the middle of the year hit us hard," one industry insider comments. "Philippine mills traditionally use wheat as a substitute for maize, but a switch to wheat was unable to offer much relief from a corn price that has been on the rise since the end of October."

The feed sector in the Philippines was not helped by local pork prices remaining weak. Although poultry feed sales stayed strong, there have been fears of a return to the over-supply of broiler chickens last seen in the middle to late 1990s. A glut of broilers was reported again in 2010, blamed on the aggressive expansion of major integrators in recent years.

Growth and change in the Chinese feed market

China's feed producers have dramatically increased production over the last decade, and while this growth will continued, difficulties will have to be resolved.

The Chinese feed industry has changed tremendously over the last decade. Total feed output is now comparable to that of the US and the EU, while 10 years ago the country was able to produce only half this amount. Despite this growth, uncertainties remain for the industry, particularly the lack of feed ingredients.

In 1980, industrially-produced feed in China stood at only 1.1 million tons. By 1990, with an average annual growth of 3.08 million tons, this figure had risen to 31.94 million tons. By 2000, the country's industrially-produced feed output had grown to 74.29 million tons, and reached 148 million tons by 2009. By 2009, the value of industrially-produced feed had reached Yuan 426.6 billion (US\$65 billion), up from Yuan 20.7 billion in 1990.

With rising living standards, consumption of animal products will continue to increase, and this, in turn, will increase demand for animal feed products.

New focus

Yet it is not only output that has increased, the industry has also been characterized by increasingly stringent controls and higher standards. Random sampling of feed was conducted in China for the first time in 1987. At this time, only 20% of samples passed inspection. By 2009, this figure had reached 91.51%, while the rate



for formula feed stood at 95.9%.

China is currently an importer of methionine. In 2001, the country imported 60,000 tons of methionine, and 80,000 tons in 2006. By November of 2010, imports had reached 97,000 tons, and for the year as a whole imports were expected to exceed 100,000 tons.

However, the Chinese market for methionine is changing. In September 2010, Chongqing Unisplendour Tianhua Methionine Co Ltd announced that it had built the first production plant in China for feedgrade DL-methionine, allowing domestically-produced methionine to be purchased for the first time. Several other methionine projects are under construction in Jiangsu, Liaoning and Sichuan provinces, meaning that more locally-produced methionine products will soon be appearing on the market.

It is expected that there will be at least seven methionine producers operating in China, each with an estimated annual output of 20,000 tons. China's production capacity for feedgrade methionine is expected to reach 500,000 and, given that the country only consumes some 100,000 tons of methionine each year, producers will look to ex-

Growing production fails to meet demand for feed ingredients

While China's crop production may be growing, it is insufficient to meet the growing need for feed ingredients.

The country's grain output increased again last year, reaching 546.4 million tonnes, says the National Bureau of Statistics, while the China National Grain and Oils Information Centre says that wheat output accounted for 115 million tonnes last year.

In 2010, China imported a record 54.8 million tonnes of soybeans and 1.5 million tonnes of corn – a 15 year high. Rabobank predicts that China could emerge as the world's biggest importer of corn over the next few years, with annual demand rising from its current level of 1.3 million tonnes to 25 million tonnes by 2015.

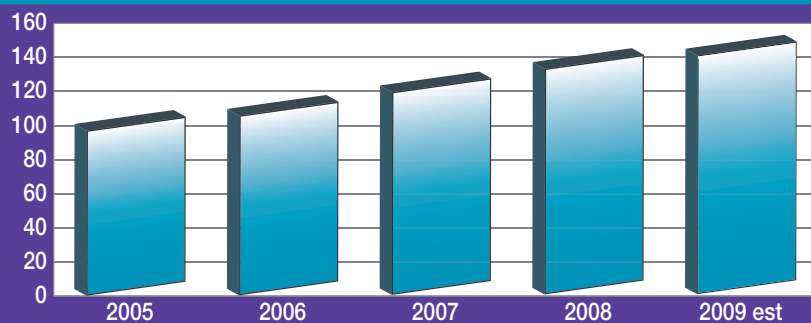
Customs data shows that China imported over 2.9 million tonnes of DDGS over the first 11 months of 2010, an increase of 543% year-on-year.

port overseas with the advantage over competitors of having lower production costs.

A similar story is unfolding for other feed additives. Over the last decade, China has become an exporter of a variety of additives, of which vitamins A, C, and E and choline chloride have taken some 30-50% of the global market. China's net exports of lysine reached 72,000 tons in 2009.

Shortages

Across all feed ingredients, protein is what China needs most. As the biggest protein exporter in the world, 70% of all protein needs to be imported. Over recent years, China has been importing some 50 million tons of soybeans and 1.2 million tons of fish meal each year, with a value of Yuan 150 billion.

TABLE 1: China's feed output, 2005 - 2009 est (million tons)

Source: CCM International

China's rapid increase in demand for animal feed is forecast to continue in line with rising demand for animal protein.

STAY AHEAD:

To learn more about world feed trends, see

www.WATTAgNet.com/15330.html

This high dependence on imports has led some of the country's experts to suggest greater use of agricultural waste in feed. For example, sugarcane and cassava have been extensively planted in Guangxi province, resulting in tens of millions of tons of plant waste each year. This waste could be turned into animal feed, however, such usage remains on the horizon and China will remain a major importer for the foreseeable future.

Need for change

There are still problems with the variety of feed products available in China. An obvious problem is that many feed producers still only offer mixed feed and feedstuffs, only rarely producing concentrated feeds, premixes or feed additives. This leads to lower efficiency in animal production.

However, this is a two-way street, and the current structure of China's livestock production does not encourage the feed industry to alter its product offer. In China, pigs consume 40% of all feed products, while poultry accounts for 43%, cattle and sheep account for the remainder. This division of demand for feed in China needs to be compared with average global feed consumption, whereby pigs account for 31%, poultry for 17%, and cattle 26%.

Looking ahead to changes in the

Chinese feed industry, by mid-decade, 30% of the feed companies currently operating will no longer exist. According to domestically-produced statistics, in 2009 there were 12,291 feedstuff processors in the country, down by 9.7% on the year before. This trend is expected to continue as livestock operations increase in scale and margins for feed producers become tighter.

As the industry's need for capital increases, more companies are expected to become listed, and this is expected to lead to consolidation. Additionally, as the Chinese feed ingredient market becomes integrated into the global market, domestic producers are expected to see their costs go up. Within five years, China's producers could be facing costs similar to those of western operators.

As China's overall economy grows rapidly, it is starting to seek overseas markets for its capital, technology and products. Some major Chinese enterprises have already entered the global market, for example, the New Hope Group, which has made progress in Vietnam and some other neighbouring countries. Countries such as Vietnam, Laos, Cambodia, Burma, North Korea and Kazakhstan would seem to be relatively appealing markets for China's producers, however, despite their larger markets, India, Russia, South Korea and Japan, are seen as currently having market access levels that are too high. ▶

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Brazilian feed industry faces uncertain outlook

While the fortunes of the Brazilian feed industry may have improved since 2009, there are still difficulties on the horizon.

While the outlook for the Brazilian feed sector this year remains uncertain, the industry has started the year with a degree of optimism. Last year saw the feed industry return to positive territory, following the contraction of 2009.

Various factors are expected to impact the Brazilian producers this over the coming years, reports the country's feed industry association SINDIRAÇÕES. Amongst these are fears over La Niña delaying soya harvests in Brazil and Argentina, the strong appetite of China, which will become a major corn importer, and predictions of an explosion in the world's population and consequent increase in demand for foodstuffs. SINDIRAÇÕES also points out that agricultural markets will continue to suffer instability as a result of renewed interest in commodities due to a glut in global liquidity, the expansionist monetary policy of the US and inflationary signals from China.

The outlook for the Brazilian feed industry will also depend largely on the fortunes of poultry and pig producers, which in turn are influenced by the state of export markets, particularly as

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consumption levels on the home market are now close to those of developed countries.

"The risk is that the animal feed sector will continue under pressure and this could result in enough disequilibrium in the market to damage the other links in the production chain, some sooner, others later, because of static levels of meat purchases," says Ariovaldo Zani, CEO of SINDIRAÇÕES.

He underlines that the feed sector is affected by the income and decisions of consumers and their consequent demand for meat, and that purchasing is constantly tested at retail level.

Although the outlook for 2011 looks uncertain, production of animal feed in Brazil in 2010 is thought to have been higher. This is in contrast to 2009, when total production contracted to 58.4 million tons in response to global financial crisis.

Reporting in December, SINDIRAÇÕES notes that, between January and November, output stood at 55 million tons, and that, to the year end, output is thought to have reached 61 million tons, worth some US\$16 billion. In addition, 2 million tons of mineral salts were produced with a value of US\$1.1 billion.

Cereal and oilseed producers suffered great losses over the first six months of the year; however, over the second half the year, the main feed ingredients, soya bran and corn, underwent a price corrections of 25% and 40%, respectively.

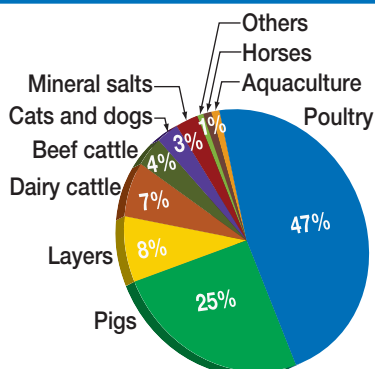


Broilers

Feed for broilers and layers is the largest sector of the various categories of animal feed produced in Brazil and accounts for 47% of the total. Producers entered 2010 with optimism that the year would see continued growth in demand for poultry feed, and 2010 is thought to have ended with broiler feed output 5% higher at over 29 million tons.

SINDIRAÇÕES notes that Brazil's over-valued currency acted as a drag on the amount of chicken exported which, to November, increased by only 6%. It continues that the profitability of the broiler industry was compromised by the cost of feed, which rose significantly. The price of chicken stayed firm, while the price of beef showed no signs of weakening. Per capita consumption for chicken meat is

► **Estimated feed consumption by species 2010**



Feed for poultry continues to dominate the market, although its market share declined last year.

thought to have stood at 42 kg in 2010, while total output is estimated at 12 million tons.



Layers

Feed for laying hens is estimated to have been in excess of 4.8 million tons during 2010. Although the price of eggs recovered during the second half of the year, high prices for corn and soya reduced profitability in the sector.



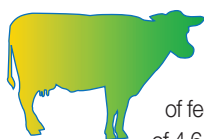
Pigs

Although exports of pig meat rose by 11% over the period January to November, consumption of feed by the pig industry during 2010 reached only 15.4 million tons. Production of pig feed now accounts for 25% of the country's feed output.



Beef cattle

2010 is thought to have compensated for the losses recorded by producers of beef cattle feed in 2009. Output is thought to have stood at a little over 2.5 million tons – an increase of 7%. From June onwards, there was an improvement in the prices of cattle for fattening, however it remained below the ideal.



Dairy cattle

Despite estimated production of feed for dairy cattle of 4.6 million tons, an increase of 5%, this was insufficient to make up for the losses that occurred in 2009. The behavior of milk prices was atypical and fell in the off-season, despite lower production and an increase in imports of dairy products. The long season resulted in the availability of low-quality pasture meaning that dairy farmers made greater use of feed and concentrates; prices of which rose because of the high cost of corn and soya, further impacting the performance of the country's dairy farmers.



Cats and dogs

At a little over 2 million tons, production of pet food in Brazil expanded by 8% last year. Rising income levels and growing consumer confidence have contributed to the strength of this sector; however, Sindirações notes that, despite the industry having the capacity to produce more pet food, still only 45% of the population feeds cats and dogs with manufactured pet food.



Aquaculture

Like pet food, aquafeed still only accounts for 1% of total feed consumed in Brazil, yet is growing significantly.

Demand for aquafeed is estimated to have reached 354,000 tons last year, an increase of 15%. Feed for shrimps is thought to have expanded by 2.5% and to have reached 82 million tons. Per capita consumption of aquatic species stands at 7 kg in Brazil and aquaculture accounts for 25% of the 1.2 million tons of fish, crustaceans, mollusks and other aquatic organisms consumed each year.

Brazilian aquaculture production could reach 10 million tons annually, given the country's favourable climate, availability of fresh water, the extent of the coastline and its millions of hectares of lakes and reservoirs. The gradual expansion of aquaculture should help to compensate for the decline in sea stocks, notes Sindirações. ◀


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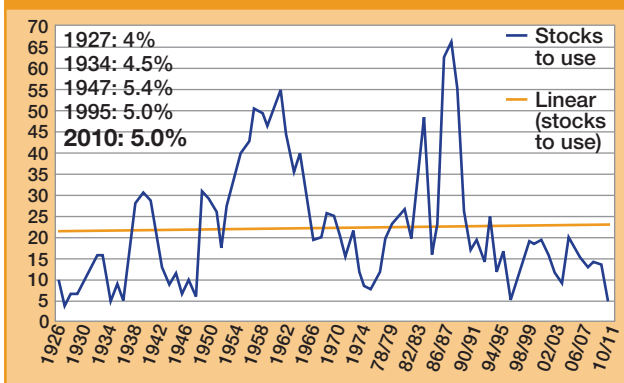
Feed ingredient forecast for 2011

Ethanol production, feed consumption are having a big impact on the market.



WEB ONLY:
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CHART 1: US corn stocks to usage ratio (1926 - 2010)



The US corn stocks to usage ratio is currently at a low point -- a historically rare occurrence, even as far back as 1926.

Current consumption of US corn and soybeans is a great deal higher than industry analysts expected, according to Tim Brusnahan, vice president of Brock and Associates, speaking at the recent WATT Online Animal Forum: Feeding the Globe. The production of ethanol, together with several other factors, appears to be at the heart of current fluctuations in the feed ingredients market.

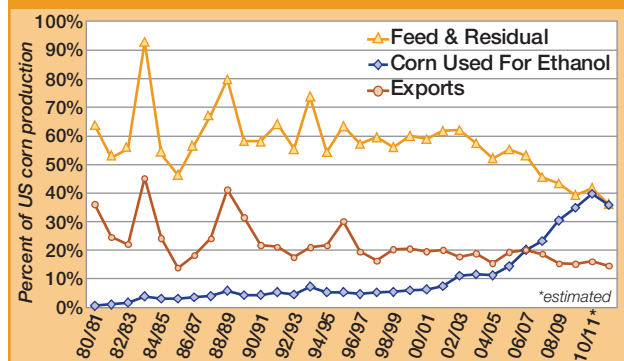
Planting intentions for 2011

Referencing the recently released USDA report on 2011 planting intentions, Brusnahan noted that of the eight major crops there was an overall increase of 8.6 million acres planted versus last year. Corn plantings came in at 92.2 million acres versus a pre-trade estimate of 91.8 million acres. On the soybean side, acreage expected came in slightly less than the pre-trade market had planned on, and wheat as a whole came in slightly higher, with the exception of durum wheat, which came in slightly lower.

USDA grain stocks report

The recent USDA grain stocks report was also cause for a good deal of concern in the industry. As of March 1, the amount of corn remaining in the US from last year's harvest is 6.52 billion bushels. This is 1.2 billion bushels behind last year and below pre-

CHART 2: Percent of U.S. corn production utilized for exports, ethanol, & feed



Since 2002, corn used for ethanol has steadily increased while corn used for feed and residual has steadily decreased.

trade estimates of 6.69 billion bushels. In addition, soybeans are at 1.248 billion bushels, which is 22 million bushels less than last year and below pre-trade estimates of 1.3 billion bushels. Consumption of corn was at an all-time high this past quarter and soybean consumption was near an all-time high.

Corn futures prices are currently around \$7.00 in the nearby contract, which is representative of the 2010 crop year. This is far above the \$5.50 to \$6.00 level, which is a more typical value for the stock. As a result, based on the current market conditions, Brusnahan's firm is predicting that crop prices for corn will continue to be volatile for another year and a half.

Corn usage

Brusnahan noted that the current stock to usage ratio for corn is at five percent as a result of ethanol production and feed consumption. From an historical point of view, a five percent usage ratio is very low, even if one looks as far back as 1926. Not surprisingly, this low usage ratio is causing worldwide concern. In addition, Brusnahan noted that getting back to a usage rate in the 20 percent range is highly unlikely. He said he believed that a ratio in the 10 percent range was far more possible if farmers can get in a really good crop this year.

Ethanol industry

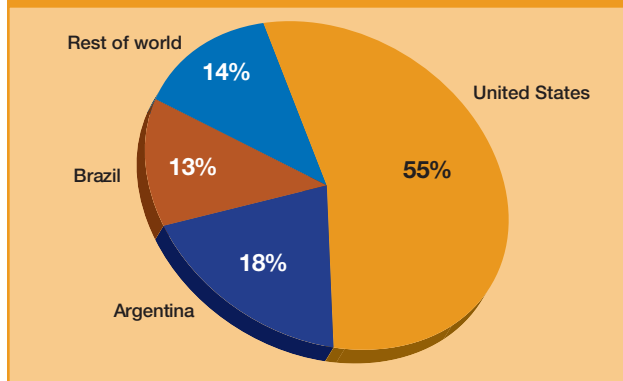
Corn quality for the production of ethanol was very strong in the second half of 2010, which resulted in a close correlation between corn and ethanol prices. Profitability for ethanol producers has been very good in the last six months and the ethanol industry is running at almost 100 percent capacity.

Exports have also become an important part of the ethanol equation. Demand from the EU has been strong, and demand from Brazil has been particularly strong because sugar prices there have become too high. In addition, demand for DDGS is increasing. Some DDGS is being exported, though the majority of it is being consumed in the US. It should be noted that there was a brief spike in demand for DDGS from China in mid-2010, but that has currently tapered off. In addition, US pork producers are beginning to use DDGS because of the high price of corn.

Global supply and demand

Brusnahan noted that while the supply of corn worldwide has tightened, we are in no way running out. Globally, we have a 15 percent stock to usage ratio. He did point out that since the US is the primary producer of corn, if US production declines it will have a global impact. He also noted that while China's imports and exports have been inactive the last few years, their corn supplies are low. He said if the US were to have a particularly good corn crop it would not be a surprise to


CHART 3: Share of 2010/11 world corn exports



Since the US exports the majority of the world's corn, any major problems with a US crop has the potential to impact the globe.

see China import some of it.

World soybean demand has been relatively stable, when taken as a whole. Soybean exports have been running steady, with the majority going to China.

Supplies of wheat look fairly good. US supplies are "fairly adequate," and globally there will most likely be some improvement, as it is unlikely that the US, Canada, Europe and Russia will all have a bad crop year at the same time. 

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[FeatureStory by Ken Jennison]

US corn consumption raises concerns

Ethanol production, feed consumption are having a big impact on the market

Current consumption of U.S. corn and soybeans is a great deal higher than industry analysts expected, according to Tim Brusnahan, vice president of Brock and Associates, speaking at the recent WATT Online Animal Forum: Feeding the Globe. The production of ethanol, together with several other factors, appears to be at the heart of current fluctuations in the feed ingredients market and as a result, in the livestock markets as well.

Planting intentions for 2011

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increase of 8.6 million acres planted versus last year. Corn plantings came in at 92.2 million acres versus a pre-trade estimate of 91.8 million acres. On the soybean side, acreage expected came in slightly less than the pre-trade market had planned on, and wheat as a whole came in slightly higher, with the exception of durum wheat which came in slightly lower.

USDA grain stocks report

The recent USDA grain stocks report was also cause for a good deal of concern in the industry. As of March 1 the amount of corn remaining in the U.S. from last year's harvest is 6.52 billion bushels. This is 1.2 billion bushels

To hear and view Tim Brusnahan's presentation in its entirety, go to

www.WATTAgNet.com/ondemandwebinars.aspx to access the archive of the webinar.

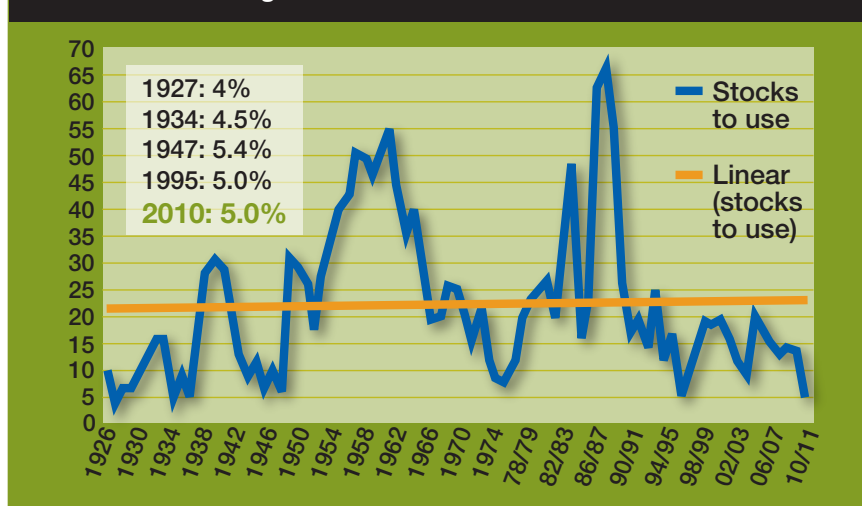
behind last year and below pre-trade estimates of 6.69 billion bushels. In addition, soybeans are at 1.248 billion bushels, which is 22 million bushels less than last year and below pre-trade estimates of 1.3 billion bushels. Consumption of corn was at an all-time high this past quarter and soybean consumption was near an all-time high.

Corn futures prices are currently around \$7.00 in the nearby contract, which is representative of the 2010 crop year. This is far above the \$5.50 to \$6.00 level which is a more typical value for the stock. As a result, based on the current market conditions, Brusnahan's firm is predicting that crop prices for corn will continue to be volatile for another year and a half.

Corn usage

Brusnahan noted that the current

US corn stocks to usage ratio (1926 - 2010)



Only twice - in 1927 and 1934 - has the U.S. corn stocks-to-usage ratio been lower than it is now. It was equaled in 1995, but quickly shot back up.

stock-to-usage ratio for corn is at 5% as a result of ethanol production and feed consumption. A 5% usage ratio is, when one looks back as far as 1926, close to one of its lowest points. This low usage ratio is causing worldwide concern. Brusnahan noted that getting back to a usage rate above the 20% range is highly unlikely. He said he believed that a ratio in the 10% range was far more possible if farmers could get in a really good crop this year.

Ethanol industry

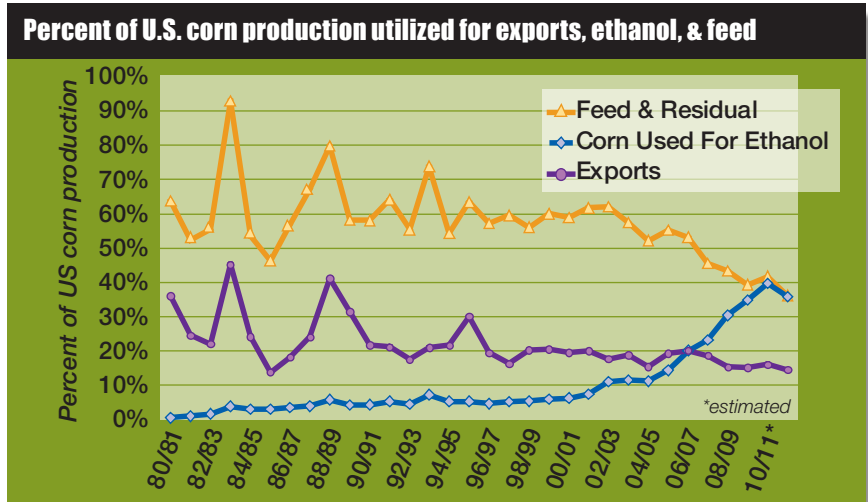
Corn quality for the production of ethanol was very strong in the second half of 2010, which resulted in a close correlation between corn and ethanol prices. Profitability for ethanol producers has been very good in the last six months, and the ethanol industry is running at almost 100% capacity.

Exports have also become an important part of the ethanol equation. Demand from the European Union has been strong. Demand from Brazil has been particularly strong because sugar prices there have become too high. In addition, demand for DDGS is increasing. Some DDGS is being exported, though the majority of it is being consumed in the U.S. It should be noted that there was a brief spike in demand for DDGS from China in mid-2010, but that has currently tapered off. In addition, U.S. pork producers are beginning to use DDGS because of the high price of corn.

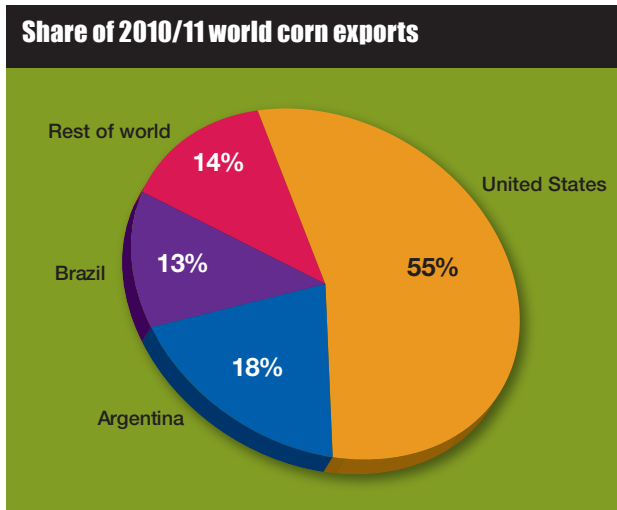
Global supply and demand

Brusnahan noted that while the supply of corn worldwide has tightened, we are in no way running out. Globally, we have a 15% stock-to-usage ratio. He did point out that since the U.S. is the primary producer of corn, if U.S. production declines it will have a global impact. He also noted that while China's imports and exports have been inactive the last few years, their corn supplies are low. He said if the U.S. were to have

US corn consumption raises concerns



Since 2002, corn used for ethanol has steadily increased while corn used for feed and residual has steadily decreased.



Since the U.S. exports the majority of the world's corn, any major problems with a U.S. crop have the potential to impact the globe.

a particularly good corn crop it would not be a surprise to see China import some of it.

World soybean demand has been relatively stable, when taken as a whole. Soybean exports have been running steady, with the majority going to China.

Supplies of wheat look fairly good. U.S. supplies are "fairly adequate," and globally there will most likely be some improvement, as it is unlikely that the U.S., Canada, Europe and Russia will all have a bad crop year at the same

time.

Livestock

The livestock industry has had a difficult challenge over the last four years in the U.S., and many markets have adjusted as a result of the higher cost of feed, Brusnahan observed. Right now pork and beef seem to be doing the best, and the poultry and dairy industries seem to be having a more difficult time. There are 9.2 million dairy cows in the U.S., and a large percentage of those facilities are totally dependent on buying feed for milk production, particularly in western states where producers are unable to offset feed costs by growing the crops themselves.

Pricewise, cattle and swine production have been doing the best. The egg industry has been volatile for a number of reasons. Pork supplies are, for the most part, stable. Per capita meat consumption has also been fairly stable. After experiencing a drop in consumption, the poultry industry is beginning to see more consumption, largely because of higher prices for pork and beef.

Pork exports have been "phenomenal," Brusnahan said, and this is fueling the current high prices for pork. Exports to China and Japan have been

a huge benefit for U.S. pork producers as pork is a major meat protein for China, and China consumes approximately half of all pork produced in the world. This is also helping drive the demand for U.S. soybeans as a feed source for pork.

Right now beef inventory is low, but beef margins have been relatively good. This has helped dairy producers; as they cull their herds they are able to return a favorable cash flow to their operations as they replace their dairy cows with fresh heifers. However, Brusnahan noted that cattle and cow calf producers nationwide have been facing a difficult decision in whether to use existing acreage for crops or for pasture, given the high price of corn. This could be in part what is fueling high beef prices.

Poultry

While the broiler market has recovered, it is not highly profitable, and most



The amount of corn remaining in the U.S. from last year's harvest is 6.52 billion bushels, as of March 1. This amount is 1.2 billion bushels behind last year.

returns in January and February were negative. Going forward there should be improvement in March's numbers for most U.S. poultry companies. Within the global arena the U.S. is a large consumer of broilers, so this has helped stabilize the overall sector. Russia has recently begun importing fewer U.S. broilers, and while this does not appear to be having a significant impact at this point, it is definitely an area of concern for U.S. producers.

Summary

Corn and soybean March 1 stocks numbers were lower than industry analysts expected. The first statistical data point for 2011 corn supplies was dramatically bullish, which means that not enough acres were planted. Since July 2010 there is no evidence to date of supply rationing, and corn and soybean prices will now likely stay strong into late June/early July.

(IFM)

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DuPont sues Monsanto over alleged corn patent infringement
DuPont's Pioneer seed unit has sued Monsanto Co., claiming the company has infringed on patents that help genetically modified corn seeds germinate. In its lawsuit, filed in United States District Court for the Southern District of Iowa, Pioneer Hi-Bred International claims that it owns patents on a method "of enhancing the vigor of maize seeds" by defolating the plant at a particular point after pollination but before harvest, and on a maize seed and stand of maize seeds that have such enhanced vigor.

US accounts for 20% of global
The U.S. accounts for 20% of global soybean harvests for some bushels per acre above 2010 season that included heavy that broke record highs. Slightly above 2010 in spite

Illinois soy corn yields better
Soybean harvests for some bushels per acre above 2010 season that included heavy that broke record highs. Slightly above 2010 in spite

BLOG: Can you legislate eat

states at the Standing Com and has been sent on to the according to reports. The re 2010 and January 2011 dido egg and meat sales from 4, was found, (boxes on four)

Argentina soybean animal fe
Roughly 15,000 metric tons confiscated by the Cyprus A salmonella contamination, a contacted farmers and mills infected loads, and seconda mbal results.

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eurofins Experts in Feed Safety Audits and Pre-Assessments

Brazilian feed industry grows 4% during first half 2011
The production of the animal feed industry in Brazil registered an increase of 4.1% over the first half of 2010 and produced 31.4 million metric tons from January to June 2011, according to Sindragães. "The driving force once again was the industrial poultry sector which required nearly half of all production of the semester, despite the fact that principal raw material used in animal feed, corn, has appreciated 60 % since June of last year," said Dr. Anivaldo Zan, CEO of the Brazilian Feed Industry Association.

US corn stocks down, soybeans up from 2010 numbers
Old crop corn stocks on September 1 totaled 1.13 billion bushels, down 34% from the same time in 2010, according to the U.S. Department of Agriculture. Of the total corn stocks, 315 million bushels are stored on farms, down 35% from a year earlier.

BLOG: Is fashion affecting the food chain?
There are two hot topics currently on the European commission and parliament agendas: medicated feed and the return of animal proteins in formulations for poultry, swine and fish under the curtain of the feed ban, a heritage from the mad cow years. Although experts say the security of protein production is certain, the social acceptance of this return has elicited a mixed reaction from the different member states.

UK 2011 wheat, winter barley harvests down
UK wheat production for the current harvest year is estimated at around 14.67 million metric tons, down on the five-year average by 1.5%, with plantings up 3.5%, according to an NFU survey. Winter barley production is estimated at 2.079 million metric tons, down 18.6%, with plantings down 10.3%.

Dioxin Farm Bureau study assesses farmland flooding losses
Flooding along the Missouri River in 2011 is estimated to have caused at least \$207 million in damages to crops and related economic activities in six western Iowa counties that border the river, according to a recently released study commissioned by the Iowa Farm Bureau Federation. The study analyzed the direct and indirect economic impacts from crop losses due to flooded fields in six Iowa counties, as well as lost wages and other impacts that would not occur because of lost crop income, said

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Drought, shortages strain Russian feed industry

Russia's expanding domestic meat industries may stimulate compound feed and ingredients imports in 2011.

Russia will experience feed shortages during 2011 due to the severe drought in the Central, Volga and Ural districts in 2010, according to the US Department of

Agriculture's Foreign Agriculture Service. In 2010, grain production dropped by more than 30% to 60 million metric tons. Pea-type crops, meals of oilseeds

and products of sugar refining are not available to supplement grain rations, because these crops also were affected by drought.

The Russian government has emergency measures in place to provide livestock and poultry farms with feeds this year, including distribution of grain from government stocks. However, these measures are not a cure for Russia's inefficient feed industry.

Compound feed production

Russian compound feed production in 2009 is estimated at 14.7 million MT, however, trade sources estimate that actual feed production varies from 23-24 million MT. The reason for this discrepancy is that most poultry and pork facilities operate their own feedlots and feed production for internal use is not recorded.

The 2012 production forecast calls for an increase of feed pre-starters up to 1.2 million MT. The grain component in pre-starters is 55% barley and wheat. Currently, the production volume of pre-starters in total compound feed production is insignificant and estimated at 211,000 MT, with local demand estimated at 750,000 MT.

Total feed production

According to Russian figures, 2009 total feed production increased by 9% from 2008 levels and is estimated at 14.7 million MT. Production also increased during January to June of 2010 and is estimated at 11.4 million MT, 9% up from the same period in 2009.

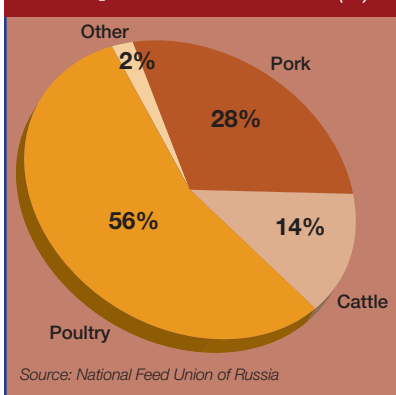
FIGURE 1: Calculated raw material needs for Russian compound feed production 2008-2009 (1,000 MT)

Raw Material	2008	2009 (est.)
Wheat	10,152.58	10,752.56
Barley	8,293.10	8,735.62
Corn	5,473.57	5,957.80
Oats	2,798.88	2,913.00
Rye	426.00	466.62
Total feed grains	27,144.13	28,825.6
Peas	1,922.99	2,009.98
Soybeans	258.18	282.80
Vetch	90.36	98.98
Chick-peas	77.45	84.84
Total legumes	2,348.98	2,476.60
TOTAL FEED GRAINS and LEGUMES	29,493.11	31,302.20
Bran	3,610.90	3,722.00
Soybean meal	2,998.00	3,244.40
Sunflower meal	3,367.63	3,459.46
Fish meal	455.97	505.60
Yeast	495.84	510.94
Meat and bone meal	185.62	195.16
Molasses	465.00	459.60
Sunflower oil	291.00	318.40
Limestone	426.30	441.00
Other (including premixes, salt, calcined phosphate etc.)	1,169.63	1,221.24
TOTAL	42,959	45,380

Source: National Program for the Development of Feed Production in Russia in 2010-2012

Demand for feed in Russia is expected to grow as its food security doctrine plans for self-sufficiency in poultry, meat and dairy production by 2020. Imports of compound feeds, and especially feed ingredients, might continue and even expand after Russia's domestic grain production recovers in 2011-2012.

FIGURE 2: Production structure of compound feeds in 2009 (%)



Between 2007 and 2009, compound feeds production increased 10% to 15% because of the construction of new poultry and pork facilities. Despite this increase in compound feeds production, the level is still lower than 50 million MT as reported by Russian statistics in the 1990s.

An average of 28-33 million MT of grain is used for feed production, according to the National Feed Union. The percentage of grain in total compound feed production is more than 70%.

Experts estimate demand for concentrated feeds will increase 30% to 35% with intensive cattle breeding, rising imports of breeding cattle and milk production.

Russian feed mill capacity could grow to 37 million MT annually, according to the National Feed Union. The union believes that the main obstacles to efficient development of local capacities are attributed to a lack of government support and high demand for protein components, such as corn, soybean and peas.

Consumption

Poultry's share of compound feed consumption is set to grow from 31% to 34% between 2009 and 2012. Poultry producers currently produce or manufacture 70% of their own feed demands, but some do purchase grain and other feed components.

Beef production continues to be the least-produced animal protein sector in Russia. In the short-term, economic

returns will be eroded by high feed costs causing the cattle inventory to undergo further challenges. The shrinking dairy cow herd continues to be the leading long-term indicator of beef production. Therefore, inventory and production expectations for 2011 remain similar to 2010 as feed shortages will present financial

challenges for producers to maintain inventory.

Trade opportunities

The Russian feed industry is heavily dependent on imports of chemical substances and vitamins for feed production. These imports increased from \$250

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Market data
The statistics on this page are collected from various USDA reports and assembled here for easy reference and viewing. Data is updated as soon as possible after it is published. Frequency of the data and update times are listed with each chart.

Grain prices

EXPORT	PRICE (\$bu)	CHANGE (\$bu)	BASIS	CHANGE
Chicago - GX_OR110				
Corn	8.2425 - 6.3925	+17.25 - +7.25	-30.00 Z to -15.00 Z	+10.00 to UNCH
Soybeans	11.8950 - 11.7750	-13.00 - -10.00	-33.00 F to -25.00 F	No Comp
SRW	6.2000 - 6.2500	+6.75	-10.00 Z to -5.00 Z	+5.00

Source: AMS news service, USDA, updated daily, 10 a.m. CST

Grain futures

FUTURES	PRICE	CHANGE	PRICE	CHANGE
CME Group				
Corn	Z Dec 11 8.5425	+7.25 H	Mar 12 8.6525	+8.25
Soybeans	X Nov 11 11.9225	-15.25 F	Jan 12 12.0250	-14.75
Wheat (SRW)	Z Dec 11 6.3000	+1.75 H	Mar 12 6.6575	+1.25
Oats	Z Dec 11 3.3500	+0.50 H	Mar 12 3.4450	-0.50

Source: AMS News Service, USDA, updated daily, 10 a.m. CST

Broiler-type eggs set

Broiler-type chicks placed

Russian feed industry

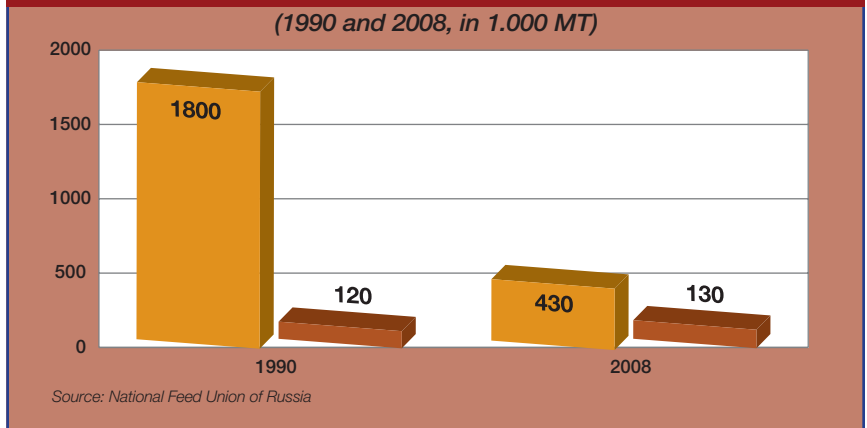
million in 2008 to \$300 million in 2009. The outlook for 2010 calls for a further increase in imports of vitamins for feeds as the result of the lack of production facilities for domestic chemical production.

Currently, 30% of feed facilities are able to compete with foreign suppliers; others require renovation and modernization. Russia's production of bio chemicals, amino acids and vitamins is largely insignificant, as the industry hasn't been operating efficiently in recent decades.

European and US suppliers have the opportunity to export amino acids and lysine to Russia because domestic production is very low. Potential shipments may include lysine, methionine and tryptophane.

According to the National Feed Union, there is one facility in Russia that produces lysine. Approximately 70% of its shares

FIGURE 3: Production of protein mineral concentrates and premixes (1990 and 2008, in 1,000 MT)



According to the National Feed Union, Russia's current demand for feeds is 40 to 45 million MT annually; demand for biological vitamin additives is 1.5 million MT and 400,000 MT for premixes. The share of full ration feed in the total feed production is 55%.

belong to the Chinese, and as a result, high-quality natural lysine is exported to China despite demand in Russia remain-

ing high. Russia imports almost 100% of lower-quality synthetic lysine needs, according to the head of the feed union. ◀

Constraints in developing the Russian feed sector

Industry sources have said that implementing the "Program for the Development of Feed Production in Russia 2010-2012" could improve the industry as the program calls for an increase in feed production of 4 million MT by the end of 2012. The four major constraints for efficient development of the Russian feed sector include:

- ▶ Lack of proper balance in protein and amino acids in feed for cattle, poultry and fish;
- ▶ Insufficient domestic production of oilseeds, corn and soybean meal and major sources of proteins;

- ▶ Lack of government support measures, including financial, aimed at stimulating production of corn, rapeseed and soybeans;
- ▶ Lack of incentives for businesses to use new technologies for feed sector development, such as using agricultural wastes for substitution of higher -cost components with corn gluten, molasses and dried beet chips. For example, Russia produces 12,000 MT of beet pulps annually, plus 1.3 million MT of brewing waste and 500,000 MT of DDGS. According to analysts, this could have substituted 2.5 million MT of fodder grain annually.

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Vietnam animal feed producer expanding business, focuses on safety

With a successful first 20 years under its belt and a significant feed portfolio, the company is looking to further expansion.

Despite the Vietnamese economy having to cope with inflation, the country's live-stock sector is booming. One of the oldest feed companies in the country, Proconco, recently celebrated its 20th birthday, and is recognised throughout the industry by its Stork logo. The company was set up in 1991 as a joint venture between the French and Vietnamese governments but, since 2008, Proconco has changed from a joint venture to a joint-stock company where the Vietnamese hold 60% and foreign investors 40% of the shares.

A growing company

The company originally aimed to produce 20,000 tons of feed annually, but today has an output of 1.2 million tons per annum; with a payroll of 1,400 employees, and with university graduates making up 20% of employee numbers, it ranks number 35 in the top-50 feed mills worldwide.

Ta Van Hung is Proconco's vice general director and is proud of his company's recent achievements. In 2010, at the trade event Victam in Bangkok, Proconco was acclaimed Asian Feed magazine's "Feed Miller of the Year." This was followed by an



Annually, Proconco today produces 1.2 million tons of feed.

equally prestigious award presented by the organisers of the Vietstock Livestock show in November 2010.

The company has four mills, the biggest being near Ho Chi Minh City. There is also a mill in Hanoi, a third in Haiphong and a fourth located in the Mekong Delta.

Hung explains: "We also have seven warehouses and plan to open another two to four new feed mills in the next five years. We produce over 100 different formulations for swine, dairy cattle, broilers, layers, ducks and quail, along with shrimp, tilapia and catfish feeds.

"The milling equipment is American and European, and feed is sold in varying bag sizes, ranging from 2kg and 5kg for backyard producers and 25kg to 40kg for commercial enterprises. Pellets, mash and meal are produced, and Proconco also offers a range of quality concentrates and finished feeds."

As far as ingredients are concerned,

80% have to be imported. Corn and soya-bean meal are imported from the U.S. and India, and local fishmeal is used along with some from Peru. Cassava is an interesting raw material, with the best quality going into feed and the poorer grades going into biofuel production. Increasingly, the animal feed industry is having to compete with the bioenergy industry for raw materials. Plenty of DDGS is available, as a major byproduct of bioethanol production, but Hung pointed out the quality of DDGS can be variable, and the key factor is to stick with reputable suppliers who can consistently supply top-quality DDGS.

Producing safe feed

Proconco was one of the first feed manufacturers to recognise the problems associated with mycotoxins and ensures that mycotoxins in feeds are at safe levels.

"Today everyone knows that [mycotox-



This distinctive stork logo identifies Proconco throughout the feed industry.

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To learn more about the Asian feed industry, read: Growth and change in the Chinese feed market at

www.WATTAgNet.com/20460.html

ins] are a big problem having serious effects on animal performance,” says Hung.

“Proconco feels that it has a responsibility to the consumer as well as to the farmer. Meat, milk, eggs and fish need to be healthy and wholesome, and we have to take a lead in these matters.”

Hung explained how, throughout the world, zinc oxide in high concentrations is being used in pig diets to stop post-weaning scours. However, most of the zinc ends up in the manure and, eventually, in the soil, where it is taken up by crops.

Stuart Lumb is a UK-based freelance writer. He can be contacted at: Stuart@Lumb.karoo.co.uk

Proconco is looking to other, more natural ways of controlling gut disorders.

“Antibiotics are allowed in diets, and this practice is resulting in antibiotic resistance occurring in humans. With only a limited number of antibiotics, ultimately, humans might end up with diseases that are totally resistant to all antibiotics, resulting in

fatalities,” says Hung.

The company is trialing probiotics and other ‘green’ growth promoters.

“We are looking to develop our products to suit today’s consumer needs. Meat, eggs, fish and milk have not only to be nutritious, but have to be green, safe and environmentally friendly.”

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