2017 ALLTECH GLOBAL FEED SURVEY

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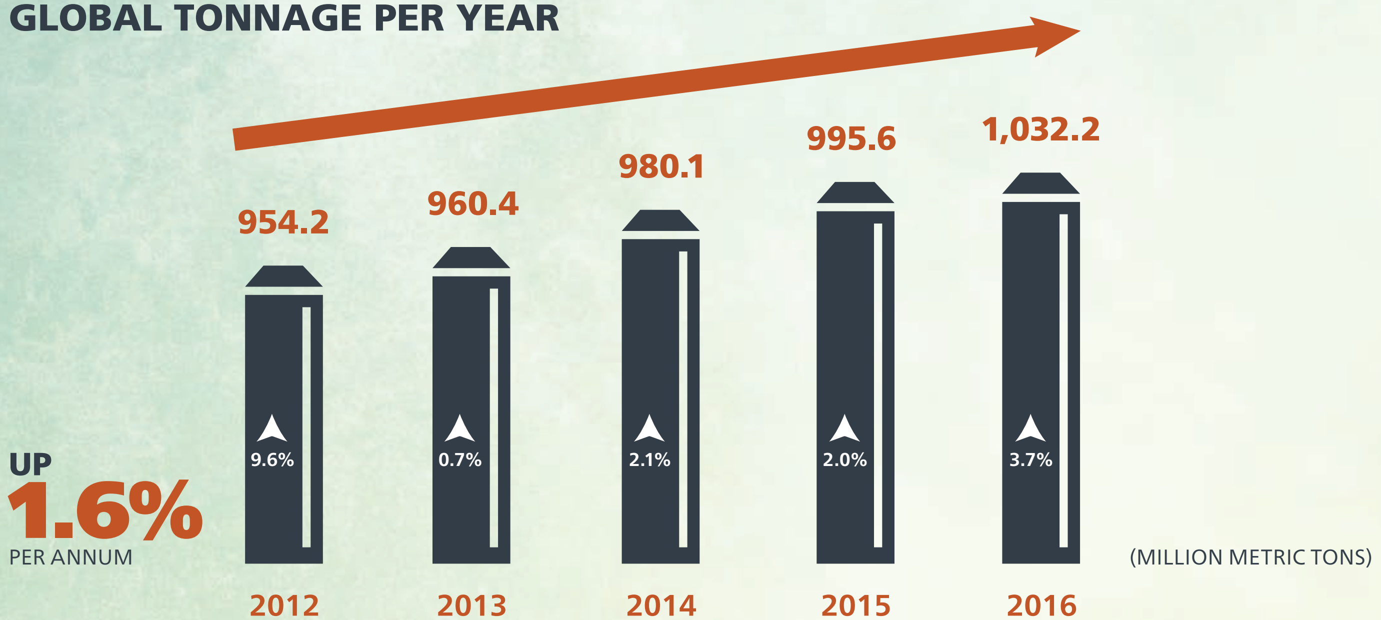
2017 GLOBAL FEED SURVEY

2016		2015
TOTAL GLOBAL TONNAGE (MM) **1,032.2**	**+3.7%**	TOTAL GLOBAL TONNAGE (MM) **995.6**
NUMBER OF FEED MILLS GLOBALLY **30,090**	**-7%**	NUMBER OF FEED MILLS GLOBALLY **32,341**

GLOBAL TONNAGE PER YEAR



PRODUCTION EXCEEDS 1 BILLION METRIC TONS FOR FIRST TIME EVER

For the first time, this year's survey estimates global feed production at over 1 billion tons of feed. Since the Alltech Global Feed Survey debuted six years ago, the feed industry has seen an increase in production of 161 million metric tons, a growth of 19% (or 2.95% per annum). As the world population continues to rise, it will be fascinating to see over the course of the next four years what the feed industry looks like in 2020 and indeed in 2050, when the expected population should surpass 9 billion.

The survey has become more comprehensive than ever, as it now includes data from 141 countries. With information from over 30,000 feed mills, this is the most complete and extensive evaluation of the state of animal feed production and consumption available today. Each year, the survey gains deeper insight into the industry, therefore making the analysis more thorough and robust than ever before.

Although annual feed production was up 3.7%, this was achieved with 7% fewer feed mills. This trend has been most notable in the largest producing country, China, which has seen tremendous consolidation of feed mills in recent years and this year reported a nearly 30% decline in feed mills. Other smaller producing countries have also seen a decrease in mill numbers, particularly in the Asia-Pacific region, such as India, South Korea and Vietnam, which are reporting reductions of 39%, 18% and 13%, respectively. Overall, the combination of increased production from a decreased number of mills reflects a continued consolidation of agricultural production, in spite of the continued growth in animal protein consumption. Increased production of meat, milk and eggs is also being achieved through fewer producers as farms integrate and feed efficiencies increase.

REGIONAL HIGHLIGHTS

Over the last five years, **Africa** has been the fastest-growing region; this year's growth was over 13%. Half of the countries grew strongly, and only a handful actually had lower reduction in production. Shining stars for the region include Nigeria, Algeria, Tunisia, Kenya and Zambia, all of which saw growth of at least 30%. Africa is one of the more difficult regions from which to obtain information; nonetheless, there were a few new countries added to this year's survey. It is worth noting that the region still lags in penetration of feed per capita (feed produced per person), reflecting a poorly developed animal protein sector. Nigeria's leadership within the region is indicative of population growth — expected to make it the fourth largest country in population by 2050 — and the related economic possibilities as it and other countries continue to demonstrate economic prosperity. Africa presents the greatest growth opportunity for the feed industry.

The **Asia-Pacific** region continues to lead in production, and its promising growth at nearly 5% indicates that it won't be surpassed any time soon. The largest producer, China, continues to contribute to the region's leading position, but up-and-coming countries, such as Vietnam and Pakistan, as well as consistent performers, such as India and Japan, will also reinforce the region's lead for the foreseeable future.

The **European region's** growth was on the smaller side at only 3.33%. Some of this slow growth can be attributed to the tumultuous year the European Union (EU) has seen with Brexit and the reform of agriculture subsidies. The major story within the European region is Spain. It now leads EU feed production at 31.9 million metric tons, an 8% increase from last year. This increase is significant given that the region as a whole grew by 3.36% compared to last year. Other major contributors within the region include Russia, Germany and France, all of which again made it to the top 10 list. Of notable mention is the reduction of feed production in the European dairy industry: Several leading countries saw noticeable decline, including Germany, France, Turkey and the Netherlands. Enough smaller producing countries, such as Ireland and Norway, saw healthy growth that somewhat mitigated this decline, and the overall result was a reduction of around 2 million metric tons.

Brazil continues to be the dominant player for the **Latin America** region. Mexico is gaining ground for 2016 and saw the most substantial growth in terms of tons for the region. This was particularly evident in the dairy and layer industries.

The **Middle East** saw the most significant growth of any region at over 16%. The survey extended its reach into this region somewhat and therefore was able to procure more robust numbers.

North America feed production remains relatively flat. The region continues to lead feed production in beef, turkey, pet and equine.

REGIONAL TOTALS

	2016 Total Tonnage	Total Mills	Average Regional Growth
Africa	39.5	2081	13.2%
Asia Pacific	367.6	11,214	4.9%
Europe	249.4	5,307	3.4%
Latin America	157.5	4,287	4.0%
Middle East	27.1	732	16.7%
North America	191.1	6,470	-1.5%
Total	1,032.2	30,090	

(MILLION METRIC TONS)

COUNTRY HIGHLIGHTS

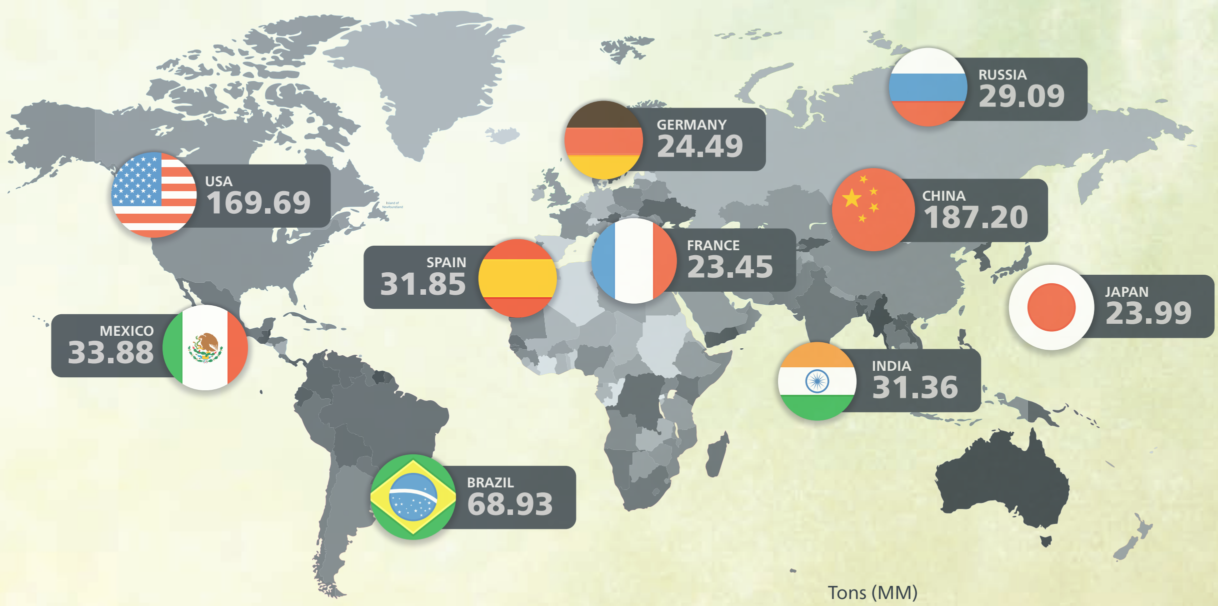
The combined production of China and the U.S. is over one-third of global production (35%). These two countries have been the top two in feed production since the first survey in 2011, but how do the two compare? Here's a quick analysis of their production numbers:

(MILLION METRIC TONS)

	Pigs	Dairy	Beef	Layers	Broilers	Aquaculture
China	75.5	3.0	3.9	29.4	54.9	16.4
USA	41.6	23.3	24.8	12.6	48.0	1.0

The mills in the top 30 countries are responsible for producing 86% of all feed. These top 30 countries are home to 82% of all feed mills. This leaves the other 14% of production spread across 111 other countries, utilizing the other 18% of feed mills. The top 10 countries have half of the mills (56%) and account for 60% of all feed production, leaving 131 countries to produce 40% of feed with the remaining 44% of the feed mills.

TOP 10 HIGHLIGHTS



Tons (MM)

	Mills	2016
China	6000	187.20
USA	5970	169.69
Brazil	1554	68.93
Mexico	498	33.88
Spain	820	31.85

(MILLION METRIC TONS)

	Mills	2016
India	909	31.36
Russia	500	29.09
Germany	330	24.49
Japan	115	23.99
France	300	23.45

(MILLION METRIC TONS)

SPECIES NUMBERS

FEED TONNAGE (MILLION METRIC TONS)

SWINE

	Pigs
Africa	2.1
Asia-Pacific	117.0
Europe	72.2
Latin America	30.3
Middle East	0.1
North America	50.6
Total	272.4

RUMINANTS

	Dairy	Beef	Calves	Other Ruminants
Africa	6.0	4.8	0.1	1.8
Asia-Pacific	22.4	16.6	1.0	0.8
Europe	37.7	21.6	4.5	8.6
Latin America	16.8	11.3	0.7	0.0
Middle East	6.0	1.7	0.2	2.9
North America	27.4	26.0	0.3	0.3
Total	116.4	82.0	8.3	14.4

POULTRY

	Layers	Broilers	Turkeys	Other Poultry
Africa	8.5	11.3	0.2	0.1
Asia-Pacific	66.1	105.9	0.2	2.6
Europe	28.8	47.5	5.7	3.5
Latin America	20.9	62.2	0.8	0.1
Middle East	5.5	9.2	0.3	0.2
North America	13.6	51.0	7.4	0.2
Total	143.3	287.1	14.6	6.6

OTHER SPECIES	Aqua	Pet	Equine	Others
Africa	1.6	0.4	0.2	0.1
Asia-Pacific	26.7	2.4	0.6	3.0
Europe	5.9	8.1	1.3	3.6
Latin America	3.6	5.2	2.0	1.5
Middle East	0.3	0.1	0.1	0.0
North America	1.8	8.8	3.7	0.2
Total	39.9	25.0	7.8	8.4

FEED COSTS REFLECT THE GLOBAL ECONOMY

In general, global feed prices are down when compared to last year's figures. As a result, so is the cost of raising production animals. From a global perspective, the feed industry can be roughly valued at around $460 billion dollars, although feed prices in general were 5–7% lower than the previous year. This represents a small increase over 2015, reflecting higher values attributed to the pet, equine and other businesses. Alltech roughly estimates that the pig sector represents 24%, ruminants about 20%, poultry at 36%, aquaculture and pets each about 9%, and horses and others each at about 1%.

AVERAGE GLOBAL FEED PRICES

PIGS

$355

-5%

LAYERS

$370

-7%

BROILERS

$422

-7%

This year marks the sixth anniversary of the Alltech Global Feed Survey, a yearly assessment of compound feed production. Data has been collected, analyzed and researched, representing more than 140 countries and combining information obtained in partnership with local feed associations and Alltech's sales team, who visited more than 30,000 feed mills.

CONTACT US

For more information on Alltech, or if you have comments on the 2017 Alltech Global Feed Survey, please contact us via e-mail at *info@alltech.com* with the subject line "2017 Alltech Global Feed Survey" or via mail at the address below.

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