7TH ANNUAL

Alltech® GLOBAL FEED SURVEY | 2018

第七屆奧特奇　全球飼料調查 | 2018

The global feed industry: Producing more than 1 billion metric tons
全球飼料產業：產量超過10億噸

Last year, the Alltech Global Feed Survey estimated world animal feed production at over 1 billion metric tons globally for the first time. This year, our estimates have confirmed that barrier has been crossed again, with a total of 1.07 billion tons of feed produced in 2017.

Now in its seventh year of analysis, the Alltech Global Feed Survey continues to be the most quoted reference on the state of the feed industry, with last year's survey data cited in more than 1,000 reports by the United Nations, industry market research companies, leading agricultural institutions and associations. The survey data not only give insights into the feed industry, but into the health of agriculture as a whole, and, to some degree, it reflects the strength of the individual economies of the countries included in the report.

The information becomes more robust and detailed every year, with new countries included this year, namely Cambodia, Laos, Fiji and Samoa, for a total of 144 countries. As our organization's global reach expands, it is Alltech's goal to have the survey grow in scope. We also intend to provide open and free access to this report for the purposes of demonstrating the importance of animal agriculture and the centrality of the feed industry in feeding the world of the future sustainably.

去年，奧特奇全球飼料調查報告估計全球動物飼料產量首次突破10億噸。今年，我們的估算已經確認2017年飼料總產量再次突破10億噸大關，達到10.7億噸。

今年是奧特奇全球飼料調查報告連續發布的第七年，並繼續成為反映飼料產業現狀的最權威報告之一。去年，該調查報告在聯合國、產業市場研究公司、業內領先的農業研究機構和協會發布的1000多份報告中得到引用。調查數據不僅提供對飼料產業的洞見，還關注整個農業的良性發展，而且一定程度上反映了報告所涵蓋國家的經濟實力。

今年，隨著一些新增國家的納入，包括柬埔寨、老撾、斐濟、和薩摩亞，調查涵蓋的國家總數達到144個，報告的權威性不斷增強，內容也越來越詳細。隨著全球機構的擴張，奧特奇也在不斷擴充調查的範圍。為了展示畜牧業的重要性以及飼料產業在支撐未來世界可持續發展的關鍵性，我們開放這份調查報告，讓所有人都能夠免費索取。

Where is the growth?
成長在哪裡?

The growth seen in 2017 was strong at 2.57% over 2016. Indeed, over the last five years, the feed industry has seen a total growth of 13%, which translates to an average growth of 2.49% per annum. This substantial and healthy growth has been supported by higher consumption of meat, milk and eggs, which is reflected in the increased feed production for the pig and broiler industries as well as the dairy industry. Growth in the demand for broiler feed of 3% and less than 1% for layers has been seen against the backdrop of an average growth of 2% in egg and meat consumption but also a historic improvement of 1% in feed conversion efficiency, primarily led by genetic improvements.

Global leaders in pork production led the way in pig feed production in 2017. The world's largest market, China, saw a rebound in pig feed production, and Russia grew, where government policy favors internal production and import displacement. Many smaller countries, particularly those in Africa, such as Kenya, Tanzania, Mozambique, Uganda and Namibia, also showed marked increases in pig feed production.

Dairy was one of the few sectors that saw growth across all regions. Europe, a global leader in dairy production, has seen the reform of the Common Agricultural Policy have a tumultuous impact on milk production, yet the region grew on average by about 2%. From a percent-growth standpoint, Africa was the star with dairy feed production up 10%. Obtaining information from Africa continues to be more difficult than in other regions, but the survey showed countries such as South Africa, Morocco and Zimbabwe significantly increased their reported 2017 dairy feed production.

Broiler feed production is the other primary species that saw increased feed production across all regions, with the largest growth found in Africa (10%) and Europe (7%). Egypt, Uganda, Mozambique and Morocco added a combined 1.3 million tons to Africa's growth. Romania, Russia and Ukraine all reported growth, contributing to Europe's overall production.

Both pet food and horse feed have had strong years, with no regional declines in either species. The growth in the pet food industry, and to some extent the equine industry, is usually correlated with the expansion of the middle class and urbanization. Pet food, in particular, is affected both by per capita income growth and a change in diet as more households transition from feeding pets table scraps to feeding them with complete nutrition. Several regions' pet food production powered ahead. Europe and Latin America, to a lesser degree but no less dramatic, saw increases in pet food production at 17% and 15%, respectively. Russia, the Czech Republic, Romania, Poland and Hungary combined for over 580,000 metric tons of extra pet food. Uruguay, Ecuador, El Salvador, Chile and Argentina represent almost all of the pet food production growth in Latin America, combining for 725,000 more tons. Asia-Pacific's pet food production increased by 13%, with China mainland, Thailand and China Taiwan as the primary contributors to the increase.

Avid readers of previous surveys will note that the feed mill number has increased from last year about 5%. It was determined that some of the smaller, private feed mills, particularly in European countries such as Ireland, Ukraine and the Czech Republic, should be included because they have grown to a larger size and are contributing more significantly to animal feed production.

One area showing some stagnation is beef. It is down overall about 1%, and Latin America, Africa and Europe show declines. This global downward trend has generally been felt by the industry for some time as more consumers turn to "white" meats such as chicken, pork and fish.

2017年飼料產量比2016年同比增長2.57%。實際上，飼料產業過去五年已經實現了13%的總成長，相當於每年平均成長2.49%。這種大幅的良性增長是靠肉類、乳製品和蛋消費的不斷增長所達成的，證據就是豬、肉雞以及乳牛養殖的飼料產量在不斷增加。在蛋和肉類消費平均增長2%的背景下，肉雞飼料的需求增長了3%，而蛋雞飼料需求增長不到1%，但是，由於基因改良，飼料轉化率提高了1%。

2017年，全球豬飼料產量提升主要來自幾個豬肉生產大國。世界最大的豬肉市場中國的豬飼料產量回升。而隨著政府政策扶持國內產業以替代進口，俄羅斯的豬飼料產量也在增長。許多規模較小的國家，尤其一些非洲國家，比如肯亞、坦尚尼亞、莫三比克、烏干達和奈米比亞的豬飼料產量也有顯著增加。

乳製品是少數幾個在所有地區都增長的產業之一。作為全球乳製品產業的龍頭，雖然歐洲實施的共同農業政策改革對牛奶產量帶來了巨大的影響，但是該地區的平均增長仍有約2%。從增長百分比來講，成績最耀眼的要數非洲，乳牛飼料產量增長達10%。但是，與其他地區相比，獲取有關非洲國家的產量資料的難度仍然較大，但是本調查顯示南非、摩洛哥和辛巴威等國家2017年的報告乳牛飼料產量都顯著增加。

肉雞飼料是另外一個在所有地區都實現增長的飼料產業。其中，增幅最大的是非洲（10%）和歐洲（7%）。埃及、烏干達、莫三比克和摩洛哥為非洲的肉雞飼料產業貢獻了130萬噸的增長。羅馬尼亞、俄羅斯和烏克蘭的報告顯示也都有所增長，推動了歐洲肉雞飼料總產量的上升。

過去幾年，寵物食品和馬飼料產量增長強勁。在所有地區，這兩個畜種飼料無一出現下滑。寵物食品產業，在某種程度上是馬產業，通常與中產階級規模擴大和城鎮化的深入有關。尤其是寵物食品，它同時受到每人平均收入和膳食變化的影響，因為會有越來越多原先用剩飯剩菜餵養寵物的家庭過渡到用完全的營養飼料。幾個地區的寵物食品產量走在了前列。歐洲和拉丁美洲雖然規模不算大，但是增速毫不遜色，分別增長了17%和15%。俄羅斯、捷克共和國、羅馬尼亞、波蘭和匈牙利的寵物食品產量合計增加了58萬噸。烏拉圭、厄瓜多爾、薩爾瓦多、智利和阿根廷貢獻了幾乎拉丁美洲寵物食品產量的所有增長，合計達72.5萬噸。亞太地區的寵物食品產量增加了13%，增長主要來自中國大陸、泰國和臺灣。

關心過前面幾期飼料調查報告的熱心讀者可以發現，全球飼料廠數量相比去年增加了5%。我們決定將一些規模較小的私人飼料加工廠納入調查範圍，尤其是愛爾蘭、烏克蘭和捷克等歐洲國家的此類加工廠，因為它們的規模已經擴大，並且在畜牧飼料產量中的貢獻越來越大。

肉牛產業增長稍有停滯。全球總產量下降了1%，其中拉丁美洲、非洲和歐洲的產量都出現下滑。隨著肉類消費更多轉向雞肉、豬肉和魚肉等“白肉”，這個全球範圍內的產量下降趨勢已經在產業內持續了一段時間。

Which region is growing fastest?
哪個地區成長最快?

Europe and Asia-Pacific tied for the title of fastest-growing region, each at a 3% increase over 2016. This growth primarily stemmed from increases in pig and broiler feed production in Europe and pig and pet feed production in the Asia-Pacific region. Russia, in particular, increased its estimated pig feed, including more private production than before. While Russian broiler feed production also increased by 3%, Ukraine, Romania, the U.K. and Belgium also reported higher numbers, resulting in strong growth for that sector in the European zone.

在增長最快地區的排行榜上，歐洲和亞太不分上下，相比2016年各自實現了3%的增長。歐洲的增長主要來自豬飼料和肉雞飼料，而亞太地區則主要是豬飼料和寵物食品的增長。其中，俄羅斯豬飼料產量有所增長，包括比往年更高的自配戶飼料產量。儘管俄羅斯的肉雞飼料產量也增長了3%，但是烏克蘭、羅馬尼亞、英國和比利時也實現了更高的產量，帶來歐洲地區該產業的強勁增長。

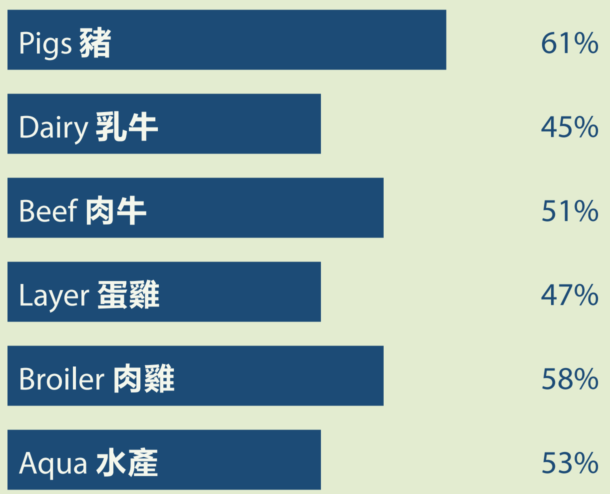
Region 區域	2017	2012	% Change 百分比變化
Africa 非洲	39.1	30.3	29%
Asia-Pacific 亞太	381.1	356.5	7%
Europe 歐洲	267.1	208.4	28%
Latin America 拉美	160.7	137.0	17%
Middle East 中東	27.0	25.4	6%
North America 北美	194.6	188.1	3%
Total 總量	1,069.7	945.8	13%

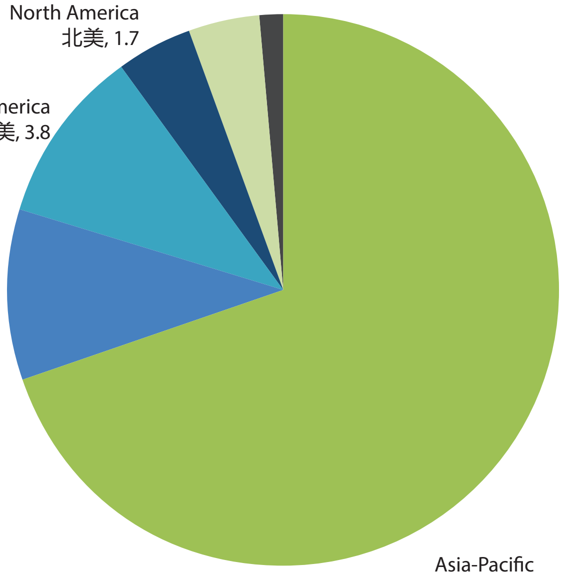
Top 7 in 2017
2017年前7大飼料生產國

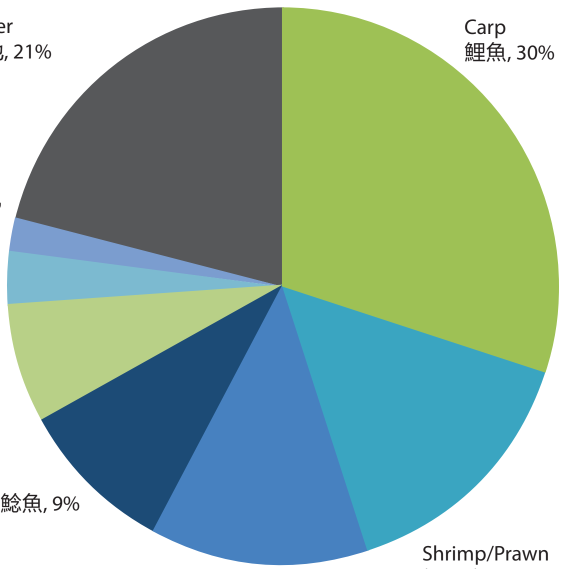
	Mills 飼料廠	Production 產量	% Growth 成長百分比
China **中國**	6,000	186.9	-0.4%
USA **美國**	6,241	173.0	2%
Brazil **巴西**	1,572	69.9	1%
Russia **俄羅斯**	569	37.6	19%
Mexico **墨西哥**	501	34.4	2%
India **印度**	1,201	34.2	7%
Spain **西班牙**	845	33.0	2%

The top seven countries can be viewed as a barometer of the trends in agriculture. This year, comparing the production of these top countries as a percentage of aggregate feed production from the rest of the world demonstrates how significant they are to the overall business:

7大飼料生產國可以被視為是農業發展趨勢的指標。今年，通過比較這些產量大國與其他國家飼料總產量的比率，我們可以看出他們對整個產業的重要性：







Aquaculture 水產養殖

Aquaculture trends tend to be amongst the most anticipated by the agricultural trade media. This is presumably because of the strong growth of farmed fish over the past 10 years and the degree to which aquaculture is replacing wild fishing as the primary source of fish for human consumption. Aquaculture feeds remained stable overall in 2017. The numbers showed a slight decline in the Asia-Pacific and European regions, while Latin America and the Middle East increased aqua feed production. African countries mainly increased aquaculture feed production, but one of the larger producers, Egypt, saw a decline.

水產養殖發展趨勢是最讓農業貿易媒體期待的產業之一。這大概是因為過去10年活魚養殖產業的強勁增長，以及作為人類主要魚肉消費來源，水產養殖對野生漁業的替代程度不斷上升。2017年，水產養殖飼料產量保持平穩。亞太和歐洲地區產量略有下降，而拉丁美洲和中東的水產飼料產量上升。主要非洲國家的水產飼料產量都實現成長，但是作為較大生產國的埃及卻出現了下降。

The continued weakness of aquaculture in China (-5%) reported this year and last, and to a lesser degree in the rest of Asia-Pacific, has been linked to changes in consumption, disease outbreaks and a consolidation of the industry. Additionally, government controls on feeding practices and food safety, particularly the administration of antibiotics, may be having an influence on production levels.

Asia-Pacific is 70% of aqua feed production.
亞太地區占水產飼料總量的70%

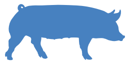
今年，中國水產飼料產量持續了去年的疲弱之勢，下降了5%。亞太地區其他國家也出現下降，但下降幅度不如中國。主要原因是消費結構變化、疾病爆發和產業合併造成的。此外，政府對餵養方式和食品安全的控制，尤其對抗生素的控制，可能對產量造成了影響。

Brazil, Chile and Peru led the increased reported production in Latin America, and Iran stood out from the pack in accounting for almost all of the reported growth in the Middle East. Carp leads the production of aquaculture feed, with shrimp/prawn and tilapia as the second and third places in total production. Catfish, salmon and trout also ranked, though to lesser degrees.

在拉丁美洲，產量增幅最大的是巴西、智利和秘魯。而在中東地區，伊朗脫穎而出，貢獻了該地區幾乎所有的成長。水產飼料產量最大的是鯉魚飼料，其次分別蝦和吳郭魚飼料。另還有鯰魚、鱒魚和鮭魚飼料，儘管增幅較小。

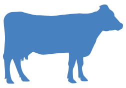
Species growth
畜種成長

Swine
豬



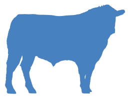
Region 區域	% Growth 成長百分比
Africa 非洲	6%
Asia-Pacific 亞太	6%
Europe 歐洲	5%
Latin America 拉美	0%
Middle East 中東	0%
North America 北美	0%
Global **全球**	6%

Dairy
乳牛



Region 區域	% Growth 成長百分比
Africa 非洲	10%
Asia-Pacific 亞太	2%
Europe 歐洲	2%
Latin America 拉美	4%
Middle East 中東	4%
NorthAmerica北美	1%
Global **全球**	3%

Beef
肉牛



Region 區域	% Growth 成長百分比
Africa 非洲	-15%
Asia-Pacific 亞太	-6%
Europe 歐洲	3%
Latin America 拉美	-9%
Middle East 中東	5%
North America 北美	4%
Global **全球**	-1%

Layer
蛋雞

Region 區域	% Growth 成長百分比
Africa 非洲	11%
Asia-Pacific 亞太	-3%
Europe 歐洲	3%
Latin America 拉美	3%
Middle East 中東	-5%
NorthAmerica北美	4%
Global **全球**	0.3%

Broiler
肉雞

Region 區域	% Growth 成長百分比
Africa 非洲	10%
Asia-Pacific 亞太	1%
Europe 歐洲	7%
Latin America 拉美	2%
Middle East 中東	1%
North America 北美	1%
Global **全球**	3%

Feed costs reflect the global economy
飼料成本反映全球經濟

Feed costs did not change much in 2017, which would be seen as a positive by many in the industry. Certainly, it has been good for producers of milk, meat and eggs as feed costs are highly correlated with cereal and vegetable protein prices.

In choosing to evaluate the feed costs for finisher feeds of pigs, layers and broilers, Alltech elected to compare these feeds based on the relative homogeneity of these formulations globally. Pig finisher feeds cost, on average, about 2% more globally than 2016. Considering that the production of pig feeds was about 5.54% higher, this would indicate a strong year for this sector.

The layer industry grew just 1%, but it remained stable with a drop of just 1.7% in feed costs. Broiler production costs for finisher diets dropped 14% globally, while the industry itself is showing incremental growth of just under 3%. Yet, with feed representing 70% of live animal production costs, this cheaper feed will translate into cheaper chicken and eggs for the consumer.

While the average global feed costs did not change much from 2016 to 2017, some individual countries experienced greater volatility. Germany and Bulgaria saw increases across the board for finisher diets. On the other hand, some Latin American countries seemed to get a break regarding feed costs. Brazil, Peru, Chile, Paraguay, Jamaica and Costa Rica all reported declines in animal feed finisher diet costs. Many countries in Africa, such as Nigeria and Cameroon, maintain some of the highest finisher diets with costs nearing $700 or above.

2017年，飼料生產成本變化不大。這在許多產業人士看來是一個好現象。當然，對乳製品、肉類和雞蛋生產者們來說，這也是一件好事，因為飼料成本與穀類和蔬菜蛋白價格有很高的相關性。

	Pigs 豬	Layers 蛋雞	Broilers 肉雞
Global Average 全球平均值	$363	$363	$418
Percent Change 百分比變化	2%	-1.7%	-14%

在選擇對豬、蛋雞和肉雞肥育飼料成本進行評估的過程中，奧特奇選擇基於全球範圍內相對同質的配方對這些飼料進行比較。全球範圍內，豬肥育飼料成本平均比2016年增加了2%。考慮到豬飼料產量增加了大約5.54%，這表明該產業去年的成長強勁。

蛋雞產業雖然只成長了1%，但是飼料價格僅下降了1.7%，保持了平穩趨勢。全球範圍內，肉雞的肥育飼料成本下降了14%，而該產業自身實現了接近3%的成長。但是，由於飼料占牲畜養殖成本的70%，飼料價格的下降將意味著消費者能以更便宜的價格買到肉雞和雞蛋。儘管從2016年到2017年，全球飼料平均成本變化不大，但是一些個別國家卻經歷了較大的波動。德國和保加利亞的肥育飼料成本全面上漲。另一方面，一些拉丁美洲國家飼料的價格似乎下降。巴西、秘魯、智利、巴拉圭、牙買加和哥斯大黎加都實現了牲畜肥育飼料成本的下降。許多非洲國家，比如奈及利亞和喀麥隆仍然是肥育飼料成本最高的國家，接近700美元甚至更高。

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This year marks the seventh edition of the Alltech Global Feed Survey, a yearly assessment of compound feed production. The data represents 144 countries, reflecting information obtained in partnership with local feed associations and Alltech's sales team, who collected data from more than 31,000 feed mills.

作為一份對複合飼料產量的年度評估報告，今年是奧特奇連續第七年發佈全球飼料調查報告。該資料涵蓋了144個國家，奧特奇的業務團隊與世界各國的飼料協會合作，從超過3萬家飼料公司收集並獲取資料。

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