

Flash Commentary: Antibiotics and Animal Health

Poultry Antibiotics in Emerging Markets: Should We Rethink Growth?



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- **Recent survey results indicate a move away from antibiotics in emerging market poultry production.** WATT Global Media surveyed poultry feed producers and consumers globally (i.e., nutritionists, consultants, veterinarians, production managers) and 43% of respondents said that more than half of their feed production is now antibiotic-free. Based on the regional breakdown provided, we estimate that emerging markets accounted for 60-75% of survey participants.
- **Possible divergence from company views.** In fiscal 4Q16, Phibro Animal Health (PAHC: \$25.54) reported modest growth in sales of medicated feed additives (MFAs) containing antibiotics. Weakness in the US was offset by international growth from emerging markets such as Brazil and China. On the earnings call, Phibro cited emerging markets' growing populations and need to improve productivity in food production as a long-term driver for their international MFA business. Our read of the survey results is that investors should be cautious assuming that growth in emerging market poultry production will translate into similar growth in MFAs.
- **Nutritional and specialty feed additive opportunities in EM.** Our October 5, 2015 report *Antibiotics and Animal Health: Value-Chain Implications in the US* highlighted nutritional and specialty feed additives as having significant growth potential. We believe the survey implies a broader opportunity in EMs with two-thirds of survey respondents exploring, testing or using feed additives as antibiotic alternatives. Probiotics and prebiotics usage is also on the rise, supporting our previous view that growth these categories would outpace other additives.
- **Investment implications.** For **animal health companies**, the survey signals possible checks to future growth in antibiotic use in EMs. Nutritional and specialty feed additives are generally produced by major **chemical companies** and represent a small portion of overall revenue, but opportunities in the EM appear to be growing. For companies with more concentrated exposure, probiotic and prebiotic feed additives offer the greatest growth potential.

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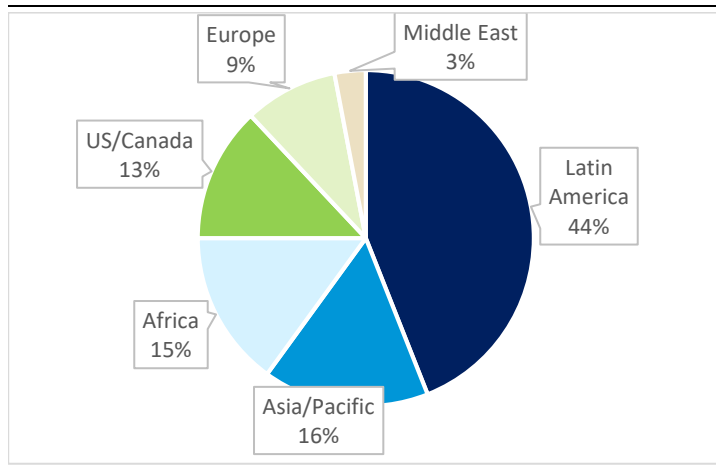
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Key takeaways from survey

In its 2016 Nutrition & Feed Survey, WATT Global Media surveyed producers and users of poultry feed globally. We estimate that emerging markets represented between 60% and 75% of the 286 individual respondents (only a regional breakdown is provided), with Latin America being the largest at 44%.

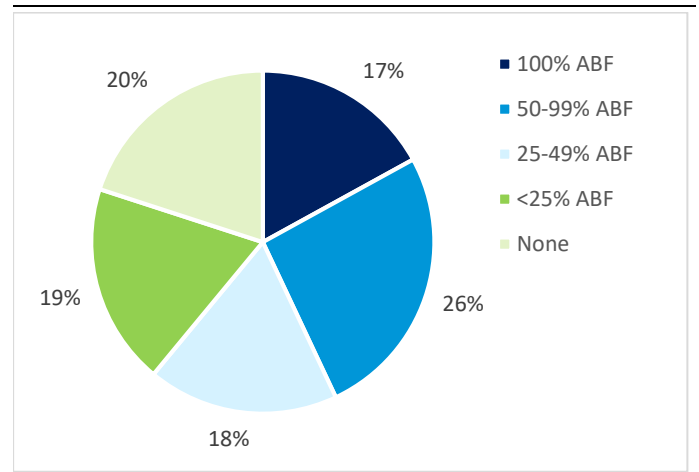
The significant weight to emerging markets is notable given 43% of survey respondents reported that 50% or more of their feed production is antibiotic-free. On the contrary, only 20% reported that none of their production is antibiotic-free.

Figure 1: Geographic breakdown of survey respondents



Source: WATT Global Media, Cornerstone Capital Group

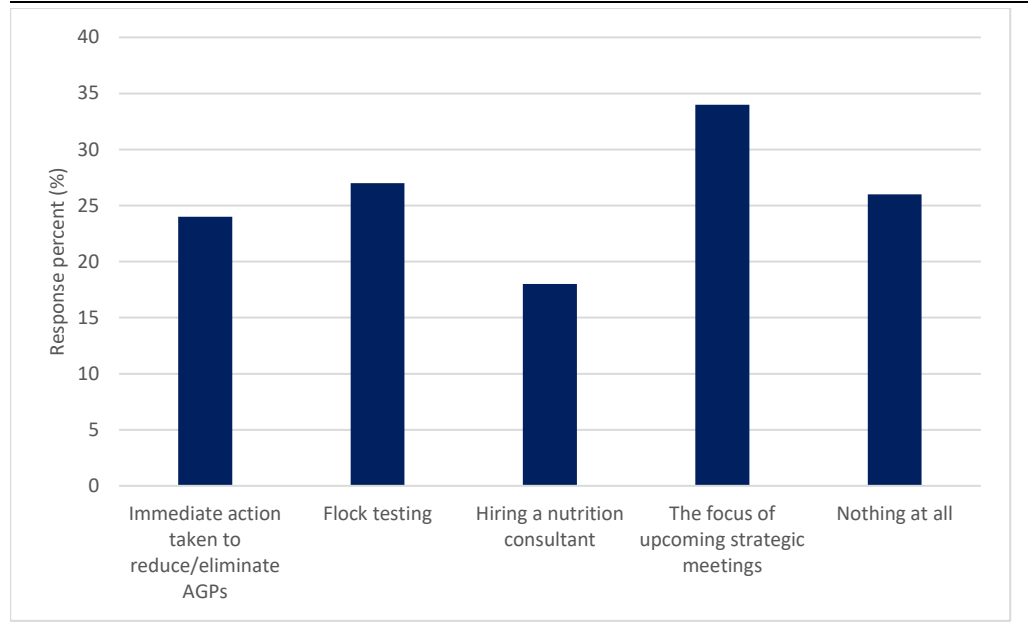
Figure 2: Percentage of antibiotic-free animal feed production



Source: WATT Global Media, Cornerstone Capital Group

When asked how companies are reacting to increased consumer pressure, 24% reported that their company has taken immediate action to reduce or eliminate the use of antibiotic growth promoters (AGPs) in their poultry operations (Figure 3). More interesting is the high response rate of companies doing flock testing or focusing on this issue in upcoming strategic meetings. This suggests that the move away from antibiotics in emerging markets could accelerate.

Figure 3: Reaction to consumer pressure to reduce/eliminate AGPs in 2016



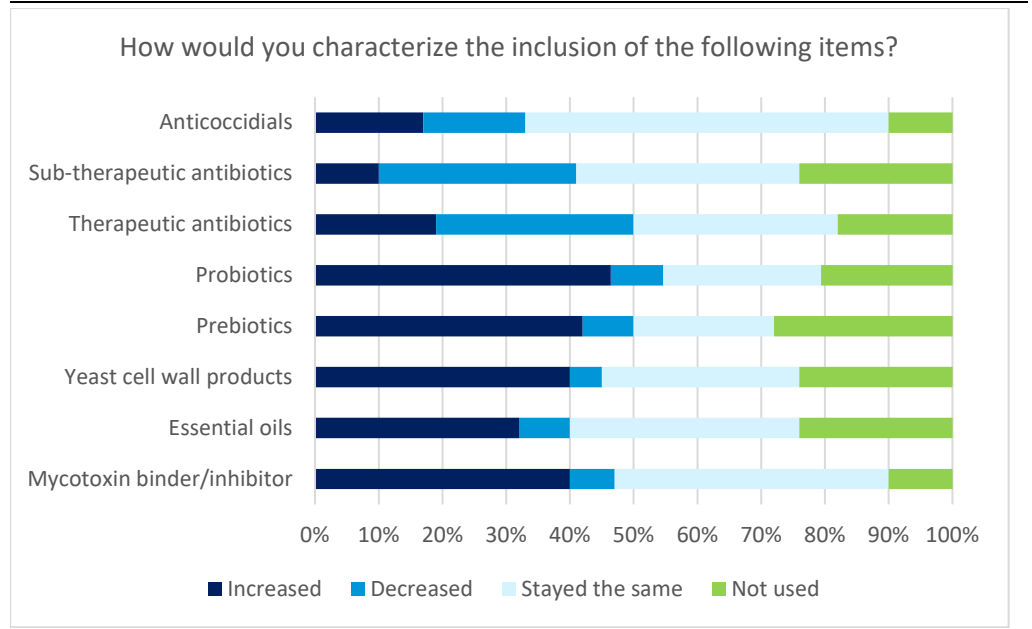
Source: WATT Global Media, Cornerstone Capital Group

Turning to antibiotic alternatives/replacements, approximately two-thirds of survey participants are exploring, testing or using nutritional or specialty feed additives. In terms of their efficacy as antibiotic replacements, probiotics seem to be the most reliable, with organic acids and enzymes also scoring well. It's worth noting that some of these additives are likely being used in combination with others. Given the perception of efficacy, it isn't surprising these additives are also being used most frequently.

Efficacy will be an important metric to watch. We have highlighted nutritional and specialty feed additives for their growth potential, but tempered expectations in the near-term given the need for research and large-scale trials to demonstrate efficacy.

The most significant year-over-year increase in usage was seen in probiotics and prebiotics (Figure 4). This supports our forecast that growth in these two categories will outpace other feed additives.

Figure 4: Usage of feed additives



Source: WATT Global Media, Cornerstone Capital Group

Most survey participants report decreases in the amount of therapeutic and sub-therapeutic antibiotics being used. One might expect to see sub-therapeutic declines as a result of AGP regulation, but the reported reduction in therapeutic use is surprising, particularly given the high representation of emerging markets in the survey.

We will continue monitoring data on antibiotics usage given the potential earnings impact on animal health companies and poultry producers. It was already evident that producers in developed markets are reducing or eliminating antibiotics from their process, but the survey results suggest caution in assuming that growth in emerging market poultry production will translate into similar growth in MFAs.



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