

Flagship Report: Toward Transparency

Antibiotics and Animal Health: Value-Chain Implications in the US



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- **Antibiotic resistance a growing concern.** The proliferation of antibiotic resistance is primarily attributed to the misuse and overuse of the drugs in human medicine and animal agriculture. With respect to the latter, a confluence of regulatory action and heightened consumer awareness is exerting pressure on livestock producers to reassess their usage of antibiotics. In this report we aim to provide transparency on trends in antibiotic use as well as on other nutritional feed additives.
- **What's currently used to maintain animal health and promote growth?** Antibiotics are a simple and cost-effective way for meat and poultry producers to increase production and manage animal health. But there are a number of other specialty and nutritional feed additives that are utilized for similar purposes. We review the range of feed additives that are currently used and in development.
- **Investment implications.** In offering a framework for further inquiry, we assess the impact of curbing antibiotic usage in livestock and poultry production across several parts of the animal nutrition value chain.
 - For **animal health companies**, we believe regulation in its current form presents limited near-term risk to earnings, though shifting consumer demand and more stringent regulation could have a more significant impact longer term.
 - Specialty and nutritional feed additives are generally produced by major **chemical companies** and represent a small portion of overall revenues.
 - However, for companies with more **concentrated exposure**, prebiotic and probiotic feed additives appear to offer the greatest growth potential.
 - From a producer standpoint, **poultry processors** that are proactive and innovative in reducing antibiotics use are well-positioned to meet consumer-driven demand.
 - **Key public companies highlighted in this report:** *Animal health* – Phibro Animal Health, Zoetis; *specialty and nutritional feed additives* – BASF, DSM, DuPont, Novozymes; *processors* – Tyson Foods, Pilgrim's Pride, Sanderson Farms.

Michael Shavel

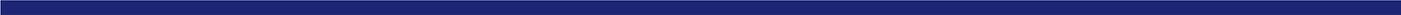
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