



**Unlocking market potential: Probiotic use in poultry in the EU**

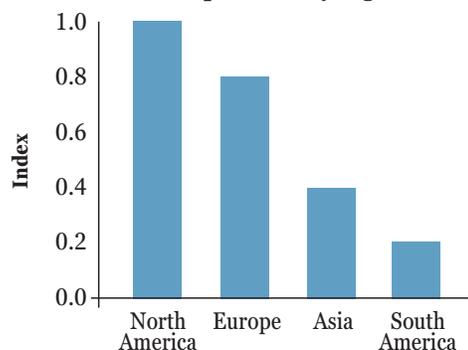
*Based on an article by Alfred Blanch, DVM, PhD, Poultry Consultant, Chr. Hansen*

With proven performance, economic and welfare benefits, probiotics have major market potential in the European poultry industry. But in a recent article in *International Poultry Production*, Chr. Hansen poultry consultant Alfred Blanch wrote that to realize this potential, it is first necessary to understand the unique challenges facing the poultry and probiotic sectors in the EU.

Interest in probiotic feed additives has grown steadily since they first appeared in the EU in the 1980s, Blanch wrote. Today, online databases such as PubMed include more than 13,000 publications on probiotics, with over 400 related to poultry.

Until recently, the use of probiotics in EU poultry production has been limited, but times are changing, Blanch stated. Currently there are 14 probiotics that are either registered or undergoing registration in the

**Figure 1 - Indexed global probiotic market potential by region**



EU targeting various segments of the poultry industry, including broilers, layers and turkeys. Although actual market data are hard to come by, he said, probiotic use is increasing globally, with the EU and US representing the largest markets in the near term.

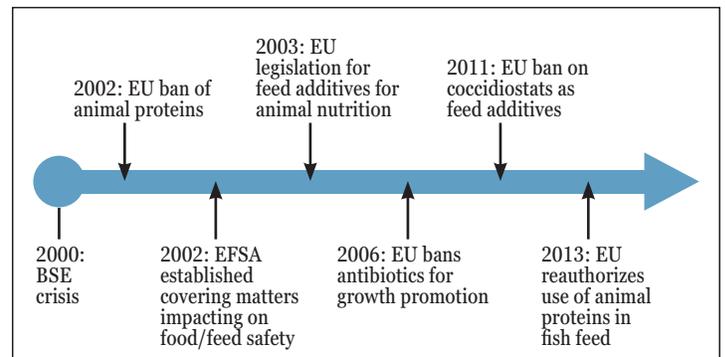
While probiotic adoption has been relatively high in EU swine production, Blanch noted that it has been slower in the EU poultry sector — especially compared to the US, where probiotics are used by an estimated 70 to 80 percent of poultry producers.

“Following the EU ban of antibiotic growth promoters (AGP) in 2006, one would have expected to see a high adoption rate of probiotics and other feed additives by poultry producers. However, market conditions in the US are very different to those in the EU,” he wrote.

**Different market conditions**

A number of factors contribute to the relatively low use of probiotics in the EU compared to the US. One is regulatory: according to Blanch, the European Food Safety Authority has particularly stringent standards for registering probiotic feed additives, a process that can take between three and four years to complete. In the US, the registration process is less complicated. If the bacterial species is already a listed feed ingredient, there is no formal registration required on the federal level, although the product label or manufacturing facilities must be registered by state.

**Figure 2 - Development of EU feed additive regulations**



Another factor is the common US practice of reusing litter, which contributes to early intestinal challenge. However, Blanch reported, the major driver of probiotic use in the US was the introduction of coccidiosis vaccines, which cannot be used with coccidiostats or ionophores. These market conditions, combined with increased scrutiny of antibiotic use and the move toward antibiotic-free production, have driven wide acceptance of probiotics in US poultry.

**Slow adoption**

In the EU, by contrast, poultry producers have been slow to adopt probiotics, despite their well-documented performance and efficiency benefits. According to Blanch, one important reason for this is that some companies may have “overpromised” the efficacy of their products. “End user expectations were poorly managed and consequently this perception exists today,” he wrote.

Second, following the AGP ban, many EU producers sought to improve hygiene, housing and overall management. This resulted in improved performance, and according to Blanch, it is more difficult to demonstrate the benefits of feed additives in high-performing flocks.

“Birds performing to their potential are typically healthy, management is good and hygiene is high,” he wrote. “However, if high-performing birds suffer poor health via, for example, intestinal disturbance, the drop in performance can be dramatic.”

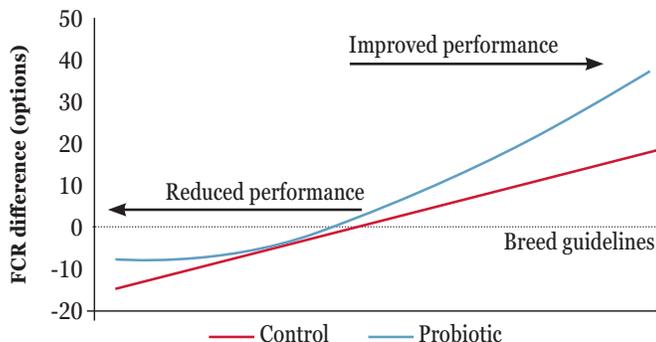
**Drivers of probiotic usage in EU**

Still, Blanch believes that probiotics have important roles to play in the EU poultry industry, including:

- Reducing reliance on therapeutic antibiotics to maintain antibiotic efficacy
- Meeting consumer demand and regulatory pressure to reduce or eliminate antibiotic use
- Providing “insurance” against sudden performance drops due to intestinal challenges
- Promoting animal welfare to comply with current standards and increase profits

However, Blanch wrote, return on investment must ultimately determine whether to include probiotics or any other feed additive in a poultry management program. To accurately calculate ROI, Blanch said the overall financial analysis should include not just feed costs and money earned from the sale of birds, but also the costs of litter, vaccines, labor and treatments.

**Figure 3 - Relationship of probiotic efficacy versus poultry breed performance guidelines**



“This is because the other benefits of probiotics and their mode of action can still directly impact upon overall positive financial outcome, for example improving litter quality or contributing to a reduction in antibiotic usage,” he explained.

Also, Blanch emphasized, producers looking to maximize returns from probiotics must be mindful of application.

“We know probiotics work well; the challenge...is to convince the poultry industry that probiotics are part of the solution.”

“Typically only *Bacillus* and *Clostridium* survive the heat treatment of feed pelleting, although some preparations of

*Enterococcus* are also suggested to survive the feed manufacturing process,” he stated. “If an end user applies a probiotic via an inappropriate route or incorrectly, the bacteria will not survive and therefore no efficacy will be demonstrated.”

**Challenges and opportunities**

A final challenge to probiotic adoption in the EU, Blanch observed, is the structure of the industry: although there is a high level of integration, many feed mills are independent. This makes customer targeting difficult for probiotic suppliers, as the needs of each customer segment can vary widely.

“Probiotic companies are beginning to develop more complete strategies,” Blanch stated. “The introduction of matrix values for swine probiotics was pioneered by Chr. Hansen, which is now doing the same for poultry probiotics. In the EU market, where performance as well as feed cost is high, the ability to offset probiotic cost is extremely important.”

According to Blanch, probiotics are not a “magic bullet” and it must be understood that they cannot provide a complete solution. But despite the regulatory, structural and performance challenges facing the probiotics market in the EU, probiotic use is still growing and its benefits are clear.

“We know probiotics work well; the challenge in the EU, and globally, is to convince the poultry industry that probiotics are part of the solution for poultry management that brings real value and a return on investment,” Blanch concluded.

The full article, “European experiences with probiotics in poultry production,” appears in the November 2015 issue of *International Poultry Production*, pp. 7-9. To subscribe and access the digital issue, [click here](#).