FrontLine®
Information for Today's Agri-business Professional

Probiotics Can Make a Big Difference in Bird Health

Birds don't transfer immunity to their young in the same way mammals do. Transfer of antibodies to the chick embryo occurs in two steps. First, antibodies are deposited in the egg yolk and egg white, and then transferred to the embryo. Even with a transfer of antibodies, newly hatched chicks are susceptible to illness and death. Chicks, through their environment and by feeding, establish their gut microflora (a name for microorganisms living in an environment). This microflora can be helpful or harmful to the bird. Probiotics help by providing beneficial bacteria that can make a big difference in bird health.

What are Probiotics?

According to WHO, (the World Health Organization), probiotics for use in farm animals are…. *"Live microorganisms, which when given in adequate amounts, confer a health benefit on the host animal."* Probiotics are beneficial microorganisms.

Why Use Probiotics for Poultry?

Birds undergo stress at different times in their life, including hatching, temperature changes, transportation, new environments, and feed and water changes.

The goal is to populate the digestive tract with beneficial bacteria, so pathogens like *E. coli*, *Salmonella*, and *Clostridium* have no room to grow. Feeding probiotics early gives chicks a head start to good health.

How Does a *Bacillus subtilis* Probiotic Work?

Early attempts to feed probiotics resulted in mixed outcomes due to poor selection of bacteria strains. These probiotics were often mixtures of unprotected bacteria such at *Lactobacillus, Bifidobacterium* and other unknown species. When administered through water or feed, the beneficial bacteria were killed before entering the chicks' gut. *Bacillus subtilis* is a very hardy strain of beneficial bacteria that populates rapidly.

- *Bacillus subtilis* produces enzymes to digest feeds. These enzymes make feed nutrients more available to the chick.
- *Bacillus subtilis* produces substances (metabolites) to protect themselves from other pathogenic (bad) bacteria species such as *Clostridium, Salmonella*, and *E. coli*. These metabolites reduce the number of harmful bacteria in the gut of the chick through population exclusion.
- Since an optimum microflora requires a proper mixture of millions of bacteria it is important to administer an adequate amount of beneficial *Bacillus* bacteria throughout a bird's life. If properly selected and fed, the microflora will remain stable with little risk of intestinal pathogens becoming a problem. Thus the good bacteria "push out" the bad bacteria.

Why the *Bacillus subtilis* strain in Sav-A-Chick®?

Many strains of *Bacillus subtilis* bacteria exist in nature. Like other feed ingredients (vitamins, minerals and protein for example) it is important to select the proper product for your birds' needs. The *Bacillus subtilis* strain in Sav-A-Chick has been selected for use in poultry because it provides the greatest impact on early development of a healthy gut, as well as optimum impact on production later in life. The *Bacillus subtilis* strain in Sav-A-Chick has been well-researched and found to be effective. In fact, the supplier of this strain is the world's leading supplier of human probiotics.

The Bottom Line on Probiotics

Feeding probiotics helps chicks start well. Continuing to feed probiotics throughout a bird's life helps maintain a healthy digestive system. It makes sense to help insure your flock's health.

Milk Products
The Milk Replacer Source®

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