

Q-Biotic® 3DP Can Give Turkeys a Strong Start



Key Points:

- Turkeys can undergo a plethora of microbial challenges throughout the production cycle
- Hindered health or growth during the turkey brooding phase can have long lasting effects
- Reduction or ban of the use of antibiotics increase the likelihood for microbial challenges
- Q-Biotic® 3DP is a multi-strain direct fed microbial (DFM)
- Feeding Q-Biotic® 3DP improves performance of turkeys
- Q-Biotic® 3DP can give turkey poults a good start

Uncontrolled microbial stress can rob turkey performance

The turkey industry continues to be an important supplier of a variety of healthy meat products. Its success has been the results of advances in turkey genetics, nutrition, housing, disease prevention, management, and biosecurity. Despite ample improvements in biosecurity, enteric stresses, including coccidiosis, viral and bacterial infections, continue to challenge production efficiency and profitability. Moreover, the production cycle is long enough for potentially repeated exposure to such health and growth robbing health challenges. Managing microbial stress throughout the production cycle is vital, and ensuring a successful brooding phase in particular can set turkey poults up for a better chance of achieving production targets. With the reduction or ban of the use of antibiotics, effective protective alternatives have become a necessity.

Q-Biotic® 3DP is a select multi-strain Bacillus-based direct fed microbial

Research and commercial experience with DFMs have shown that both single- and multi-strain DFMs can be effective in improving poultry production performance. Select multi-strain DFMs can be more effective under greater microbial stress conditions. Synergy of modes of action among the various DFM strains can better counteract the multi-stress factors typically seen

under such conditions. Q-Biotic® 3DP is a proprietary multi-strain DFM. The three bacterial strains have been selected for their activity, viability, stability, efficacy, and synergy. Their individual attributes and complementary modes of action allow for covering the microbial complexity of the gastro-intestinal tract.

Probiotics can assist turkey production

Feeding efficacious DFMs has been shown to alleviate the negative effects of enteric infections via enhancing intestinal integrity, pathogen reduction, balancing of gut microbiota, and immune response modulation. Research has shown that Q-Biotic® 3DP leads to poultry performance improvements, the magnitude of which being greater the higher the level of stress. Research has also shown that under higher level of microbial exposure (ie coccidia, *E. coli*, *Clostridium perfringens*, etc.), the multi-strain Q-Biotic® 3DP is a better choice for poultry than a single strain. Feeding of Q-Biotic® 3DP as a part of a health-promoting nutritional program can assist turkeys, especially during the critical brooding phase. During the latter, birds can face a variety of stress, including a plethora of common enteric challenges.

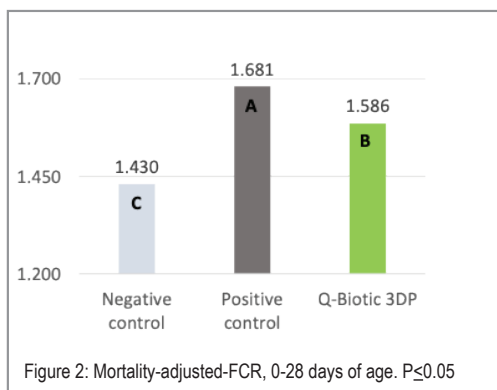
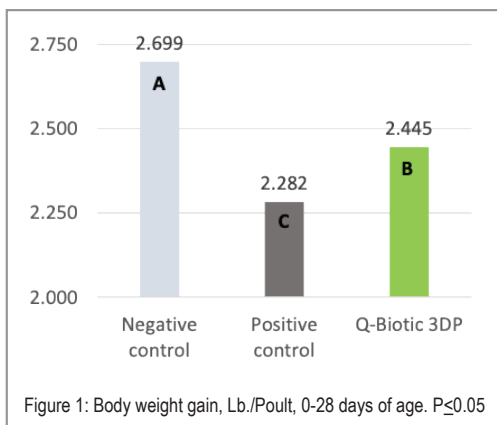
Q-Biotic® 3DP gives turkey poults an excellent start

The effects of Q-Biotic® 3DP on the performance of turkey poults exposed to enteric stress was evaluated during the brooding period in a battery trial and a floor pen trial conducted consecutively.

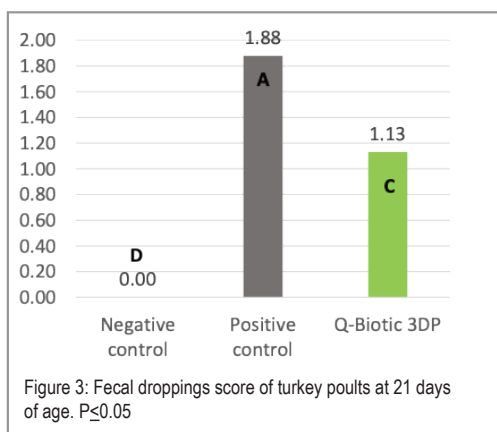
Battery Trial Summary:

Feeding male Nicholas Select turkey poults diets supplemented with Q-Biotic® 3DP (recommended inclusion rate of 0.5 Lb. per ton of feed) from 0 to 28 days of age alleviated the effects of microbial stress on body weight gain by 40% (Figure 1) and feed conversion by 49% (Figure 2). There were no significant differences in feed intake or mortality (Data not shown). Enteric stress was induced by orally administering a mixture of field *Eimeria adenoides* and *Eimeria meleagritidis* to the positive control and the Q-Biotic® 3DP fed birds at day 14 of age. The

negative control birds were not supplemented or challenged. The positive control birds were challenged only.

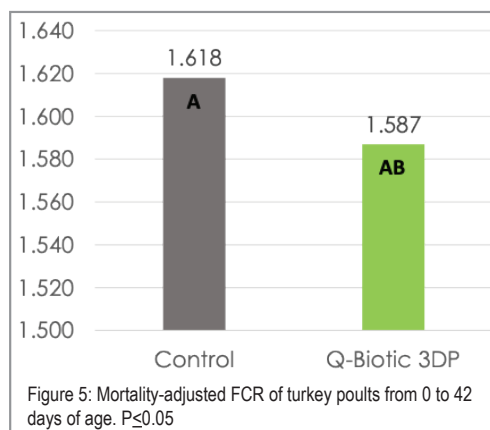
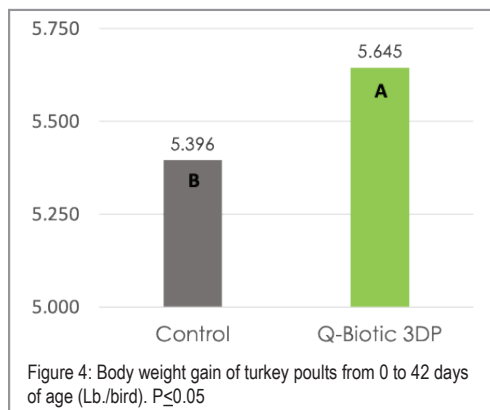


The fecal droppings' score was improved by 40% by feeding Q-Biotic® 3DP (Figure 3), suggesting a healthier intestinal tract conditions and supporting the performance observed. Poults fed Q-Biotic® 3DP had 35% lower fecal coccidial oocyst count (data not shown), which also support the performance results.



Floor Pen Trial Summary:

Feeding male Nicholas Select turkey poults pelleted diets supplemented with Q-Biotic® 3DP (0.5 Lb. per ton of feed) from 0 to 42 days of age improved body weight gain by 4.6% (Figure 4) and feed conversion by 2% (Figure 5). There were no significant differences in feed intake or mortality (Data not shown). Turkeys fed Q-Biotic® 3DP had 82% lower fecal coccidial oocyst count at 28 days of age (data not shown). Enteric stress was induced by adding a mixture of field *Eimeria adenoides* and *Eimeria meleagridis* to the feed at 14 days of age.



Q-Biotic® 3DP, a DFM additive to consider in turkey production

Enteric stress is common throughout commercial turkey production. Research and field observations have shown that a compromised growth performance during the brooding phase, particularly that due to pathogens, such as *E. adenoides* + *E. meleagridis*, has a high likelihood to culminate into a reduced turkey body weight and/or feed conversion at market age. Results of the 2 consecutive trials in this report show that dietary supplementation of Q-Biotic® 3DP can help turkeys have a better performance during the critical first 6 weeks of life.

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 QTI TR v16-i6-8/22



qtitechnology.com | 847-649-9300
 1707 N. Randall Rd, Suite 300, Elgin, IL 60123