

Identifying the silent threats to your operation



by Dr Xandra Smith, Director of Innovation and Product Development, Arm & Hammer Animal and Food Production

Productivity loss is not something you want plaguing your operation. But when subclinical disease goes undetected, that is exactly what happens. Poor feed conversion, greater variation in bird performance, and lost bird potential are all risks that come with subclinical disease flying under the radar – and the risk gets even higher if it becomes secondary clinical disease.

So, is it worth your time trying to identify such a silent threat? The short answer is yes. Across 6,500 samples from broilers and turkeys, 43.6% had subclinical levels of avian pathogenic *E. coli* (APEC) and *Clostridium perfringens* (CP). If left untreated, your birds' health – and your profits – are at risk.

CUSTOMISE A SOLUTION TO YOUR OPERATION'S UNIQUE MICROBIAL MAKEUP

One solution to fighting subclinical disease starts with understanding the microbial makeup of your environment, also known as Microbial Terroir™. With an on-farm Microbial Terroir assessment you can uncover your unique challenges and get a customised solution for your specific needs.

The researchers at our state-of-the-art lab analyse and identify your unique microbial makeup, formulate a solution tailored to your needs, and continually validate and reassess the environment to ensure your birds receive optimal protection against ever-evolving microbial challenges.

CERTILLUS™ is a customised solution developed to fit your needs using proprietary strains of *Bacillus*. By selecting the right *Bacillus* strains, you can combat the specific challenges in your Microbial Terroir impacting your birds' performance

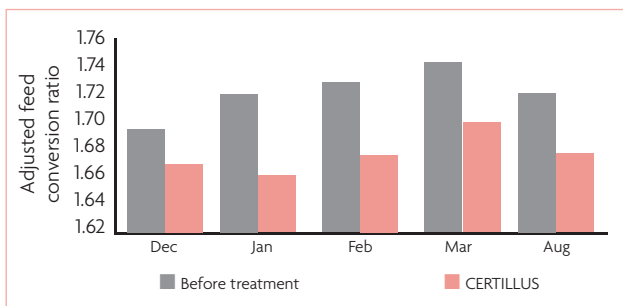
THE PROOF IS IN THE PERFORMANCE

- An in-field study measured pathogen levels over time from more than 2,000 broiler gastrointestinal tract samples. Feeding CERTILLUS effectively changed the microbial landscape to reduce the prevalence of APEC and CP.
- Additional research proved that all *Bacillus* strains are not created equal. In a four-month feed conversion study versus another *Bacillus* product, using CERTILLUS resulted in improved feed conversion, broiler weight gain, and lower instances of APEC and CP in the birds.

KNOW YOUR THREATS

The key to improved productivity is knowing what you are up against, and how best to combat the silent threats unique to your operation. When you tailor a product to your operation's unique microbial makeup, you can combat subclinical disease like APEC and CP before productivity is lost.

Fig. 1. Improved feed conversion ratio using CERTILLUS.



References for all research cited available on request

To learn more, visit www.AHfoodchain.com

Drier litter prevents fly infestation



by Dr Ajeet Bishnoi, Region Manager, Southeast Asia, Middle East, Africa, Arm & Hammer Animal and Food Production

Keeping birds healthy and productive relies in part on controlling the environment in which they live. This goal is not always easy to achieve, considering birds may spend their lives on litter which can be a breeding ground for pathogens and pests, including fly infestations.

Fly infestation is particularly problematic and difficult to control without the use of pesticides. When litter is wet and fly infestations start, stress and production loss are sure to follow.

Fly infestations can also lead to disease. When it comes to fly control, producers face another possible challenge – increased use of chemicals for control can actually lead to chemical resistance among the fly population. In some production systems, chemical use is not allowed.

BREAKING THE CYCLE

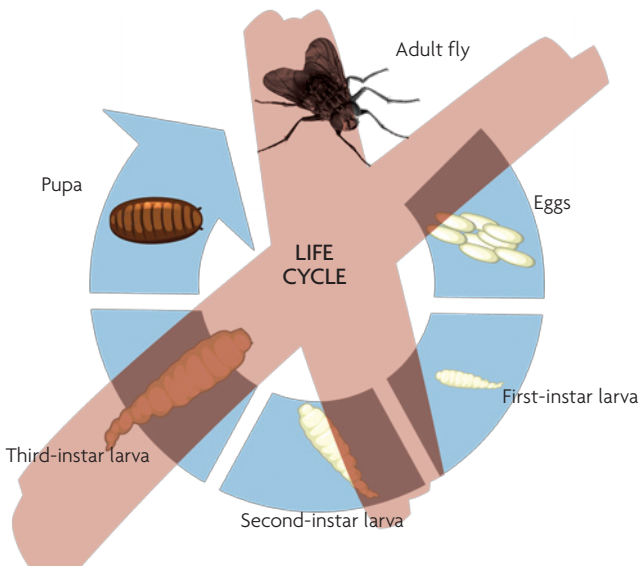
Recent research and on-farms trials have found a more sustainable and non-chemical solution to preventing fly infestations in poultry houses. CERTILLUS™ Eco from Arm & Hammer Animal and Food Production provides resistance-free fly larvae control to help improve bird health and productivity. The product creates drier litter, which helps to break the fly life cycle by preventing development of the larva and pupa.

FLY CONTROL IN ACTION

After six weeks of feeding the product, a recent on-farm trial in a layer operation in India with a 150,000-capacity house indicated a drier litter with improved coning effect and approximately 70% reduction of the fly population.

By effectively reducing moisture, the product prevented larvae and pupa development, breaking the fly cycle and reducing overall fly populations on the farm, allowing producers to spend less time worrying about fly infestations and more time focused on productivity and profitability.

Fig. 1. Breaking the life cycle of a fly.



References for all research cited available on request

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Proven alternatives to antibiotic growth promoters



by Dr Sangita Jalukar, Senior Technical Services Manager, Arm & Hammer Animal and Food Production

As the world trends toward antibiotic-free poultry, it is important to develop research-backed antibiotic alternatives that do not sacrifice performance. The team at Arm & Hammer Animal and Food Production has been diligently researching and developing the best alternatives for flocks looking to reduce or remove antibiotic use.

REMOVE AGP WITHOUT SACRIFICING PERFORMANCE

When one broiler complex was looking to market their broilers as antibiotic-free, they introduced their flock to CELMANAX™ from Arm & Hammer Animal and Food Production as an alternative for antibiotic growth promoters (AGP). The product is a multicomponent, all-natural feed supplement containing Refined Functional Carbohydrates™ (RFCs™).

Contrary to antibiotics, which may kill good as well as bad bacteria and cause dysbiosis, the prebiotic and postbiotic nature of the product promotes the growth of beneficial bacteria. This may also reduce the pathogenic bacteria and thus maintain healthy gut microbiota.

Arm & Hammer Animal and Food Production has conducted multiple studies in a university setting as well as in commercial operations to compare broiler performance while using the product as opposed to AGP supplementation.

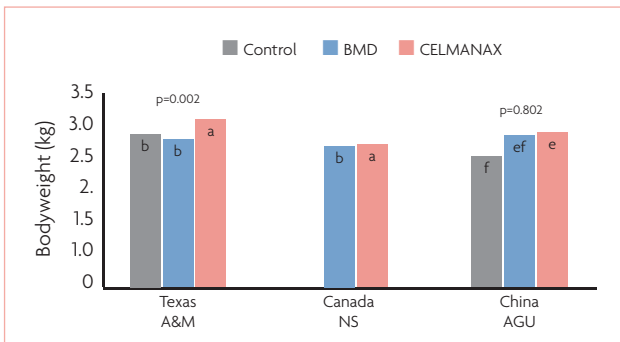
RESEARCH-PROVEN RESULTS

Broilers supplemented with the product had higher body weight (BW) compared to broilers fed the control diet and similar or higher BW compared to broilers fed diets with AGP. No difference in feed conversion ratio was noted between broilers fed the product or AGP.

These results support the application of the product as an alternative to AGP without affecting performance in commercial broiler operations.

Replacing AGP with the product also helps to reduce antibiotic burden and resistance in flocks.

Fig. 1. Comparison of broilers fed AGP versus CELMANAX on body weight.



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