



**Protect your productivity
with customized solutions to
fit your unique challenges.**



#ScienceHearted

Subclinical diseases may be going undetected on your operation.

Across 6,500 samples from broilers and turkeys, 43.6% had subclinical levels of avian pathogenic *E. coli* (APEC).¹

Subclinical disease silently impacts performance.

In poultry, subclinical diseases like APEC cause:

- Greater variation in bird performance
- Lost bird potential



What if you could customize a product to your operation's unique microbial makeup?



BIRD HEALTH.

What if you could combat avian pathogenic *E. coli* (APEC) and *Clostridium perfringens* (CP) to reduce poor performance caused by subclinical disease?



FOOD SAFETY.

What if you could get ahead of *Salmonella* to produce safer meat and eggs?



BOOST PROFIT.

What if you could optimize feed conversion and improve bird productivity?

Only CERTILLUS Targeted Microbial Solutions™ deliver a product uniquely formulated to your specific challenges.

It starts with understanding your Microbial Terroir.

Why your Microbial Terroir matters.

Your Microbial Terroir™ is the microbial makeup of your environment, your flock and litter. Only ARM & HAMMER™ can assess the positive and negative components of your Microbial Terroir and reveal what you need to combat harmful pathogens that slow down animal productivity.

Powered By

Microbial *Terroir*™

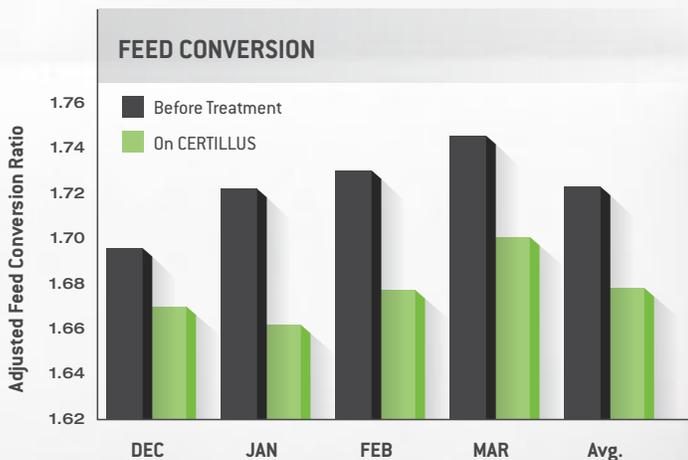
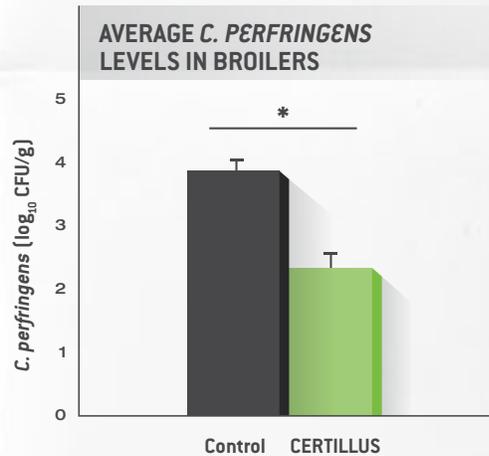
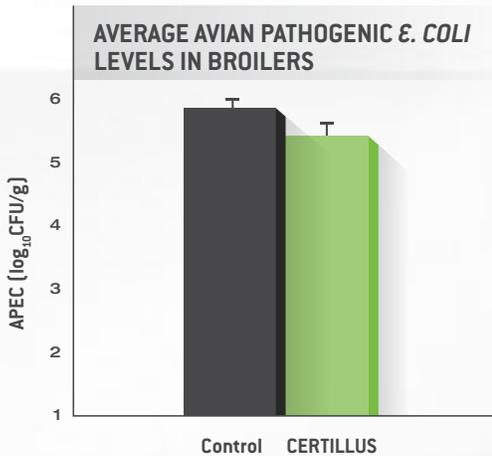
How CERTILLUS gives you the beauty of certainty:

CERTILLUS™, which is comprised of customized solutions to fit your needs, uses proprietary strains of *Bacillus* to make the uncertain certain. By selecting the right *Bacillus* strains you can help to combat your specific challenges that impact bird performance.

Feed CERTILLUS to combat the challenges in your Microbial Terroir, such as avian pathogenic *E. coli*, *C. perfringens* and *Salmonella*.

Change the microbial landscape.

An in-field study¹ 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 avian pathogenic *E. coli* and *C. perfringens*.



Not all *Bacillus* strains are created equal.

In a four-month feed conversion study² versus another *Bacillus* product, CERTILLUS use resulted in improved feed conversion, broiler weight gain and lower instances of avian pathogenic *E. coli* and *C. perfringens*.

CERTILLUS™ delivers Targeted Microbial Solutions.

Targeted Microbial Solutions™ use proprietary strains of *Bacillus* selected to combat the specific challenges in your Microbial Terroir™—which describes the microbial makeup of your environment, your animals and litter. These beneficial strains of *Bacillus* help combat harmful pathogens that are impacting animals' performance.

Get started with your on-farm Microbial Terroir assessment.

Only ARM & HAMMER™ uses your Microbial Terroir to reveal your unique challenges and develop a customized solution for your specific needs. Contact your ARM & HAMMER representative to determine the Targeted Microbial Solutions that are right for your operation.

We're #ScienceHearted and we're here for you.

We're a breed of our own. The ever-curious, science obsessed. Farm kids turned nutritional innovators and microbial pioneers unlocking the power of nature to create solutions that aid health, productivity for you and your animals, and worldwide food security.

- 1 Hutchison E, Anderson S, Vang E, Wujek R, Rehberger T. "Industry-wide survey of avian pathogenic *E. coli* in US broilers." Abstract #382P, presented at Poultry Science Association 2017 Annual Meeting, Orlando, FL.
- 2 Kangas R, Hutchison E, Anderson S, Vang E. Monitoring the efficacy of a *Bacillus* DFM on GI microbiota across time and product formulation. *Internal ABS Poultry Res Review* 2015;61:1-13.