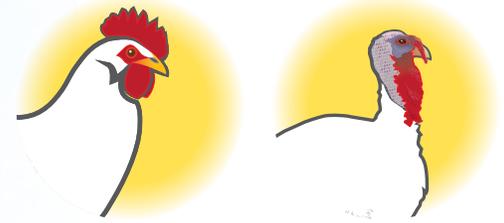


FAQs

CALSPORIN® direct-fed microbial



What is CALSPORIN®?

CALSPORIN® is a direct fed microbial (DFM) feed additive available in North America from Quality Technology International, Inc. (QTI). It has been thoroughly tested in university and commercial settings, in broilers, layers, turkeys, breeding flocks, as well as swine. Research demonstrated that when fed as directed, CALSPORIN® significantly improved body weight, average daily gain, feed conversion, egg shell quality, brown egg shell color, and influenced pathogen counts in fecal and litter samples.

What is the active ingredient in CALSPORIN®?

CALSPORIN® contains the naturally occurring *Bacillus subtilis* strain of bacteria C-3102, which was discovered and patented by the Calpis Co, Ltd. (Tokyo, Japan). It was first marketed for livestock feed in 1986. *Bacillus subtilis* C-3102 is classified as a GRAS organism in the U.S.

How does CALSPORIN® compare to other direct fed microbials on the market?

The strain C-3102 is grown and harvested differently from the way other *Bacillus* microbials are produced. As a result of this proprietary manufacturing method, the CALSPORIN® product contains a significantly greater percentage of the highly active strain. In the screening of 300 different species of bacteria, the C-3102 strain was found to be a more highly active strain than any other competitive *Bacillus* product currently on the market. QTI will be happy to discuss further these differences.

What is the recommended dosage of CALSPORIN® in poultry?

QTI recommends that CALSPORIN® be mixed at a rate which will deliver 3×10^5 CFU per gram of feeds (300,000 CFU per gram of complete diet). Under some conditions a different dose may be recommended.

What concentrations of CALSPORIN® are available in the market today?

CALSPORIN® is available in three different concentrations to accommodate different user mixing and blending situations:

Concentrate:

- BS3N is a 30 billion CFU/gram product mixed at the rate of 9.07 grams per ton of diet (10 grams per tonne).

Blended products:

- 2.0B is 2 billion CFU/gram product mixed at the rate of 0.30 lb. per ton of diet.
- 1.0B is 1 billion CFU/gram product mixed at the rate of 0.60 lb. per ton of diet.

Is CALSPORIN® a GMO product?

No. CALSPORIN® was developed from a naturally occurring strain of *B. subtilis* originally discovered while screening over 300 different species of bacteria. Strain C-3102 was isolated from soil samples found in Japan.

In which countries is CALSPORIN® approved for use?

CALSPORIN® is approved for use in the United States, Mexico, European Union, Japan, and Brazil as well as a number of other countries around the world.

What claims does CALSPORIN® make in the US?

QTI cannot state any claims for CALSPORIN® in the U.S. as that would require an FDA NADA approval as a drug. However, CALSPORIN® has gone through extensive study and testing around the world under a variety of different conditions and growing situations in controlled validated studies. A number of these studies have been published in peer reviewed scientific journals. In those research studies, CALSPORIN® was reported to improve average daily gain and feed efficiency, and/or egg production. Studies also found CALSPORIN® reduced pathogen loads in live animals as well as their litter.

What type of approval does CALSPORIN® have in the EU?

CALSPORIN® is now approved in the EU for use in growing broiler chickens, turkeys, chickens reared for laying, ducks, geese, game birds, pigeons and ornamental birds, and piglets. Producers wishing to export chicken to EU can legally use CALSPORIN® in their poultry diets.

What are the typical improvements in live bird performance that you might expect from feeding CALSPORIN® to broilers?

A meta-analysis of 9 US trials found that on average CALSPORIN® significantly ($P < .01$) improved feed conversion ratio (FCR) by 2-4 points and improved broiler body weights by 2.5%. There was no statistical difference in mortality between the negative controls and CALSPORIN® treated birds. QTI will be happy to share the specific results of these trials upon request.

Is there any value in feeding CALSPORIN® with AGPs?

Yes. Feeding trials conducted at independent research institutes, as well as on-farm trials, have found that CALSPORIN® when fed on top of typical antibiotic growth promoter programs showed an economic improvement over and above the AGPs themselves. Typical improvements include both body weight, feed conversion and livability. QTI will share specific results of the trial upon request.

Is it true that CALSPORIN® can improve egg shell quality?

Yes. CALSPORIN® is patented for its ability to improve egg shell quality. This improvement is well documented by research with reported increases in egg shell thickness in the range of 2-5%. QTI will be happy to share the results of these studies upon request.

Is it true that CALSPORIN® can improve egg shell color?

Yes. CALSPORIN® has been documented to improve brown egg shell color by an average of 0.5 Ghen Corporation (Japan) Fan color units or better in commercial production flocks. Study results available upon request.

Has any work been done showing the benefit of CALSPORIN® on air quality?

Yes. University and field research trials have shown that levels of ammonia volatilization from litter or manure have been reduced when CALSPORIN® is in the diet. Copies of research are available upon request.

How have you measured improvements in pathogen reduction and what have been some of the results?

Results have been documented through independent research published in refereed journals as well as our on-going flock fecal and litter profiling program. QTI can share published, refereed CALSPORIN® research trials upon request. QTI will also be happy to discuss its fecal/litter sampling program as well.

What type of economic payback might I expect if I used CALSPORIN®?

Results will vary depending on feed costs, flock health status and management; QTI will be happy to review and discuss your specific situation with you.

Can CALSPORIN® be used in both mash and pelleted feeds?

Yes. CALSPORIN® contains *Bacillus subtilis* C-3102 in its spore form and has been shown in research to withstand steam pelleting temperatures of 194 degrees Fahrenheit.

For further information, contact:

Quality Technology International, Inc.

1707 N. Randall Rd, Suite 300, Elgin, IL 60123 | P: 847-649-9300
www.qtitechnology.com | info2@qtitech.com

PROVEN TECHNOLOGY

PERFORMANCE. HEALTH. FOOD SAFETY.

www.qtitechnology.com | 847-649-9300

© 2017 Quality Technology International, Inc.
1707 N. Randall Rd, Suite 300, Elgin, IL 60123 | 'CALSPORIN' is a registered trademark of Calpis Co., Ltd.
QTI FAQ 03-11/17



ANIMAL HEALTH & NUTRITION