

EndoSan & Agrivite pH²O

Delivering Organic Acids Through Clean Water
Sutherland Farm, Bolsover



Key Benefits:

- ✓ EndoSan keeps water lines clean, allowing the acid to be delivered effectively
- ✓ EndoSan and Agrivite pH²O dosed together through a twin head pump
- ✓ Improved FCR (Feed Conversion Ratio)
- ✓ Dry Litter
- ✓ Improved Weight Gain
- ✓ No Antibiotics used
- ✓ Record EPEF
- ✓ Simple and easy to use application

Farm Detail

Started by George's father David Adsetts in 1968, George Adsetts is now the director of Sutherland Farms Ltd - a family business that started out as a mixed farm. George has expanded and diversified the business into a dedicated chicken farm and has grown the business - rearing around 500,000 broilers per crop across 3 sites in the Midlands for the independent market. George Adsetts is well respected within the poultry industry, and known for his attention to detail and willingness to embrace new ideas and technology in the industry.

Water acidity was something George wanted to look at to improve performance, and with EndoSan keeping the water lines clean, it was possible.

Site Assessment/Planning

Following an assessment of the site and water system, a Select 388 Double Head Doser had been fitted and EndoSan had been used for shock dose and constant dose in the previous crop. Water tests had been carried out successfully throughout that crop and this gave us the assurance that we could use an Organic Acid in the second crop, because the water lines would be free from any bio-film build up that could react with the Acid. Endo Enterprises carried out a stability test with EndoSan and Agrivite pH²O to make sure there was not an adverse reaction with either product. Both products passed the test which meant that we could constant dose both EndoSan and Agrivite pH²O throughout the entire crop using the Twin-Head Select Doser. By taking a 1000ml water sample out of the lines at the end of the previous crop with 20ppm EndoSan in, we were able to check the pH of the water using a pH meter. The pH of the water at George's farm was confirmed to be 7.7pH. By manually adding Agrivite pH²O to the sample whilst checking the pH, we reduced the pH of the solution down to 4.6pH using the dilution ratio of 840ml per 1000L.

EndoSan & Agrivite pH²O Set-Up

Prior to the chicks being placed, the water system was shock dosed with EndoSan to a concentration of 5,000ppm as Hydrogen Peroxide (H₂O₂) and confirmed at the end of each drinker line in each poultry house using the EndoSan Peroxide Test Strips. The system was isolated and the solution left to reside for 24 hours.

One side of the Select Doser was then set to achieve a continuous rate of EndoSan at 20ppm as Hydrogen Peroxide (H₂O₂). The other side of the Select Doser was set to achieve a continuous rate of Agrivite pH²O at 840ml per 1000L. Prior to placement, each drinker line was then flushed through to ensure the concentrated dose of EndoSan used for the shock dose had been pulled out of the line and the EndoSan and Agrivite pH²O for constant dose had been pulled through to the end of each line. This was proved by confirming EndoSan at the end of each drinker line at 20ppm as Hydrogen Peroxide (H₂O₂) using EndoSan Peroxide Test Strips.

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Crop Data

Chicks were placed early February. All chicks were Ross 308 with a 35+ week Parent Stock.

Production Results

- ✓ No Antibiotic's used throughout crop
- ✓ Increase in water and feed consumption of around 10%
- ✓ Increased Weight - Averaging 2.87kg at 40.1 days, which is an increase of 89g per bird over his 12-month average at the same age. Taking into consideration Mortalities, this is an overall increase in weight of 12,000kg for the crop.
- ✓ FCR of 1.68 which was a record in 12 months with his 12-month average being 1.76 and his best being 1.73.
- ✓ EPEF of 401 compared to a 12-month average of 372. A record EPEF for a crop with Mortalities over 5%
- ✓ Litter held up well and maintained dry
- ✓ Mortalities at 5.8% due to leg culls towards end of crop as a result of increased weight.

Conclusion

The addition of EndoSan being constantly dosed for maintenance disinfection and shock dosing for biofilm removal has resulted in clean water and drinker lines. When administering any product such as Acids, Vaccines, Medication etc. it is important that the delivery method (drinker lines) are clean for the product being administered to do delivered to the bird un-tainted. In this trial, it was important that we maintained clean water to allow the Agrivite pH²O to be administered correctly to the birds. Agrivite pH²O offered a perfect combination of acids to support the gut, without reducing palatability. The Propionic Acid acts as a 'door opener' which weakens the bacteria cell wall membrane and allows the Formic Acid to enter as the 'Killer'. Formic Acid is a strong anti-microbial against gram negative bacteria like e-coli and salmonella. The Phosphoric Acid helps to lower the pH effectively which results in the Formic Acid being more effective as a 'killer' because it needs to work in an acidic environment. The Citric acid also works as an acidifier but is largely used to increase palatability which in turn increases water intake as seen in this trial. By maintaining a healthy condition in the gut, the bird has fewer challenges which results in them using their energy for production rather than fighting diseases. This has been proven in the results of this crop. The birds converted their feed better, a healthy gut means firmer dropping shown in dry litter. The birds also performed well above target weight. EndoSan and Agrivite pH²O complement each other perfectly, and it is important to remember that without clean water and a clean delivery method, the Agrivite pH²O would not have performed.

Testimonials



'The EndoSan and Agrivite pH²O combination has had a dramatic positive impact on feed conversion and litter quality'

'Best ever EPEF when we've had that amount of mortalities'