

OREGO-STIM IN WATER SUPPORTS PERFORMANCE DURING COCCIDIAL CHALLENGE

SUMMARY

- ✓ Orego-Stim did not interfere with the development of immunity to *Eimeria* following anticoccidial vaccination as shown by lesion scoring following coccidial challenge.
- ✓ Orego-Stim administered in water lessened the intestinal damage from coccidia leading to increased weight gain and lower lesion scores during challenge compared to Robenidine treatment.

BACKGROUND

- ✓ *Eimeria* as ubiquitous in the environment and there is no cross protection between *Eimeria* species.
- ✓ Traditionally coccidiosis control has been via the use of chemicals, ionophores and vaccines.
- ✓ The global cost of coccidiosis, including drug related treatment, is estimated to be \$2-3 billion annually (Zhang *et al.*, 2013).
- ✓ Orego-Stim is a high quality, plant based eubiotic, containing 100% natural oregano essential oil.

TRIAL DESIGN

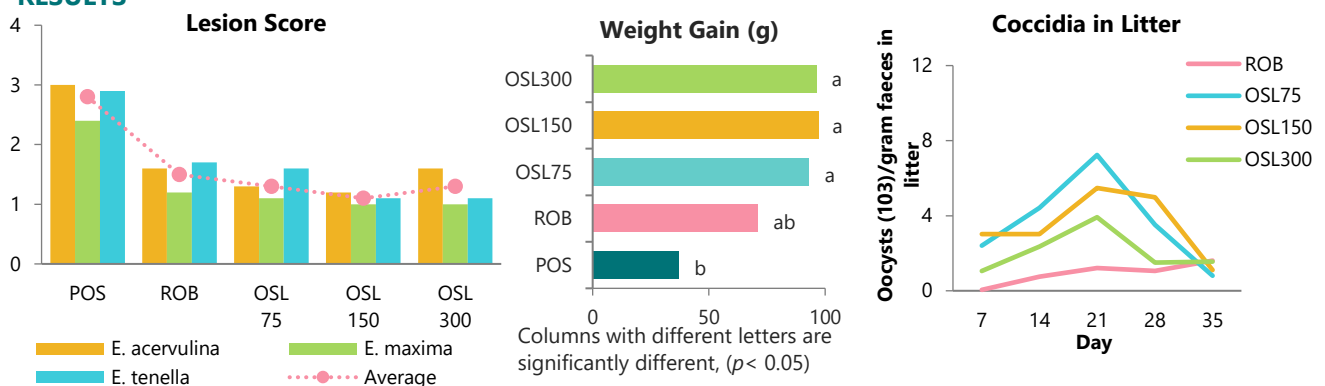
A study was conducted at Southern Poultry Research Inc, Georgia, USA. Birds (Cobb 500) were reared from 0-42 days in floopen on reused litter (see Table 1 for details). On Day 0, all birds were spray-vaccinated in the hatchery with a commercial coccidiosis vaccine (Coccivac-B, Merck Animal Health USA). On Day 21, 5 birds/pen were transferred to cages, challenged with *Eimeria*¹ and 6 days later euthanized for lesion scoring. A Positive Control of cage-reared, naive, coccidia free birds were included to confirm an *Eimeria* challenge. Weight gain over the challenge period was determined.

Table 1. Treatment details

Treatment	Floorpen phase		Challenge phase	
	No. birds/pen	No pens	No. birds/cage	No. cages
Positive control [POS] ²	-	-	5	8
Robenidine (Robenz, 33 ppm) [ROB]	55	8	5	8
Orego-Stim (75ml/1000l) [OSL75]	55	8	5	8
Orego-Stim (150ml/1000l) [OSL150]	55	8	5	8
Orego-Stim (300ml/1000l) [OSL300]	55	8	5	8

¹ Per dose, approximately 100,000, 75,000, 50,000 oocysts of *E. acervulina*, *E. maxima* and *E. teniella* respectively; ² Challenge phase only.

RESULTS



- ✓ ROB and OSL groups reduced gut lesions compared to POS. All OSL groups had lower lesion scores than ROB, with OSL 150 treatment having the lowest.
- ✓ Weight gain was significantly higher in all OSL groups over the challenge period compared to POS.
- ✓ Coccidial oocysts circulated in the litter at higher levels with OSL compared to ROB, allowing birds to build natural immunity to *Eimeria*.
- ✓ Orego-Stim Liquid administered in water supports bird performance during periods of intestinal stress, such as anticoccidial vaccination or coccidial challenge.

