



EMPIRE HOLDING (PTY) LTD
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Case Study:
 Broilers

No antibiotics. No residues. No restrictions.

Profits.

Paraná, Southern Brazil

October 2014

Breed: Cobb 500

Duration: 46 days

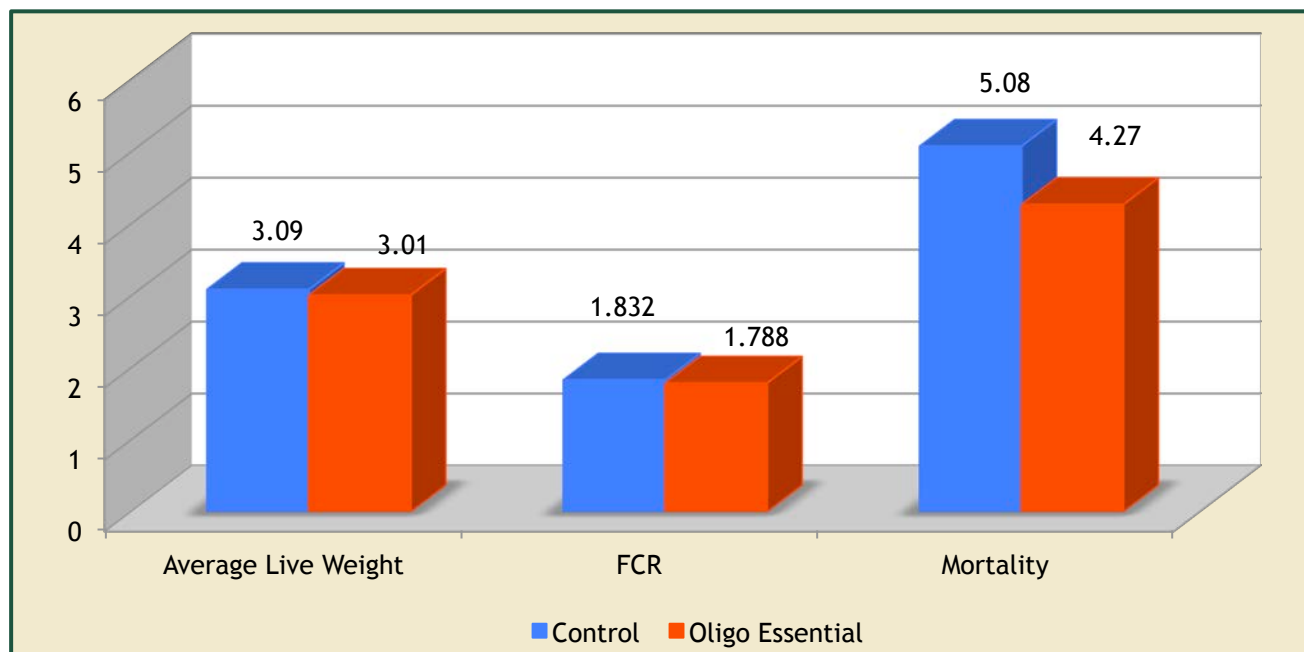
Number of birds:

94,300 Oligo Essential (1.5kg/MT), -50kcal

26,900 Control (no change to ME)



Objective: To evaluate the effects and profitability of Oligo Essential supplementation while decreasing ME by 50kcal/kg on broiler performance. Control group did not alter ME content in diet.

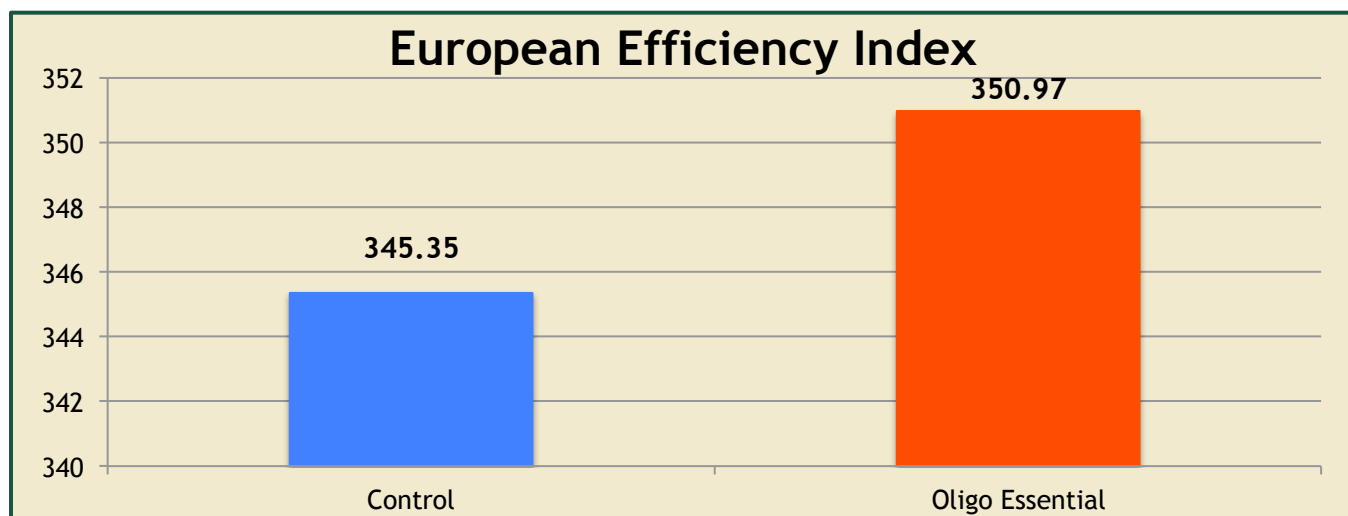


Although the bird density was higher in the houses with Oligo Essential than in the control houses, both the mortality and the FCR were better for the birds supplemented with Oligo Essential.

Treatment	Weight, kg	ADG, g/d	FCR	Mortality, %	Birds/m ²
Control	3.09	66.62	1.832	5.08	13.16
Oligo Essential	3.01	65.55	1.788	4.27	13.97

The **European Efficiency Index (EEI)** uses body weight, feed conversion, liveability and age with the result expressed as %:

$$\text{EEI} = (\text{body weight} \times \text{liveability}) / (\text{feed consumption per 1 kg of gain} \times \text{number of days of fattening})$$



Cost/Benefit Analysis

	Oligo Essential	Control
Weight (kg)	3.01	3.09
FCR	1.788	1.832
Cost of Oligo Essential (USD/kg)	\$12.00	N/A
Cost of Feed (USD/MT)	\$448.00	\$430.00
Adjusted cost of feed (-50kcal/kg)	\$440.83	\$430.00
Feed Consumed per bird (kg)	5.382	5.661
Cost of feed per bird (USD)	\$2.373	\$2.434
Profit per bird (USD)	\$0.062	
Total Profit for Trial (USD)	\$5,814.64	

Conclusion

While supplementing Oligo Essential, it is not only possible to remove 50kcal of ME, but improvements in FCR and EEI can be accomplished while doing so. Even though there was no follow up in the slaughter plant, necropsies done during the test showed that the birds supplemented with Oligo Essential had more fat on their carcasses, which would indicate that the amount of energy supplied by Oligo Essential was more than the 50 kcal.