



# Live Cattle Hide Study – Five-day Model<sup>1</sup>

## PURPOSE

Determine the efficacy of Finalyse® on the hides of live cattle, using the spray system found in commercial beef-processing facilities.

## STUDY DESIGN

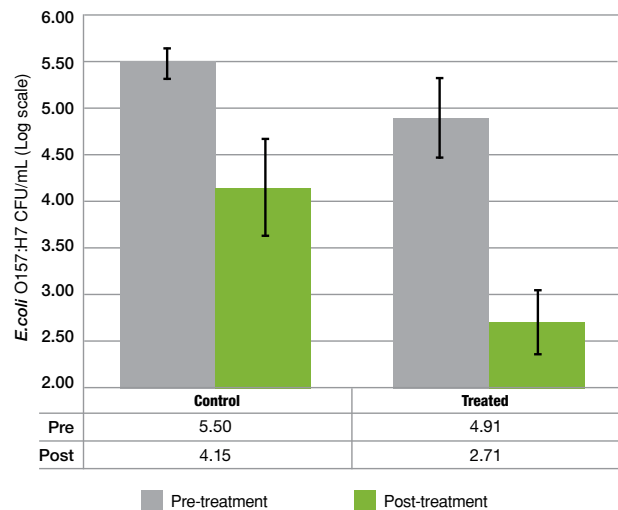
- 50 heifers weighing approximately 1,000 lbs were used in the study
  - 10/day, 5/treatment group
- The left and right side of the rump (1,000 cm<sup>2</sup>) of live cattle were inoculated with *E. coli* O157:H7
- Study conducted over a 5-day period
  - Day 1 was excluded due to the low numbers of bacteria recovered on the control animals
- Samples taken 45 minutes post-inoculation to establish pre-treatment levels of *E. coli* O157:H7
- Cattle were treated using the Finalyse Application System™
  - Control water wash
  - Finalyse solution
- Samples were taken 45 minutes post-treatment

## RESULTS

- Cattle treated with Finalyse exhibited a statistically significant decrease ( $P < 0.01$ ) in *E. coli* O157:H7 compared to controls at 45 minutes post-treatment
- Finalyse caused, on average, a 0.85<sub>Log</sub> CFU/mL mean reduction in *E. coli* O157:H7 when directly comparing post-treatment values
- Statistical analysis using pre-treatment Log values as a covariate found the post-treatment least square mean value decreased 1.03<sub>Logs</sub> compared to the control

## DATA

**Table 1. Cumulative results**



**Table 2. Statistical results**

	Post-treatment least square means, adjusted for pre-treatment values		P-value	
	Control	Finalyse	Baseline	Treatment
Pooled days 2-5	3.99	2.96	<0.01	<0.01

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<sup>1</sup>Elanco Study No. EL1102. 2011. Data on file.

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