An Evaluation of Feeding TomaHawk iL Zn

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About the Trial

Animals were allocated at arrival at the calf grower facility. Animals in the TomaHawk iL Zn group received a 20ml/animal oral dose of TomaHawk iL Zn at arrival processing, standard milk replacer including TomaHawk iL Zn at a dose of 3mL/feeding/animal (6ml/animal/day) during the small-hutch phase (average 32 days, range 29 to 35 days), and a standard soybean meal grain including TomaHawk iL Zn (6ml/animal/day) during the large-hutch phase (average 54 days, range 51 to 71 days). Animals in the Control group (690 animals) received standard milk replacer and standard soybean meal grain as per standard calf grower protocol.

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Objective

The objectives of this study were to determine the relative effects of including Tomahawk il Zn in feeding programs for grower dairy calves in the hutch phase on animal health and calf grower performance outcomes.

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Experimental Design

- 1439 grower dairy calves
- TomaHawk iL Zn : 719 animals
- Control: 720 animals

- Individual animal was the experimental unit for the ARR to SHIP Individual data.
- Small hutch row was the experimental unit for the ARR to Out of Small Hutch data
- Large hutch row (2 small hutch rows) was the experimental unit for the ARR to Out of Large Hutch data.

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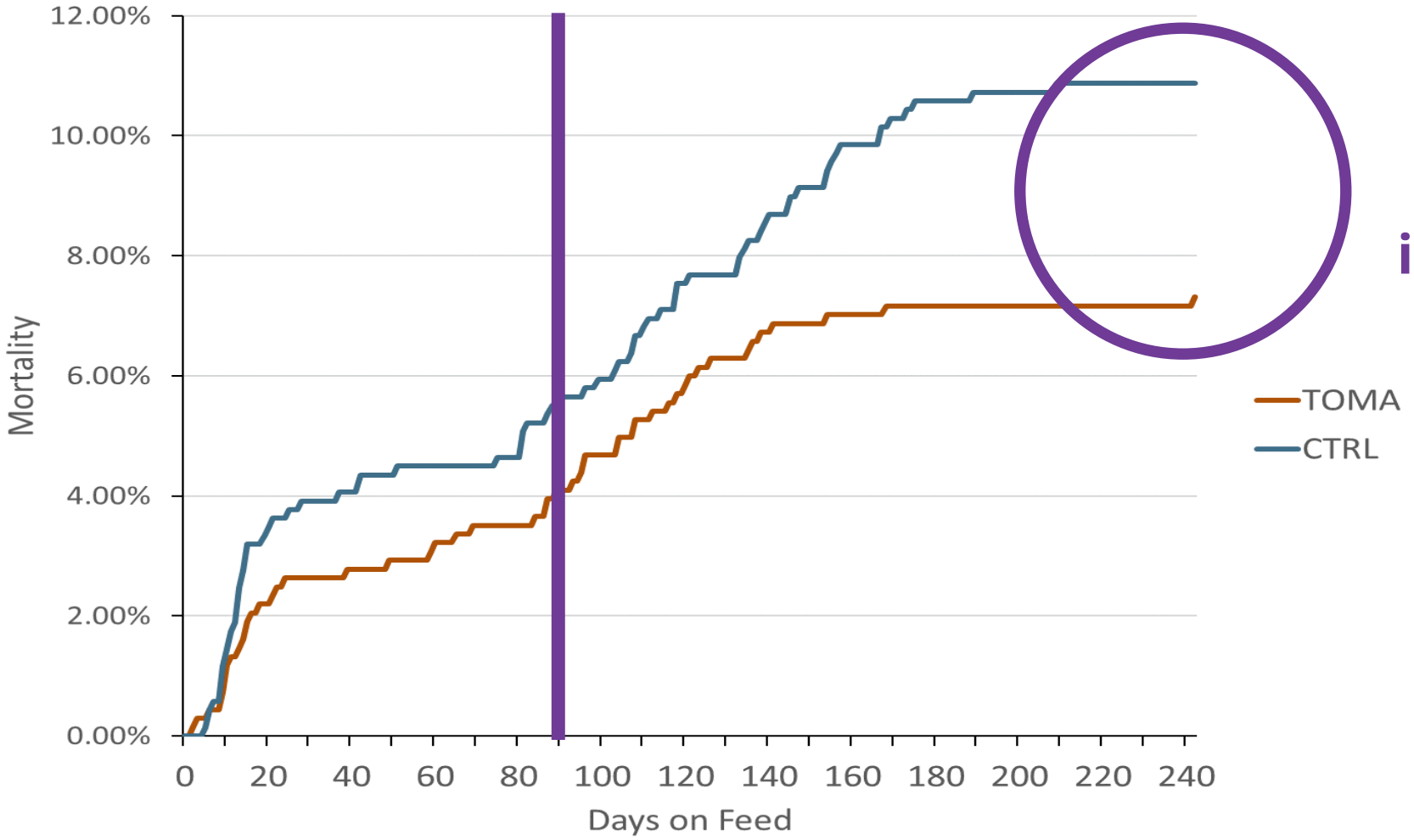
Mortality Curve

TomaHawk iL Zn

Day 1-30: In Milk

Day 31-90: In Grain

Day 91-240: NO Product



33% Reduction in Mortality

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Conclusions

- Arrival to OOHs
  - Initial UF (BRD) Treatment reduction, 15.4% (P<0.05)
  - 1st UF Treatment relapse reduction, 3.67% (P<0.10)
  - Initial GID Treatment reduction, 14.55% (P<0.10)
  - 1st GID Treatment relapse increase, 2.83% (P<0.10)
  - Overall Mortality, NS

  - Wt Gain reduction, 2.6 lb/hd (P<0.05)
  - ADG reduction, 0.08 lb/hd (P<0.1)
  - Feed Intake increase, 0.02 (P<0.1)
  - Feed Efficiency, NS

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Conclusions

- Arrival to Ship
  - Animal Health Outcomes
    - 1st Relapse Reduction, 4.56% (P<0.10, trend)
    - Initial GID Treatment 13.8% reduction (P<0.10)
    - 1st GID Relapse, increase 3.0% (P<0.10)
    - Overall Mortality reduction, 3.56% (P<0.05)
    - Total Outs (Mortality + Culls) reduction, 3.84% (P<0.05)
  - Growth Performance Outcomes
    - Wt gain, DOF, ADG No significant differences (P>0.10)
  - By Total Protein Class
    - TP <5.60 g/dl: Total Outs reduction, 9.71% (P<0.05)

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Economic Analysis

Economic analysis summary from a study evaluating the effects of feeding TomaHawk il Zn in the hutch phase in grower dairy calves

Description	TomaHawk iL Zn vs Control
Overall Mortality	$9.32
Program Cost	$3.92
Interest Cost	$0.06
Net Economic Advantage	**$5.34**

1. Animals were allocated at arrival at the calf grower facility. Animals in the **TOMA** group (684 animals) received a 20 mL/animal oral dose of TomaHawk ZN (MicroBasics, Austin, Texas) at arrival processing, standard milk replacer including TomaHawk ZN at a dose of 3 mL/feeding/animal (6 mL/animal/day) during the small-hutch phase (average 32 days, range 29 to 35 days), and standard soybean meal grain including TomaHawk ZN (6 g/animal/day) during the large-hutch phase (average 54 days, range 51 to 71 days). Animals in the **CTRL** group (690 animals) received standard milk replacer and standard soybean meal grain as per standard calf grower protocol.
2. All values are expressed in USD/animal and represent the economic impact of observed significant ($P < 0.050$) differences in animal health and calf