

# Research Notes P-90

Arm & Hammer Animal Nutrition



## Evaluation of the effect of CELMANAX Liquid on broiler water line sanitation

CELMANAX™ is a multicomponent, all-natural feed supplement containing Refined Functional Carbohydrates™ (RFC™) that has Generally Recognized as Safe (GRAS) status as a feed ingredient.

### STUDY OVERVIEW

- The study was designed to evaluate the effects of CELMANAX on broiler performance and water line sanitation during the withdrawal phase.
- Standard water line sanitation was performed before day-old birds were placed in pens.
- Cobb 500 male broilers at 45 days of age were randomly assigned to 24 pens with 25 birds/pen. Twelve pens were randomly assigned to each of two treatment diets:
  - Control water
  - CELMANAX Liquid at 250 ppm in drinking water from 45 – 52 days of age
- During the study broiler performance was measured and water line sanitation was analyzed.
- Starting at 45 days and thereafter at two-day intervals, water samples were collected and analyzed for aerobic bacteria, yeast and mold growth.

### RESULTS

- Weight gain and mortality-adjusted feed conversion ratio were similar between the two groups. No significant differences were recorded between treatments related to water quality. Water application of CELMANAX Liquid had no negative impact on water line sanitation.

Treatment	Log <sub>10</sub> APC	Log <sub>10</sub> Yeast	Log <sub>10</sub> Mold
Control	3.89 ± 0.31	0.13 ± 0.06	0.06 ± 0.04
CELMANAX	4.30 ± 0.36	0.28 ± 0.08	0.10 ± 0.06
P-value	>0.05	>0.05	>0.05

### CONCLUSION

- Under standard commercial management practices of water sanitation and cleaning, CELMANAX Liquid can be safely administered using water drinker lines for up to seven days.



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Adapted from a study done by Dr. Watkins et. al, University of Arkansas, USA

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