



Diamond V®

# FOCUS ON RESEARCH

## DIAMOND V YEAST CULTURE SUPPORTS THE HEALTH AND SURVIVAL OF DAIRY CALVES



### RESEARCH SUMMARY

A summary of research conducted at the University of California-Davis to evaluate the effects on performance, health and immunocompetence of feeding yeast culture to dairy calves.<sup>1</sup>

- Holstein calves (n = 512; 2±1 d of age) were randomly assigned to receive no yeast culture (control; 223 females and 34 males) or Original XP™ at 2% of grain dry matter (XP; 218 females and 37 males).
  - Calves were fed 1.9 L of colostrum three times in the first 24 hours and pasteurized milk thereafter until 60 days.
  - Grain intake was measured on day five of each week, with body weight measured on days five, thirty and sixty-eight.
  - Daily attitude and fecal scores were taken with incidence and duration of health disorders and treatments recorded.

### RESULTS

	Control	Original XP	P-value
Mean Fecal Scores <sup>2</sup>	1.47	1.44	0.06
Diarrhea <sup>3</sup> , %	99.60	97.30	0.07
Fever <sup>4</sup> , %	41.60	34.10	0.08
Survival, %	87.90	92.50	0.05

<sup>1</sup> Magalhaes VJA, Susca F, Branco AF, Yoon I, Santos JEP. 2008. Effect of feeding yeast culture on performance, health, and immunocompetence of dairy calves. Journal of Dairy Science. 91: 1497-1509.

<sup>2</sup> 1=firm; 2=soft or moderate consistency; 3=runny or mild diarrhea; 4=watery and profuse diarrhea

<sup>3</sup> Presence of watery feces for at least 2 days during the study

<sup>4</sup> Rectal temperature > 39.5°C

DAIRY

BEEF

POULTRY

SWINE

EQUINE

AQUA

PET

SPECIALTY

MULTI-SPECIES

	Control	Original XP	P-value
Raising Costs, <sup>1</sup> \$/Calf			
Pasteurized Milk	28.50	31.10	0.01
Grain	14.40	15.60	0.19
XP	0	1.00	<0.001
Labor for Feeding	26.20	28.50	0.01
Vaccination	1.18	1.32	0.01
Health Treatment	2.77	2.64	0.51
Total Raising Costs, \$/Calf	71.80	78.90	0.01
Income with Calf Value, <sup>2</sup> \$/Calf	402.90	458.20	0.14
Net Income, \$/Calf	331.10	379.40	0.17

- Income was increased by \$48 per calf when Original XP was included in the ration

<sup>1</sup> Costs associated with each of items listed. The higher raising cost for XP calves was mainly due to the decreased mortality, which resulted in more total milk and grain consumption and increased vaccination and associated labor.

<sup>2</sup> A dead calf represented a lost opportunity of \$500/heifer and \$100/bull, which corresponded to the market price of newborns. A live calf at 70 d of age represented a net gain of \$750/heifer and \$300/bull.

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