

VIGORTONE PRIME'ER TRIAL RESULTS

Tremendous metabolic and physiological changes occur within dairy cows as they transition from gestation to lactation. The liver is a key organ involved in this transition. Vigortone's Prime'er is designed to reduce accumulation of fatty acids that keep the liver from operating at peak efficiency during this critical stage of production.

TRIAL 1

This trial was conducted with a medium size herd (250 head) in Iowa. Forty-four dry cows were alternately assigned to the close-up dry cow ration with or without Prime'er as they came into the close-up dry cow group. Dry cows were in the close-up group for approximately three weeks. After calving, the cows were maintained on a fresh cow ration with or without Prime'er for one week before being moved to the lactation group.

All cows were placed in the same lactation group after leaving the fresh group pens. Blood samples were collected within one week before calving and during the first week after calving. Blood samples were analyzed for nonesterified free fatty acids (NEFA – an indicator of fat mobilization) and beta hydroxybutyrate (BHBA – an indicator of ketosis).

Prefresh Cows – Blood Samples

	Control	Prime'er
NEFA, mEq/L	0.41 ^a	0.28 ^b
BHBA, mg/dL	4.23	4.37

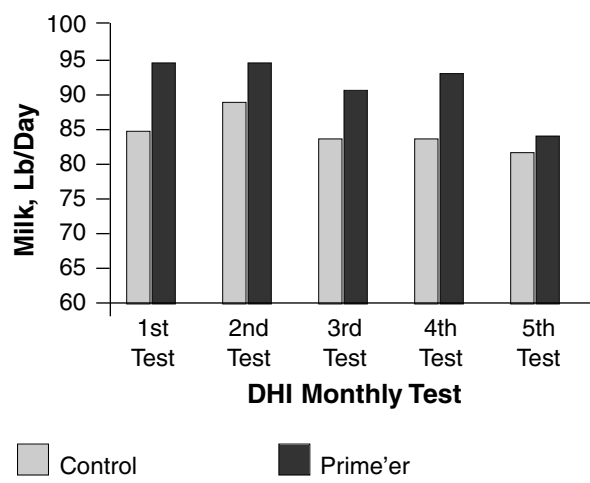
^{a,b} Means differ @ P<0.10

Postfresh Cows – Blood Samples & Performance At First Test Period

	Control	Prime'er
NEFA, mEq/L	0.74 ^a	0.51 ^b
BHBA, mg/dL	6.27 ^a	4.95 ^b
Milk, lb/d	83.7 ^a	92.9 ^b
SCC	226 ^a	67 ^b

^{a,b} Means differ @ P<0.05

Milk Production



By using a conservative rule of 200 lb more milk in 305 days for each 1 lb increase in peak milk, the projected additional milk due to feeding Prime'er in this herd is 1,840 lb. Assuming a milk price of \$12/cwt, this would result in an additional \$220 per cow or a better than 10:1 return on the investment in feeding Prime'er. This does not consider any quality premiums obtained from lower somatic cell count or benefits from earlier breedbacks.

(continued)

TRIAL 2

This trial was conducted with a large (2,500 head) dairy in New Mexico. Prior to the start of feeding Prime'er in August 2005, the transition cows had been supplemented with a dry propylene glycol product. Data shown for this trial compares performance of cows

that calved April through July 2005 (without Prime'er in the transition rations) to performance of cows that calved from September 2005 through January 2006 (with Prime'er in the transition rations).

Production Responses When Prime'er Was Added To The Transition Rations

<u>Month Calved</u>	<u>% Cows</u>	<u># Cows</u>	<u>305ME Milk Production, lb*</u>	<u>Peak Milk, lb**</u>	<u>Relative 305ME, %***</u>	<u>SCC (1,000)****</u>
Without Prime'er						
April 2005	6	145	24,095	100	91	255
May 2005	9	195	24,381	104	94	224
June 2005	8	186	23,725	103	95	168
July 2005	8	182	23,946	97	97	175
Average			24,037	101	94.3	206
With Prime'er						
September 2005	8	181	24,475	102	101	133
October 2005	9	206	24,093	102	100	221
November 2005	9	202	25,977	103	103	107
December 2005	9	197	25,930	108	100	88
January 2006	9	204	26,059	103	100	209
Average			25,307	103.6	100.8	152

*305 day projected milk production based on second test day production

**Peak milk production

***Relative 305ME compares individual cows to the herd average (relative 305ME of 100 = average production)

****SCC @ first test day after freshening

In Trial 2, the cows on Prime'er had an increase of 5.3% 305-day projected milk production based on second test day production, compared to the cows without Prime'er. The cows on Prime'er showed an advantage of 2.6 lb higher peak milk production, and their relative 305ME changed from less than the herd average to greater than the herd average. The somatic cell count was 26% lower with the cows on Prime'er. The reduction in SCC when feeding Prime'er was

observed in both Trial 1 and Trial 2. This may be due to an improved immune status of cows with healthier liver function.

The cows in Trial 2 were not stressed at the beginning of the trial. The milk production and somatic cell counts on the cows without Prime'er are very respectable figures. Based on these trial results, Prime'er can pay a big return.



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