

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

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

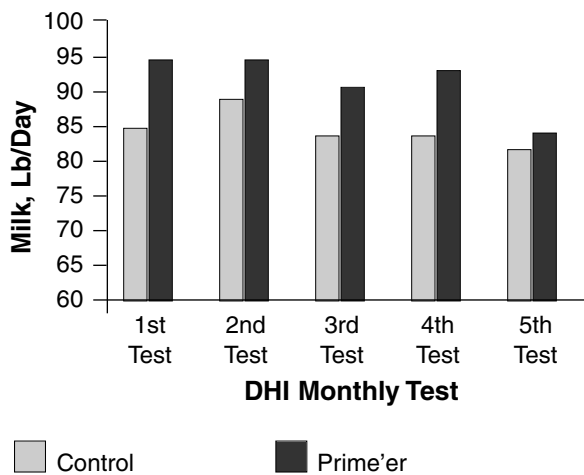
^{a,b} Means differ @ P<0.10

Postfresh Cows – Blood Samples & Performance At First Test Period

	<u>Control</u>	<u>Prime'er</u>
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.

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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 September 2004 through July 2005 (without Prime'er in the transition rations) to performance of cows that calved from September 2005 through July 2006 (with Prime'er in the transition rations).

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

<u>Without Prime'er</u>	<u># Cows</u>	<u>Milk, lb 1st test day</u>	<u>Milk, lb 2nd test day</u>	<u>305ME Milk Production*</u>	<u>SCC (1,000)**</u>
Sept 04	306	72	86	24,010	145
Oct 04	354	72	88	25,449	213
Nov 04	340	67	91	25,248	141
Dec 04	344	78	95	24,338	301
Jan 05	302	81	94	23,910	145
Feb 05	210	77	88	23,790	245
Mar 05	162	75	93	23,129	145
Apr 05	235	73	88	24,100	259
May 05	250	79	96	24,412	232
Jun 05	201	86	93	23,652	170
July 05	208	<u>69</u>	<u>86</u>	<u>23,637</u>	<u>136</u>
AVERAGE		75	91	24,231	197
With Prime'er					
Sept 05	189	80	90	24,591	154
Oct 05	203	71	89	23,977	125
Nov 05	207	75	98	26,082	108
Dec 05	205	85	102	25,887	84
Jan 06	204	78	101	25,969	212
Feb 06	187	83	99	25,429	162
Mar 06	150	86	106	26,020	209
Apr 06	185	84	105	26,056	140
May 06	179	84	100	25,787	112
Jun 06	204	85	104	26,558	68
July 06	239	<u>86</u>	<u>105</u>	<u>27,948</u>	<u>118</u>
AVERAGE		82	100	25,906	134

*Based on 2nd test date production records

**Based on 1st test date data

During the first 11 months following implementation of feeding Prime'er, cows averaged 7 lb more milk on the first test day and 9 lb more milk on the second test day after calving compared to cows that calved during the 11 months prior to feeding Prime'er. Cows receiving Prime'er averaged 1,675 lb greater 305ME projected from their second test day milk production.

The somatic cell count averaged 32% less on the first test day after calving for cows

fed Prime'er compared to cows not fed Prime'er.

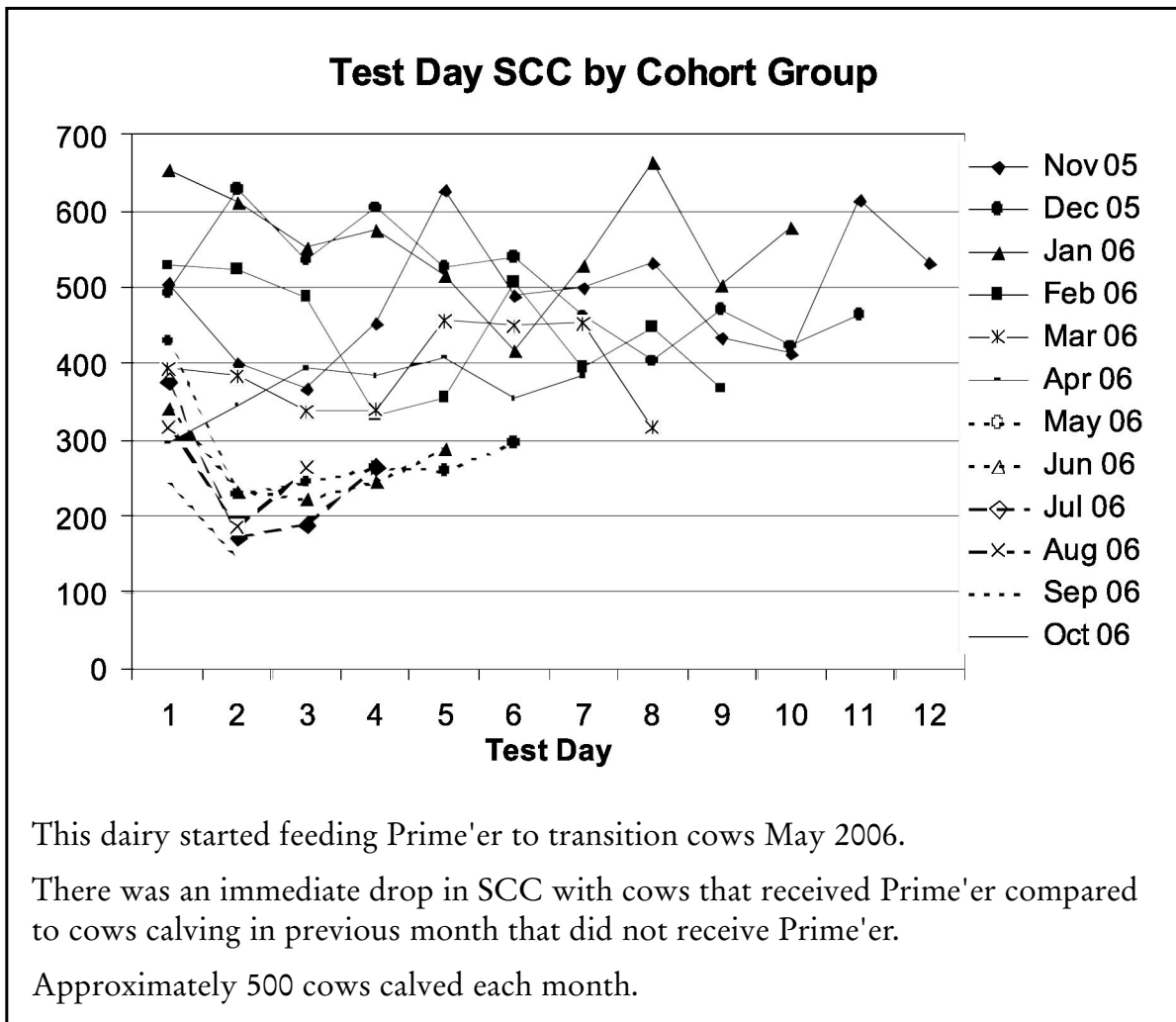
The herds involved in Trial 1 and Trial 2 were not stressed or experiencing major metabolic problems. The milk production and somatic cell counts of the cows before starting on Prime'er are very respectable figures. Based on these trial results, Prime'er can pay a big return, even in herds that are already doing a good job managing transition problems.

(continued)

TRIAL 3

This data was collected from a large (6,000 head) dairy in Idaho. This herd was dealing with high SCCs. In order to reduce the SCC, they had implemented several practices such as feeding selenium yeast. The graph below presents SCC by cohort group over time. Each cohort group was composed of the cows that calved within each month between November 2005 and October 2006. Feeding Prime'er to the transition cows was begun in May 2006. Solid lines on the graph represent

SCC of cohort groups that did not receive Prime'er. Dotted lines represent SCC of cohort groups that did receive Prime'er. The SCC of each cohort group gradually improved between November 2005 and April 2006 due to management and environmental improvements. However, a large drop in SCC was noted for all cohort groups that were fed Prime'er in their transition diets beginning May 2006 and later.



This dairy started feeding Prime'er to transition cows May 2006.

There was an immediate drop in SCC with cows that received Prime'er compared to cows calving in previous month that did not receive Prime'er.

Approximately 500 cows calved each month.