



Your All-Natural Solution.

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## Dairy Field Trials

### Creekside Dairy Study

- 500 head of high producing Holstein cows were tested over 6mos in Escalon, CA
- Cows were housed in adjacent pens in freestall barns with 125 cows per pen
- All cows received the same diet for the duration of the trial
- Treatment groups received an additional 1oz of Matrix blended in a TMR daily
- Data was averaged across 17 weeks with a 60 day pre-test period used as a covariate to adjust for treatment response
- All milk yield data is reported as 150 day standardized milk yield to adjust for DIM
- The study was conducted at Creekside Dairy, Escalon, CA

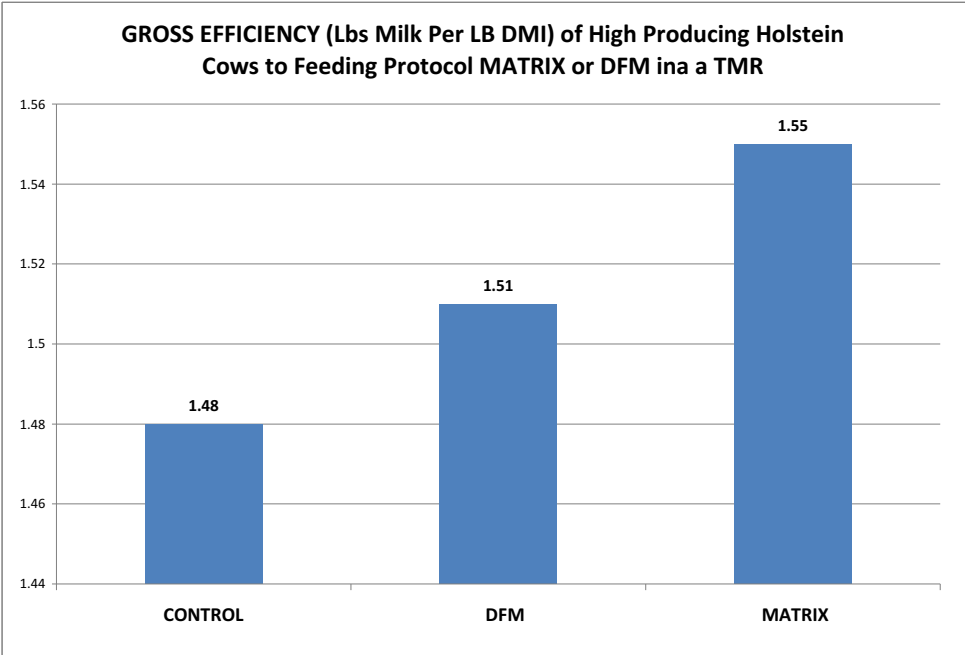
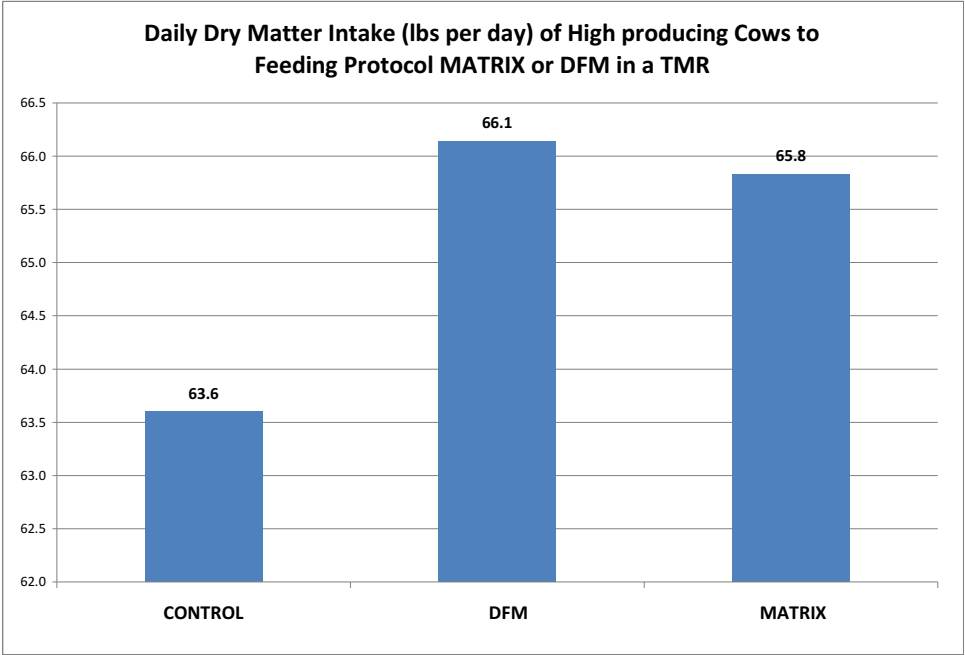
MEASUREMENT	MATRIX	CONTROL	NET CHANGE
Milk Yield, lbs	102.3 <sup>a</sup>	94.1 <sup>b</sup>	+ 8.2
Milk Yield, % Increase			+ 8.7
DMI, lbs	65.8 <sup>c</sup>	63.6 <sup>d</sup>	+ 2.2
DMI, % Increase			+3.5
Gross Efficiency (M/DMI)	1.55	1.48	+ .07
Gross Efficiency, % Increase			+4.7
Cost of MATRIX <sup>®</sup> , per hd per d	20 cents	-	
ROI*			<b>7.9 to 1</b>

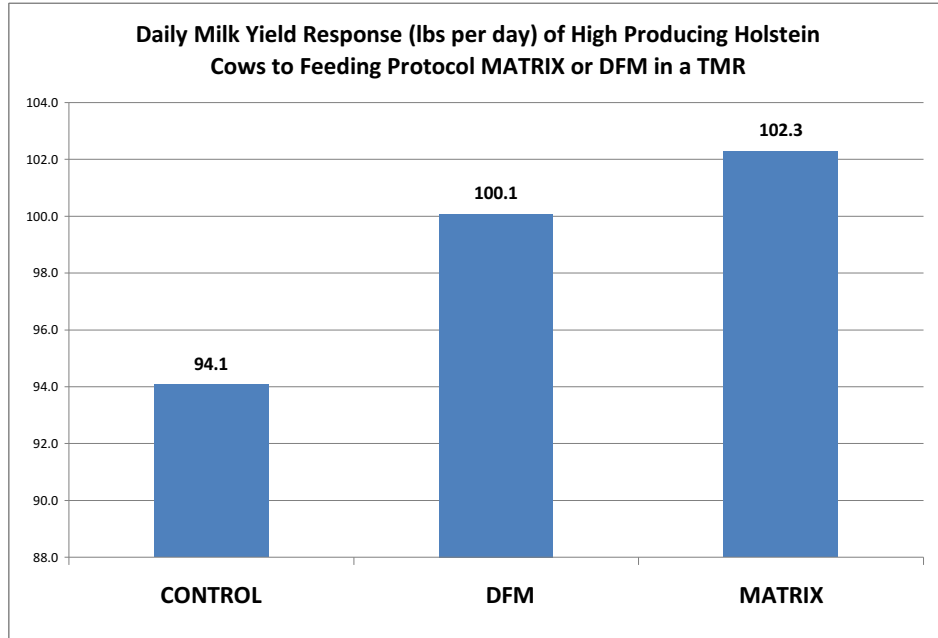
a,b - means with different superscripts are significantly different at P<.03

c,d - means with different superscripts are significantly different at P<.07

\*ROI based on \$25 cwt milk and feed cost of 12.5 cents per lb DM

Note: MATRIX<sup>®</sup> is an All-Natural feed additive developed from 30 years of research and is comprised primarily of natural vasodilators and host-specific beneficial bacterial strains developed and manufactured by Protocol Naturals, Inc.





## Matrix Wisconsin Dairy Study

63 head of high producing Holstein cows were fed 30 grams of Matrix for one month (April 13 – May 13). The on-farm study was administered and supervised by Mr. Vern Metcalf of Land O'Lakes Purina Feed. Milk yield was monitored daily via Dairy Comp 305 dairy software.

After 30 says on Matrix, the results were as follows:

Parameter	Pre-Matrix	Post-Matrix	Net Change
<i>Milk Yield lbs All Cows</i>	83.6	86.9	+3.3
<i>Peak Milk lbs All Cows</i>	98.7	105.3	+6.6
<i>% Cows &gt;100 lbs Milk</i>	21.7	25.4	+3.7
<i>% Milk Fat All Cows</i>	4.05	4.14	+0.09
<i>% Milk Protein All Cows</i>	3.20	3.18	-.02

Based on the cost of Matrix and the value of both milk and milkfat in the U.S. currently, the economic return of Matrix in this study equated to over a 4 to 1 return on investment.

MATRIX® is a registered trademark of Horner Industries, Inc.