

Pooled Analysis of OneTrak Research Data

Objective/Purpose

Analyze past published data to understand the common effects of feeding OneTrak in lactating dairy cow diets.

Materials and Methods

Six published studies were utilized in a pooled analysis. All 6 studies contained dietary treatments of both OneTrak based diets (35-40% DM inclusion) and a negative control with no OneTrak. The data were analyzed as a general linear model with publication source and treatment as fixed effects using Minitab statistical software. Response variables were considered significantly different using an alpha level of $\alpha \leq 0.05$.

A simple cost analysis was conducted to compare the IOFC (income over feed costs). To calculate diet cost, the DMI of each treatment was multiplied by a common cost per lb of DM (\$0.17/lb). ECM was multiplied by a common \$18.00 /cwt milk price to calculate milk revenue. The final IOFC was calculated by subtracting the diet cost from the milk revenue.

Technical Results

As expected, publication differences were significant for all response variables. Cows in different locations, days in milk, and management practices will have differences in production metrics, so these results were not surprising. However, there were no significant publication by treatment interactions, suggesting that all treatment responses were similar regardless of publication/location. Butterfat and protein percentages were not significantly different. However total milk lbs increased when cows were fed OneTrak. This led to an increase in total butterfat (+0.25 lbs) and protein (+0.27 lbs) produced. The DMI for cows was increased from 54.9 lbs for cows fed the control diets compared to 58.9 lbs of DMI for cows fed OneTrak. Using the intake and production data, 4% FCM and ECM were both increased in cows fed OneTrak. However, when expressed as ECM/DMI there were no differences in the two treatments.

Comparing IOFC for both treatments, cows that were fed OneTrak were more profitable compared to control cows. Even though cows ate more when fed OneTrak, their increased milk revenue was enough to cover the increased intakes with additional income from increased milk lbs.

Application

This data shows the positive impact of feeding OneTrak to lactating dairy cows in more than one scenario. You can expect that feeding OneTrak will increase dry matter intake, but will also increase total milk production, without affecting milk components. Feeding OneTrak could improve operation and strengthen your bottom line.

Table 1. Pooled Analysis of Dairy Cows Fed OneTrak Diets versus Conventional Diets.

Item	Control	OneTrak	SEM	<i>P</i> - value
Butterfat, %	3.70	3.67	0.05	0.67
Protein, %	3.17	3.19	0.01	0.15
Milk, lbs	76.6	84.0	0.76	<0.01
Butterfat, lbs	2.83	3.08	0.06	<0.02
Protein, lbs	2.41	2.68	0.03	<0.01
DMI, lbs	54.9	58.9	1.25	0.06
4% FCM	73.1	79.9	1.12	<0.01
ECM	79.1	86.7	1.14	<0.01
ECM/DMI	1.44	1.48	0.05	0.57

Table 2. Cost analysis of pooled analysis data from cows fed OneTrak diets vs conventional diets.

Item	Control	OneTrak
Diet Cost, \$	\$9.33	\$10.01
Cost, \$/lbs DM	\$0.17	\$0.17
Milk Price, \$/cwt	\$18.00	\$18.00
Milk Revenue, \$	\$14.24	\$15.61
IOFC, \$	\$4.91	\$5.59

Publications

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