

## **Effects of Replacing Soybean Meal with Canola Meal or Treated Canola Meal on Performance of Lactating Dairy Cows**

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This experiment was conducted at the USDA Forage Research Institute in Madison, Wisconsin. The Purpose of the study was to determine if protein from canola meal improved milk production relative to soybean meal, and if there was any further advantage in providing a heat treated, higher RUP meal. The high RUP canola meal used in the study was prepared by Afgriotech, in Watertown, New York. The compositions of the diets are given below on a dry matter basis.

Item	Soybean meal	Canola Meal	Treated Canola Meal
Crude Protein, %	15.7	15.7	15.6
NDF, %	27.1	29.5	29.6
Fat, %	2.88	2.96	2.96
Calculated NE-L	0.70	0.70	0.71

The study was conducted with 15 mid-lactation cows cows/treatment, and the cows remained on treatment for 12 weeks. Diets contained 8.40, 11.2 and 11.4% of soybean meal, canola meal and treated canola meal. Corn was reduced in the canola meal diets, and all other ingredients remained the same.

As the table shows, milk product was improved when canola meal and treated canola meal were included in the diets. Even through the diets contained the same amounts of protein, milk urea nitrogen (MUN) was reduced when cows were given canola meal and treated canola meal.

Item	Soybean meal	Canola Meal	Treated Canola Meal
Dry Matter Intake, Kg	57.0	58.3	59.6
Milk, Kg	86.7	88.7	92.2
Fat, %	4.16	4.18	4.14
Protein, %	3.18	3.12	3.22
Lactose, %	4.83	4.91	4.89
MUN, mg/dL	14.0	12.9	12.5

Canola meal provides a more complete amino acid profile for milk production than soybean meal. The advantage of using AminoMax is that it provides a balanced blend of soybean meal and canola meal, to supply just the right amounts of amino acids to support milk production.