

## Recent Evaluation Demonstrates Improved Dakota Gold NDF Digestibility

### RESEARCH SUMMARY

Most nutritionists and producers would agree with this statement: Improvements in fiber digestibility of Dakota Gold result in better performance for dairy cows. However, many of these same nutritionists and producers probably don't recognize just how much value there is in improved fiber digestibility and its positive impact in performance.

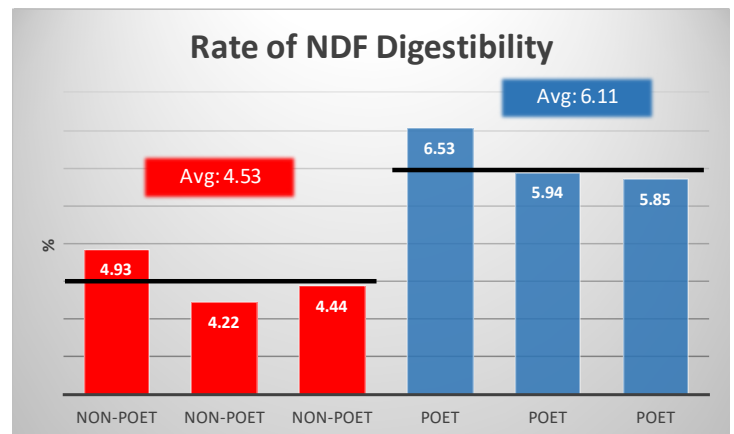
### BACKGROUND

We recently submitted six samples of DDGS (three non-POET and three Dakota Gold) to Cumberland Valley Labs and requested the fiber digestibility analysis. This method measures NDF disappearance at different time points when incubated with rumen fluid. We've previously submitted samples to Cumberland Valley Labs for the same assay and results from the current samples supported previous observations: greater NDF digestibility for Dakota Gold compared with non-POET samples. The following figure depicts rate of NDF digestibility for the six different sources.

### RESULTS

- Dakota Gold proved to be 35% greater NDF digestibility when compared with non-POET samples.
- The less fat in Dakota Gold allows for higher inclusion amounts and greater feed cost savings in dairy cows.

Dakota Gold averaged 1.58 percentage points (35% improvement) quicker rate of NDF digestibility than the non-POET samples. Admittedly, this doesn't seem to be very relevant and doesn't tell us much about value; models built into current formulation software can help provide this value. Variables such as NDF digestibility can be changed for ingredients and the software then predicts allowable milk based on protein and energy.



When we formulate a typical diet with two different types of DDGS (low vs. high NDF digestibility), the software predicts approximately 0.42 pounds more milk per cow per day. Assuming, \$19.00/cwt milk, this is an additional \$0.08 of revenue. The diet included 4 pounds of DDGS so when we back-calculate the value for each ton of DDGS, we see a premium of \$40. Nutritionists quickly recognize that feeding DDGS reduces feeds costs. The less fat in Dakota Gold allows for higher inclusion amounts and greater feed cost savings. The NDF digestibility example below simply represents another approach to demonstrate the value of DDGS and specifically, Dakota Gold for the dairy industry.

	Milk Production (lbs/d)	Additional Revenue	DDGS Inclusion (lbs/d)	DDGS Premium (\$/ton)
Low NDF Digestibility	85.72	---	4	---
High NDF Digestibility	86.14	+\$0.08	4	\$40

\*These results are not a guarantee of nutritional value, as laboratory results are influenced by factors beyond the control of POET Nutrition.