

NEW

# RumiStar™

EFFICIENCY STARTS WITH DIGESTIBILITY

## Cattle can't use what they can't digest

- Beef and dairy producers are continually searching for ways to get the most out of their feed rations.
- Starch contributes 75 percent of the energy value of grain and 50 percent of corn silage.<sup>1</sup>
- By improving starch utilization, producers may reduce corn in diets, or improve income potential through average daily gains in feedyard cattle.

## Rumistar – the in-feed Alpha-amylase to improve starch efficiency

- One option for improving feed efficiency is utilizing an Alpha-amylase (or  $\alpha$ -Amylase), an enzyme that is essential for conversion of starches into oligosaccharides. Put simply: Alpha-amylase improves the starch utilization of cattle feed.
- RumiStar, a newly-available feed enzyme from DSM, is an Alpha-amylase that can be added to any feed ration.
- RumiStar is stable and highly active under ruminal conditions. RumiStar shifts more starch digestion to the rumen, rather than the large intestines, resulting in more efficient energy use in the animal.

**STARCH**  
**75%**  
ENERGY VALUE OF  
**GRAIN**



AND **50%**  
OF CORN  
**SILAGE**



Pure Alpha-amylase



Dry and liquid forms



Improves starch digestibility

# ON-FARM DEMONSTRATIONS

## RumiStar consistently improved feedyard performance

In feedyard cattle, feed conversion — or the correlation between dry matter intake (DMI) and gain ratio — is the driving factor for any ration. In feeding situations where corn content is reduced, or dry corn is used, utilizing an Alpha-amylase can help increase weight gain.

In recent DSM on-farm demonstrations, cattle that were fed rations with RumiStar saw an increased starch digestibility of 6 to 8 percent, improved average daily feed intake (ADFI) of 0.8 lb/head/day and increased average daily gain of 0.15-0.25 lb/head/day.<sup>2</sup>

**INCREASED 6%-8%**  
STARCH DIGESTIBILITY

**IMPROVED ADFI**  
0.8 LB HEAD/DAY

**INCREASED ADG**  
0.15-0.25 LB/HEAD/DAY

## Minnesota feedyard demonstration results

A recent Minnesota feedyard demonstration showed numerous improvements when using RumiStar compared to control (no enzyme).<sup>2</sup>

### RumiStar added to rations

RumiStar	Pen	Head, no.	Weight, lb	Gain, lb	DMI, lb
Yes	1	243	870	3.71	21.56
Yes	2	238	904	3.26	20.23
Yes	3	230	906	3.45	21.07
Yes	4	231	933	3.56	22.06
Yes	11	234	964	3.66	22.17
Yes	12	174	947	3.78	22.41
Yes	13	276	874	3.49	20.7
Yes	14	211	850	3.65	20.96
<b>Average</b>		<b>229.63</b>	<b>906</b>	<b>3.57</b>	<b>21.4</b>

### Control — no RumiStar in rations

No RumiStar	Pen	Head, no.	Weight, lb	Gain, lb	DMI, lb
No	5	189	1230	2.68	22.34
No	6	188	1257	2.57	22.12
No	7	82	761	4.01	19.78
No	8	244	948	2.57	17.25
No	9	220	892	2.78	17.93
No	10	70	1433	3.13	26.78
<b>Average</b>		<b>165.5</b>	<b>1086.83</b>	<b>2.96</b>	<b>21.03</b>

No difference in intake in the first 40 days. For cattle receiving RumiStar, ADG was greater (P = 0.011) and feed-to-gain ratio was greater (P = 0.03).

## Minnesota feedyard demonstration ROI<sup>2</sup>

RumiStar fed cattle showed the following improvements:

- 0.8 lb increase in intake
- 0.11 \$/head/day reduction in feed cost
- 0.06 \$/head/day increase in gain
- 0.17 \$/head/day increase in value for 150-day feeding period
- 25.50 \$/head increase in overall value

<sup>1</sup>Ferraretto, L. F. (2017). Impact of Starch Content and Digestibility in Dairy Cattle Diets.

Rumistar is a trademark of DSM Animal Nutrition & Health.

<sup>2</sup>DSM. Data on file.