

CELLULO-GEST®

FEED ADDITIVE

PACKAGING AND CODES

Bags, net weight 40 pounds
Code: Nutra Blend M390-40

Available from:
Nutra Blend, LLC,
Neosho, MO 64850
800-657-5657

Nutra Blend West,
Madera, CA 93637 / 503-982-9545
Hubbard, OR 97032 / 559-661-6161

Nutra Blend East,
North Troy, VT 05859
800-945-4474

PMI develops innovative combinations of animal feed additives that optimize performance in poultry, swine, dairy and beef cattle by supporting nutrient utilization and gut health. Working with feed nutritionists, manufacturers, veterinarians and producers, PMI products harness the interactions between feed additives to deliver value, efficacy and strong results. Through a comprehensive innovation approach, across component verticals, species, and geographies, PMI leverages the most advanced ingredients and technologies to develop products that perform.



PMI
4001 Lexington Ave N
Arden Hills, MN, 55126
www.pmiadditives.com

▲ Specifically, for use in forage-based rations for ruminants

▲ A uniquely formulated enzyme supplement designed to deliver performance based on optimal fiber digestibility

Nutritional programs are designed to enhance animal performance and to optimize production efficiency. Today, forage is the foundation of dairy and beef feeding programs, and optimizing forage utilization can be the key to driving performance. Microbes within the rumen effectively produce enzymes to digest fiber components; however, utilization may be optimized by improving the digestibility of hemicellulose and cellulose components in forage.

Cellulo-Gest® Feed Additive (Cellulo-Gest® FA) is a specifically formulated enzyme supplement designed for use in forage-based rations for ruminants including lactating cows, replacement heifers and in grazing and forage-based rations for beef cattle. *Aspergillus oryzae* and *Aspergillus niger* provide the enzymatic activity in by Cellulo-Gest® FA.

FEATURES	BENEFITS
Fiber Digestibility Optimizer Blend	<p>Optimal fiber digestibility supports dry matter intake, energy intake, and production of acetate, butyrate, and propionate.</p> <p>Responses in lactating dairy cattle include:</p> <ul style="list-style-type: none"> • Help support higher levels of FCM, milk protein and butterfat • Optimized body condition <p>Responses in beef cattle include:</p> <ul style="list-style-type: none"> • Help support higher level of ADG • Optimized body condition

RECOMMENDED INCLUSION LEVEL

DAIRY CATTLE		BEEF CATTLE	
Dry Cows	10 g/h/d	Cows	5 g/h/d
Lactating cows	10 g/h/d	Calves	2 g/h/d
Replacement Heifer	5 g/h/d	Stockers/Growers	3 g/h/d
Calves	2 g/h/d	Finishing (Grass-fed)	4 g/h/d

TRIALS WITH CELLULO-GEST® FEED ADDITIVE

IN VITRO DIGESTIBILITY

Aspergillus oryzae and *Aspergillus niger* provide the enzymatic activity in by Cellulo-Gest® FA. This broad spectrum of enzymes, including amylase, hemi-cellulase, cellulase, glucanase and pectinase, has been shown to reduce dry matter intake (7-18%) which supports NDF (fiber) digestibility.

In situ 24-hour dry matter disappearance of various feedstuffs with and without Cellulo-Gest® FA (North Dakota State University research study, 2013).

ROUGHAGE TYPE	CONTROL	CELLULO-GEST® FA
Corn stover	36.9	43.6
Mixed hay	45.0	50.6
Mixed straw	38.7	43.6
Corn silage	63.3	68.2

DAIRY LACTATION

Two studies were conducted at Pennsylvania State University. The first study was a 3x3 Latin-square design with 28-day treatment periods using 18 lactating dairy cows at 115 ± 42 days in milk housed in a tie-stall barn. The second study was an 8 week study with 48 lactating dairy cows between 60-120 days in milk housed in a Calan gate barn. Cows were offered Cellulo-Gest® FA at 10 g/head/day.

	STUDY 1			STUDY 2		
	CONTROL	CELLULO-GEST® FA	P-value	CONTROL	CELLULO-GEST® FA	P-value
Dry matter intake, lb.	55.6	55.3	0.53	51.6	54.0	0.03
Milk yield, lb.	87.5 ^a	89.9 ^{ab}	0.03	71.2	74.1	0.07

GROWING BEEF CATTLE

A trial conducted at North Dakota State University used 172 weaned steer calves (initial body weight of 610 lb.) blocked by weight into 16 pens. Cattle were fed for 82 days starting Fall of 2012. Treatments were Control or Cellulo-Gest® FA (4 g/head/day). All rations contained Rumensin® at 300 mg/head/day. Diet was rolled corn, corn silage, distillers modified grain, rolled barley, and switchgrass hay based and offered an NE_g of 52 Mcal/cwt.

	CONTROL	CELLULO-GEST® FA
Dry matter intake, lb.	23.42	23.58
Average daily gain, lb.	3.87	4.04
Feed: gain	6.03	5.84