

NB NEWS

JUNE 2022 - dairy edition

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NB
DRIVE TO FEED

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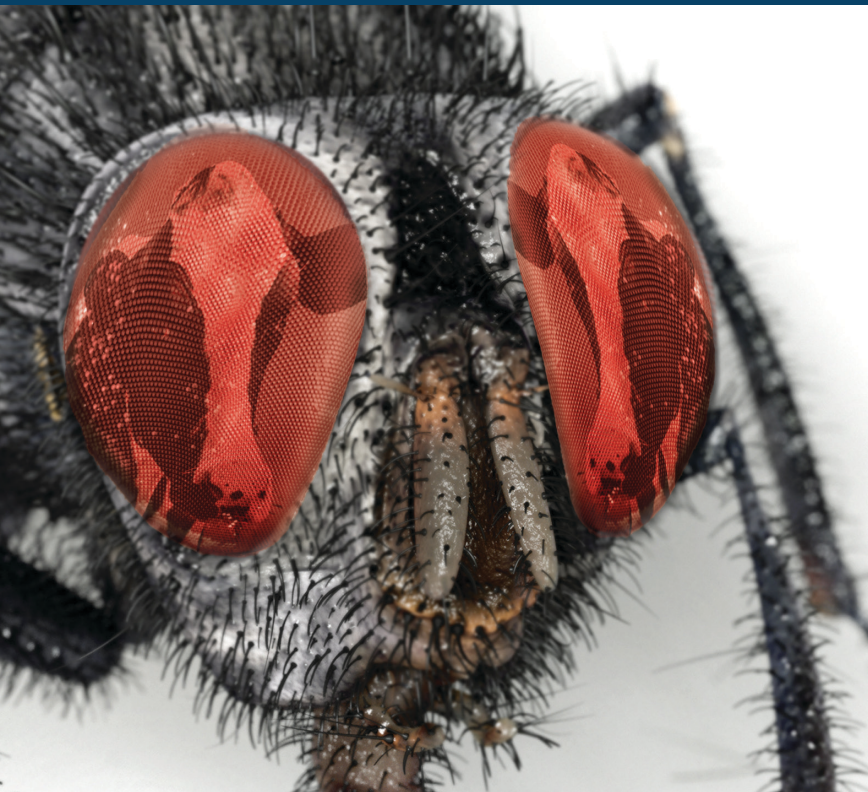
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FLIES ARE A PROBLEM... WE HAVE THE SOLUTION

writer // Central Life Sciences

Fly control on a dairy operation can feel like an overwhelming task. There are a number of different areas that need to be treated and maintained to protect your animals, employees, and bottom line. From proper sanitation practices to learning the different fly behaviors at every level of an operation, our team has created a list of the most common fly control problems and their tailored solutions so that you can protect your operation from disease-spreading fly populations.

Problem: Flies in calf hutches
Solution: Manure management

Proper manure management will go a long way in the fight against flies in calf hutches. As the primary food source and breeding site for flies, improperly managed manure can cause fly populations to increase in a hurry. House flies, stable flies, face flies, and horn flies develop in and emerge from the manure of livestock, where flies lay their eggs. To control fly populations, manure management must be consistent and timely within an integrated pest management (IPM) program.

Problem: Flies resting in ceilings, attics & rafters
Solution: Sticky fly traps

After feeding, flies tend to rest up high in the cooler regions of barns, stables, and other out buildings. This is where products like Starbar® sticky traps come in handy. Hang your sticky traps high in the rafters, joists or angled ceiling of your barn, out of reach of people and livestock.

Problem: Flies mating on walls, fences & corrals
Solution: Odor & pheromone traps

In between feeding and resting, flies use the high levels of walls, fences and corrals to breed. It's important to catch them before they move on to lay their eggs in the manure around your dairy. Odor and pheromone traps have the power to lure flies away from your livestock and provide quick and effective control. Products including the Starbar® Captivator® Fly Trap comes complete with a water-soluble attractant pouch that flies can't resist. For best results, hang these traps along fence lines or near calf hutches. Short walls and shelves in barns, stables, and other out buildings are also ideal spots for these odor and pheromone traps.



Problem: Flies feeding on floors, ledges, gates and off the ground
Solution: Regular sanitation

After resting up high, flies come near the ground level to begin feeding. House flies feed freely on human food, fresh animal waste and rotting garbage. Be sure to clean these food sources regularly and start implementing fly bait and traps for complete control.

Problem: Flies living on-animal, pasture, crops, standing water & structures
Solution: ClariFly® Larvicide

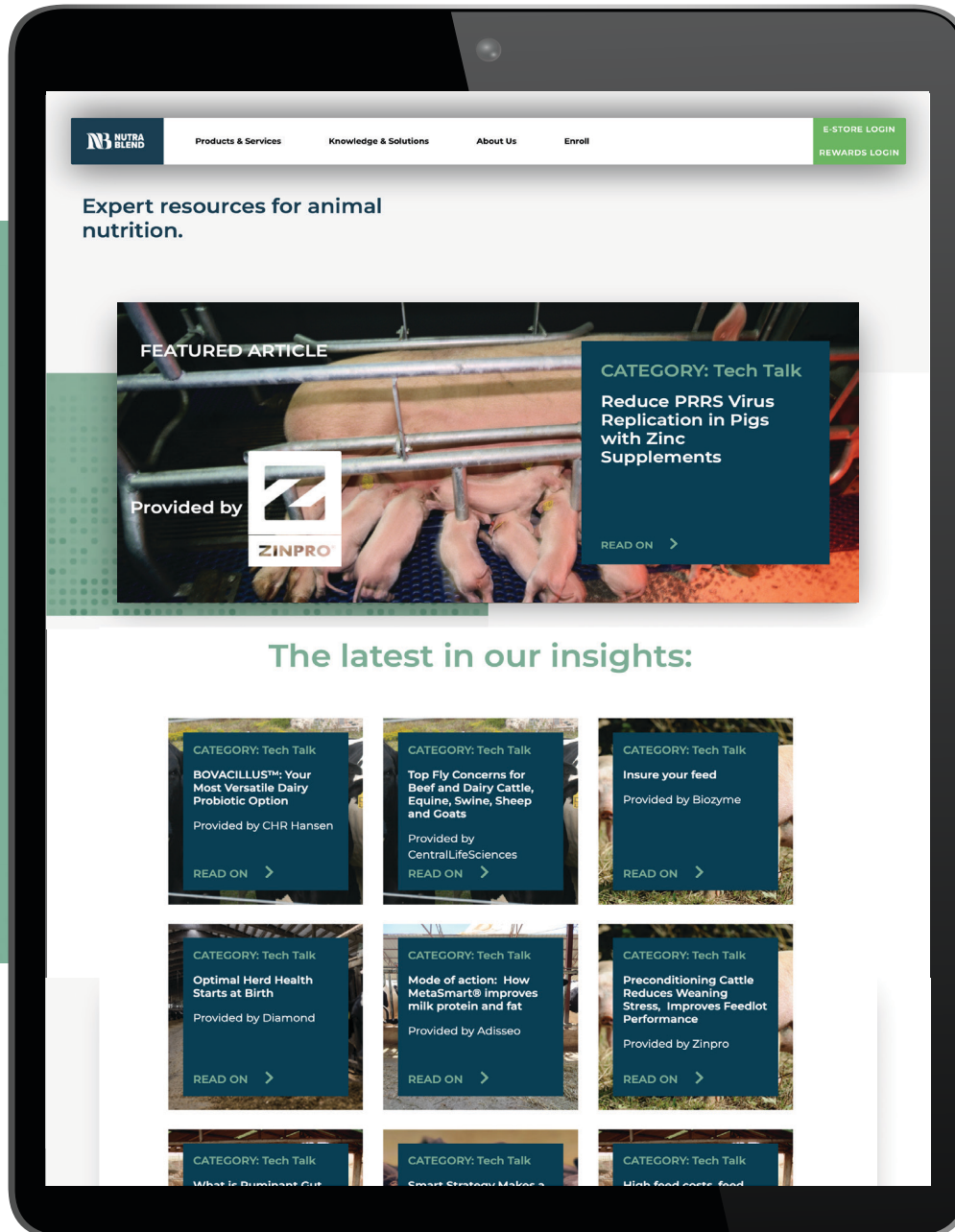
When a fly infestation hits a dairy, populations will quickly spread throughout the property. From barns to pasture, and even applications directly to your herd—a successful fly control plan relies on treating all of these areas. To hit flies directly where they develop and drastically reduce fly populations, use a feed-through fly control product like ClariFly® Larvicide. Unlike conventional insecticides that attack the nervous system of insects, ClariFly® Larvicide works by interrupting the fly's life cycle, rather than through direct toxicity. When mixed into cattle feed, ClariFly® Larvicide passes through the digestive system and into the manure. To extend control to the whole herd, use a feed-through product for your calves as well—reducing fly populations around calf hutches. Using ClariFly® Add-Pack in whole milk or milk replacer helps increase calf comfort and decrease the spread of disease.

ClariFly® Larvicide also comes with minimal risk of residue in milk. The metabolism of the active ingredient in cattle has been extensively studied in dairy cattle. Metabolism studies in dairy cows showed no detectable levels of the active ingredient residues in milk when dosed up to 28 days. In studies of dairy cows, only very low levels of the active ingredient were occasionally seen in liver, kidney, fat and muscle. Therefore, there are no withdrawal requirements when using ClariFly® Larvicide.

ClariFly® Larvicide is a simple, cost-effective form of fly control that requires very minimal additional work and effort and allows you to continue what you are already doing, feeding your animals.

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LEADING THE CHANGE FOR NUTRIENT REQUIREMENTS IN DAIRY CATTLE

writer // Daryl Kleinschmit

For the first time in over 20 years, the National Academies of Sciences, Engineering, and Medicine (NASEM), formerly known as the National Research Council (NRC), released new guidelines for nutritional requirements in dairy cattle. However, since the last update in 2001, our team at Zinpro® has continued to conduct research to find what nutritional solutions are best for dairy cattle health and well-being.

Avoid Health Obstacles With New Nutrient Requirements

When dairy cattle don't receive essential trace minerals at the recommended levels, cows are at risk for nutrient deficiency, which can take up to a year from which to recover. This leads to a myriad of health concerns that decrease animal well-being and productivity.

Depending on the severity, these issues can cause short- and long-term distress in dairy cattle, resulting in negative consequences on animal productivity, reduced milk yield and fertility — all impacting a producer's bottom line.

Let's look at the key essential trace minerals for dairy cattle and what these updated requirements mean for you:



Zinc is critical for maintaining dry matter intake and temperature during heat stress, epithelial integrity in the gut, a robust immune system, reducing somatic cell counts (SCC) and for the formation of keratinocytes, the epithelial cells that help form hoof cells and harder hooves.

°NASEM guidelines increased to 30 parts per million (ppm) from 25 ppm for dry cows.

°At Zinpro, we recommend 75 to 85 ppm for dry cows because zinc helps increase immunity and hoof health, allowing animals to have a healthier transition period.



Manganese is important for wound healing, the development of connective tissue for collagen formation, immunity and reproduction.

°NASEM nearly doubled this requirement due to a new understanding of how manganese is absorbed, increasing to 40 ppm for dry cows and 30 ppm for lactating cows.

°At Zinpro, we recommend 55 to 75 ppm for dry cows because manganese helps increase immune function and aids in calcium metabolism, which is critical at transition and improves reproductive performance.



Iodine plays an important role in a cow's immune system. From a therapeutic level, iodine helps increase the killing ability of white blood cells. Additionally, iodine helps maintain thyroid hormones, making it a key nutrient for energy and metabolism.

°NASEM included an increase to 1 ppm of iodine when feeding certain feeds, such as canola meal, turnips and raw soybeans.

°These feeds act as an iodine antagonist, preventing the animal from absorbing the mineral. Zinpro has foreseen this issue and our team has long recommended that diets should include 1 ppm iodine to avoid nutrient deficiency.



Copper is an antioxidant that aids immunity and helps with energy and metabolism. It also helps harden hooves, protecting them against harmful environmental factors, aids B cell maturation and helps with connective tissue formation.

°NASEM requirements increased to 20 ppm for dry cows and decreased slightly in lactating cows.

°Zinpro has been a leader in finding the right balance of copper in dairy diets and was one of the first advocates for reducing copper supplementation in dairy diets. Our team's years of experience have shown that copper will accumulate very efficiently in the liver when fed in excess, resulting in negative health like copper toxicity.

Build a Proven Animal Nutrition Program for Optimal Herd Health

By including the highest-quality ingredients in your diet recommendations, you can prevent health-related losses. Zinpro's Availa® product line has the most unrivaled mineral absorption in the market, allowing dairy cows to reap the benefits of the improved nutrient requirements and inclusion in diets.

Availa® Dairy, Zinpro's flagship dairy offering, has been shown across a multitude of studies to improve dairy cow performance with 9% greater feed efficiency, 35% decrease in lameness, 5.5% increase in pregnancy rate and a 20% lower SCC.

Two components of Availa Dairy, Availa Mn and Availa Zn, are proven to address significant headaches on dairies.

- Feeding higher levels of Availa Mn can cut the occurrence of milk fever in half from 4% to 2% and reduce death loss by 62% in transition cows.
- Feeding Availa Zn results in a 60% reduction in digital dermatitis.
- When paired together, these two minerals are instrumental in helping animals fight bovine respiratory disease (BRD) by encouraging stronger immune responses, decreasing elevated temperatures, maintaining dry matter intake and preserving body weight.

Preventing nutrient gaps by providing the proper amounts of trace minerals is a proactive way to promote and preserve herd health. Managing herd health and feeding Zinpro Availa at the recommended levels can increase milk yield 3-7 lb/cow, adding value to your business and cushioning your producer's bottom line. By providing cows with the right nutrition and ideal environments, we can avoid costly health events, promote well-being and increase cow productivity.

To learn more about specialized trace mineral nutrition for each stage of dairy production, visit zinpro.com. The Zinpro team of dairy nutrition experts are ready to connect and help you improve animal performance, while ensuring higher levels of animal health and well-being.

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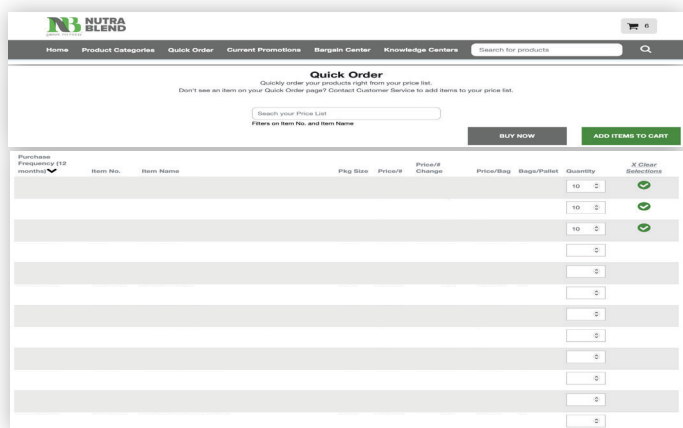
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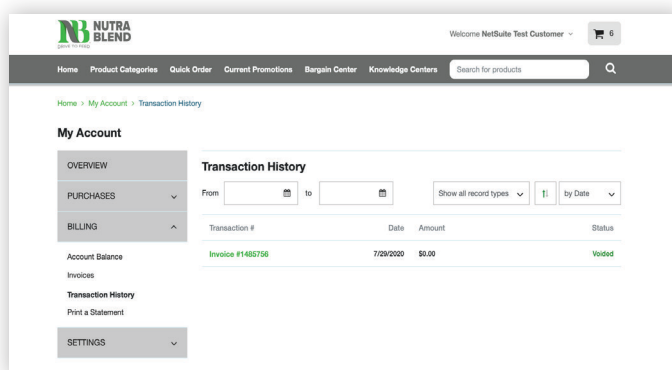


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MILK SEASONALITY

writer // Dr. Hannah Tucker, ruminant technical manager, Novus

When the heat index starts to climb, milk production starts to drop. It's all because of heat stress having an impact on the cow's production, right? Data from Penn State University has looked at the seasonality of the dairy cow's production, and there are interesting patterns emerging that may imply that there is more to the story (Salfer et al., 2019 and Salfer et al., 2020).

There is a curved pattern that ebbs and flows up and down throughout the year in milk yield, milk fat percentage and yield, and milk protein percentage and yield. Milk yield peaks around April/May, while component percentages (milk fat and protein) peak in late December/early January (Salfer et al., 2019). Since

milk component percentage (milk fat and milk protein) is an equation of component divided by milk yield, the values of the component percentages fall in between the peaks of component yields and milk yield. The trough of the pattern for milk yield is September/October, and the component percentages are lowest during June/July. There are regional differences, where the amplitude of the change (difference in the height of the curves) varies. In the northern part of the United States, there is an increase in amplitude on the components, whereas, in the southern part, there is a larger amplitude of milk yield (Salfer et al., 2020).

The figure above provides a visual of what the curved pattern looks like for milk fat percentage. While the values are arbitrary, the pattern shown for milk fat percentage is true across the U.S. The values on the y axis will change depending on individual farms due to management and environment (The amplitude referenced before is how big of a range there is on the y axis.).

Figure 1: Visual of how the curved pattern looks with milk

fat percentage throughout the year using arbitrary values.

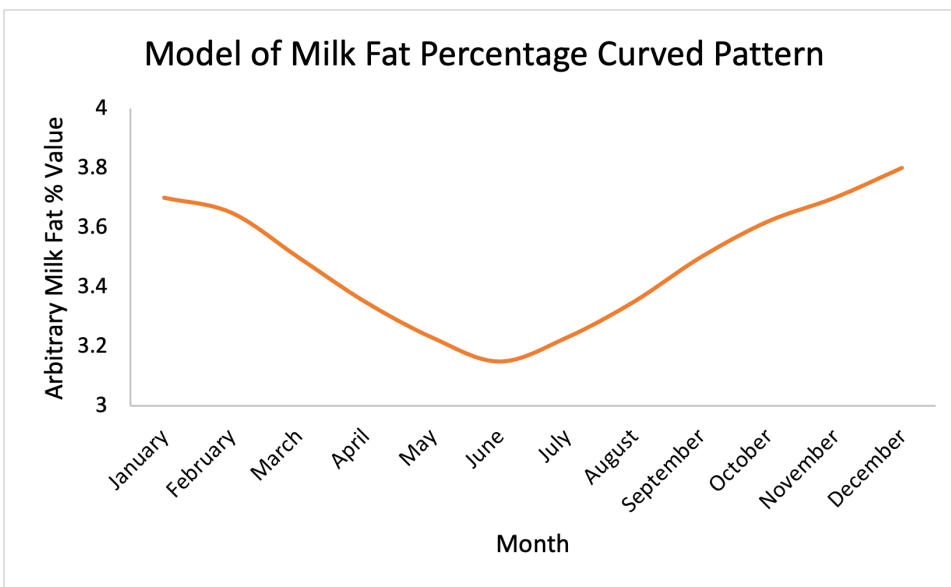
The curve does follow the season of the year (i.e., there is lower milk production during the summer); however, even when accounting for the influence of heat stress/temperature fluctuations, there would still be a cosine curve to the production. The hypothesis is that the patterns

have evolved throughout the history of a cow's physiology that can be influenced by photoperiod or seasonal hormones (Salfer et al., 2019).

While interesting data, what practical ideas can be taken from it? The first would be benchmarks. Are the milk production benchmarks for the dairy different depending on the

season? Have the benchmarks moved from year over year? Context is key to understanding how milk production is actually doing instead of just being concerned when there is a minor change. The minor change could be accounted for by simply looking at the historical data of the farm. Second, how should rations be adjusted during the year? Nutritionists should be maxing out the potential of the herd, but certain changes may not be able to be followed during the entire year. The herd on a yearly average could be sitting at a 4.0 percent milk fat, but that may be because the milk fat percentage is 4.2 percent during the winter months and 3.8 percent during the summer.

The potential for the research, while still early on, is an excellent tool for the dairy industry. Dairy management practices are constantly being updated, but this research helps set the context of the potential for a dairy cow's lifetime production. As an industry, we are getting closer to having a better sliding scale that accounts for all the factors impacting our herds.



Sources

Salfer, I. J., C. D. Dechow, and K. J. Harvatine. 2019. Annual rhythms of milk and milk fat and protein production in dairy cattle in the United States. *J. Dairy Sci.* 102: 742-753. <https://doi.org/10.3168/jds.2018-15040>.

Salfer, I. J., P. A. Bartell, C. D. Dechow, and K. J. Harvatine. 2020. Annual rhythms of milk synthesis in dairy herds in 4 regions of the United States and their relationships to environmental indicators. *J. Dairy Sci.* 103: 3696-3707. <https://doi.org/10.3168/jds.2019-17362>.

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1. Fabris et al., 2017. J. Dairy Sci. 100:6733-6742

2. Leiva et al., 2017. J. Dairy Sci. 100:4829-4838



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SUMMARY OF RESULTS OF AMINO ACID BALANCED RATIONS ACROSS THE USA

writer // Adisseo

Balancing dairy rations for amino acids is becoming a more common practice among nutritionists for a variety of reasons. These include: a desire to increase the profitability of the farm through improved reproductive performance, herd health and higher yield of milk components; the need to reduce nitrogen excretion into the environment; and the availability of software models that increase the predictability of economical responses.

AMINO ACID BALANCING

↑ Improves Lactation Performance

↓ Reduces Excess Nitrogen Excretion

↑ Improves Environmental Sustainability

↑ Optimize Herd Profitability

Component responses are the most quickly observable effects seen when switching a herd on to an amino acid balance (AAB) ration. Figure 1 shows how quickly the response can show up. During the 30 days prior to feeding an AAB ration milk protein had advanced 0.04 percentage units, a normal seasonal effect during the fall of the year. However, 30 days after the herd started on an AAB ration milk protein increased by 0.23 percentage units.

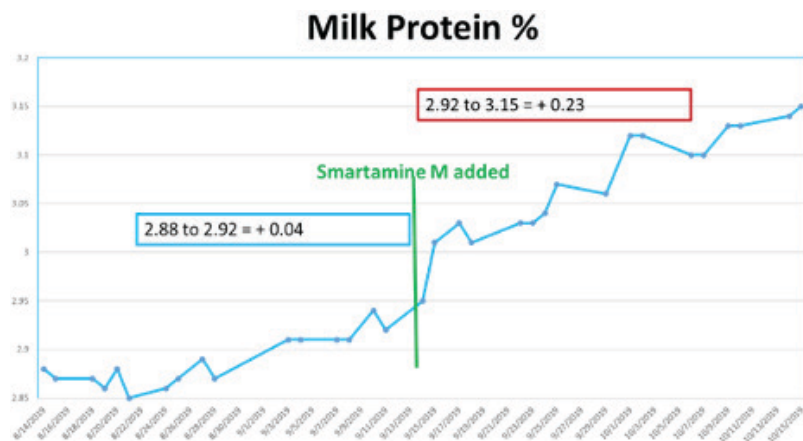


Figure 1. Milk protein response to an amino acid balanced diet.

Over the past three years Adisseo worked with several dairy producers and their nutritionists across the U.S. to showcase the effectiveness of amino acid balancing to increase farm profitability. The number of cows involved was more than 50,000 on 22 farms.

The primary on-farm measurements taken included milk protein and milk fat percentage and milk yield. Following the observation period, changes in component yields and ration costs were inputted in a partial budget spreadsheet (Milkpay.com) and the profitability of AAB evaluated.

Figure 2 depicts responses to AAB rations. Responses ranged from 0.0 to 0.15 percentage units for milk protein (average 0.08) and -0.02 to 0.33 (average 0.10) percentage units for milk fat, respectively. In most cases milk yield was slightly positive to unaffected by the ration changes made.

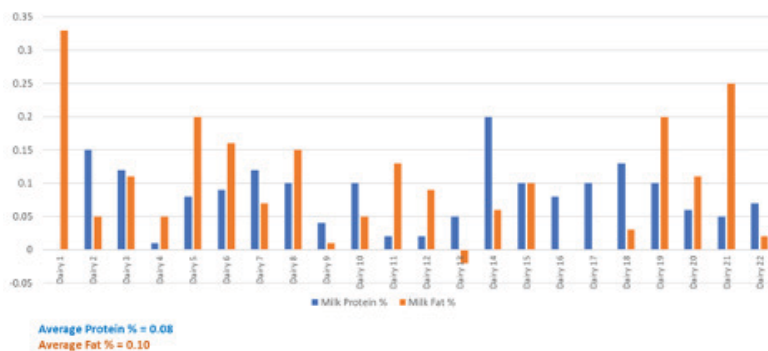


Figure 2. Responses to AA balancing on Commercial Dairies across the USA.

Positive outcomes were determined by whether the dairy producer and their nutritionist decided to stay on an AAB rations following the evaluation period. Of the participating dairies in figure 2, 17 out of 22, or 77 percent decided to stay on an AAB ration.

Often people make the mistake of assuming that an AAB ration will cost significantly more than their current ration. This has been a roadblock for many nutritionists and their clients to obtaining the increased profitability an AAB ration can provide. One of the many benefits of the new modeling programs available to the industry is the ability of the software to optimize rations using a non-linear algorithm. This function allows the nutritionist to develop an AAB ration at a significantly reduced price. **In other words, the cost of an AAB ration does not equal the cost of the rumen protected amino acid (RPAA) added to the diet.** For example, it is often possible to add \$0.25 worth of RPAA to an existing high cow diet and only increase ration costs by \$0.10 to \$0.15 by doing AAB using Smartamine M and Smartamine ML. The result is no change in milk yield but a significant increase in the yield of milk protein and fat. Figure 3 shows how a high cow diet was optimized to improve the amino acid balance. **The changes to the diet ingredients were not dramatic and we were able to add 38 cents worth of AA for a total diet cost change of 8 cents.**

Ration Specifications					
Feeds (lbs. DM)	Original	AA Optimized	Nutrients	Original	AA Optimized
Corn Silage	19	19.89	Dry Matter Intake, lbs.	57	56.9
Alfalfa Haylage	11.48	10	NDF, % DM	29.26	28.81
Corn, fine ground	10.32	11	Forage aNDFom, % DM	21.11	20.83
Cottonseed	3.68	3.22	uNDF intake, lbs	5.01	4.76
Whey Delac	2.8	3	Sugar Degraded, g/d	1036	1057
Canola Meal	3.25	3.1	Starch Degraded, g/d	5326	5396
Amino Plus	2.2	2	CP, % DM	17.4	16.79
DDG	1.78	2.17	MP from Bacteria, g/d	1449	1472
Calcium Carbonate	0.5	0.6	ME Allowable Milk, lbs	95.29	95.96
Sodium Bicarbonate	0.5	0.5	MP Allowable Milk, lbs	94.98	93.78
NutraCor	0.5	0.47	MET supply, g/d	63.34	72.53
Illod Meal	0.45	0.3	Lys supply, g/d	192.38	195.47
Salt	0.13	0.14	HIS supply, g/d	81.77	79
Yeast	0.11	0.125	LysMet	3.04	2.7
MagOx	0.1	0.1	MET Energy (g/Mcal ME)	0.94	1.08
Min/Vit	0.12	0.1	Lys Energy (g/Mcal ME)	2.87	2.91
Urea	0.1	0.1	Total Cost, \$/c/d	6.69	6.77
Rumensin 90	0.0047	0.0048			
Smartamine ML	0	0.0466			
Smartamine M	0	0.0246			
Total	57	56.9			

Figure 3. Non-Linear Optimization to achieve an amino acid balanced high cow ration.

If you are not feeding AAB rations and would be interested in investigating the potential value to your client/farm, contact your local Adisseo business manager.

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THE EFFECT OF RUMENSIN IN MODERN DAIRY DIETS

writer // Elanco

The dairy industry and the nutritional requirements of dairy cows have changed considerably over the last several decades, driven by diverse factors such as cow genetics, economics and advancements in nutritional knowledge. Today's dairy diet takes these factors into account to deliver as much component-rich milk as possible for the most economic benefit. Many of these diets are supplemented with Rumensin®, which increases milk production efficiency by delivering more milk per pound of feed.

Rumensin history

Rumensin's original FDA approval was obtained in 2004 using one of the largest, most robust data sets ever generated around a feed additive. The FDA data package included nine North American trial sites utilizing more than 800 dairy cattle through at least one full lactation. Rumensin at four different levels was evaluated (0, 7*, 15 or 22 g/ton) and all cows had individual intakes measured.

Since Rumensin's approval, the dairy industry has made significant key advancements. Feed additive choices, animal modeling and ration balancing, forage genetics and quality, and dairy cattle genetics have all improved drastically over the last 15 to 20 years. Perhaps one of the most valuable evolutions has been a much-improved understanding of nutritional regulation of milk fat synthesis. Because of these changes, it's important to re-evaluate technologies developed more than 15 years ago to ensure they are still worth using today. Elanco has recently taken on this challenge through two Rumensin trials asking two important questions:

1. What is the most effective dose of Rumensin to improve milk production efficiency in

- mid-lactation cows fed modern dairy diets?
2. How do different Rumensin doses affect milk fat percentage?

Rumensin modern dairy diet trials

Two separate studies^{1,2} with similar designs were conducted in 2019–2020, one in Wisconsin and one in New York. Diets were formulated to maximize milk components and included modern, progressive additives such as rumen-

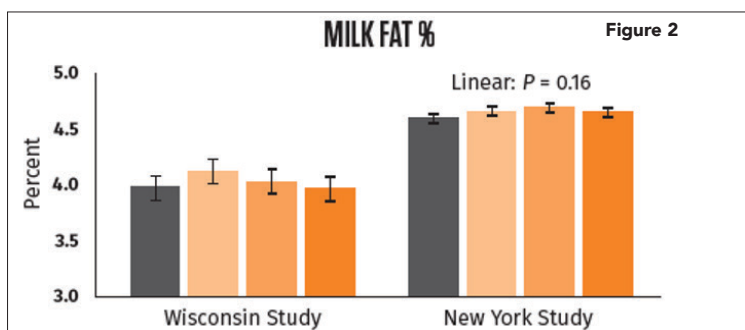
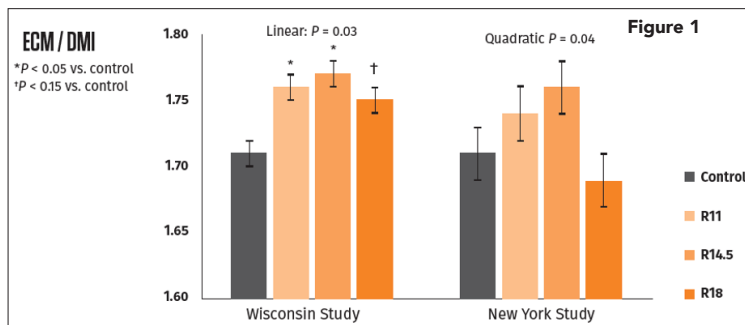
negatively affect milk fat percentage at either site (**Figure 2**). Rumensin increased yields of de novo and mixed fatty acids, indicators of good rumen health, at both sites with the effect being best in the 11 g/ton Rumensin treatment at Wisconsin and best in the 14.5 g/ton treatment at the New York site. The conclusion based on these two studies is that Rumensin did not negatively impact milk fat and 12 to 16 g/ton Rumensin maximized production efficiency, as measured by energy-corrected milk over dry matter intake.

Rumensin increases energy/lb

While the diets in these studies focused on mid-lactation cows, Rumensin provides value throughout the lactation cycle.

- In early lactation, Rumensin delivers more energy from every pound of feed; increasing dry matter intake (DMI) and allowing cows to more rapidly return to a positive energy balance³⁻⁵
- In mid- and late lactation, cows produce more milk per pound of feed⁵
- In dry cows, Rumensin promotes more efficient use of feed to maintain body condition⁶

In addition to optimizing feed potential and maximizing energy, Rumensin prevents and controls coccidiosis — a disease that can cause intestinal damage, long-term productivity issues, and even death in calves and heifers if not treated. Talk with your nutritionist or Elanco sales representative about a dairy diet that fits today's herds and how to make Rumensin part of a long-term strategy for improved milk production efficiency.



protected fats and amino acids. Rumensin was evaluated at each site using pens of cows assigned one of four treatment levels of Rumensin for nine weeks.

At both the Wisconsin and New York sites, the 14.5 g/ton Rumensin treatment had the best improvement in milk production efficiency (**Figure 1**). Furthermore, Rumensin did not

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Dairy cows: For increased milk production efficiency (production of marketable solids-corrected milk per unit of feed intake):

Total Mixed Rations ("complete feed"): Feed continuously to dry and lactating dairy cows a total mixed ration ("complete feed") containing 11 to 22 g/ton monensin on a 100% DM basis.

Component Feeding Systems (including top dress): Feed continuously to dry and lactating cows a Type C medicated feed containing 11 to 400 g/ton monensin. The Type C medicated feed must be fed in a minimum of 1.0 lb of feed/cow/day to provide 185 to 660 mg/hd/day monensin to lactating cows or 115 to 410 mg/hd/day monensin to dry cows. This provides cows with similar amounts of monensin they would receive by consuming total mixed rations containing 11 to 22 g/ton monensin on a 100% DM basis.

*Not on-label feeding directions.

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Sources:

*Not on-label feeding directions.

¹Elanco Animal Health. Data on file.

²Elanco Animal Health. Data on file.

³McCarthy MM, Yasui T, Ryan CM, et al. Performance of early-lactation dairy cows as affected by dietary starch and monensin supplementation. J Dairy Sci. 2015;98:3335-50.

⁴Schroeder GF, Strang BD, Shah MA, et al. Effects of increasing levels of monensin in dairy cows in early lactation. Abstract T279.

⁵Shah MA, Schroeder G, Strang BD, et al. Effect of monensin concentration on dry matter intake during the transition period of lactating dairy cows. J Dairy Sci. 2008;91(Suppl 2):268-9.

⁶Symanowski JT, Green HB, Wagner JR, et al. Milk production and efficiency of cows fed monensin. J Dairy Sci. 1999;82(Suppl 1):Abstr.

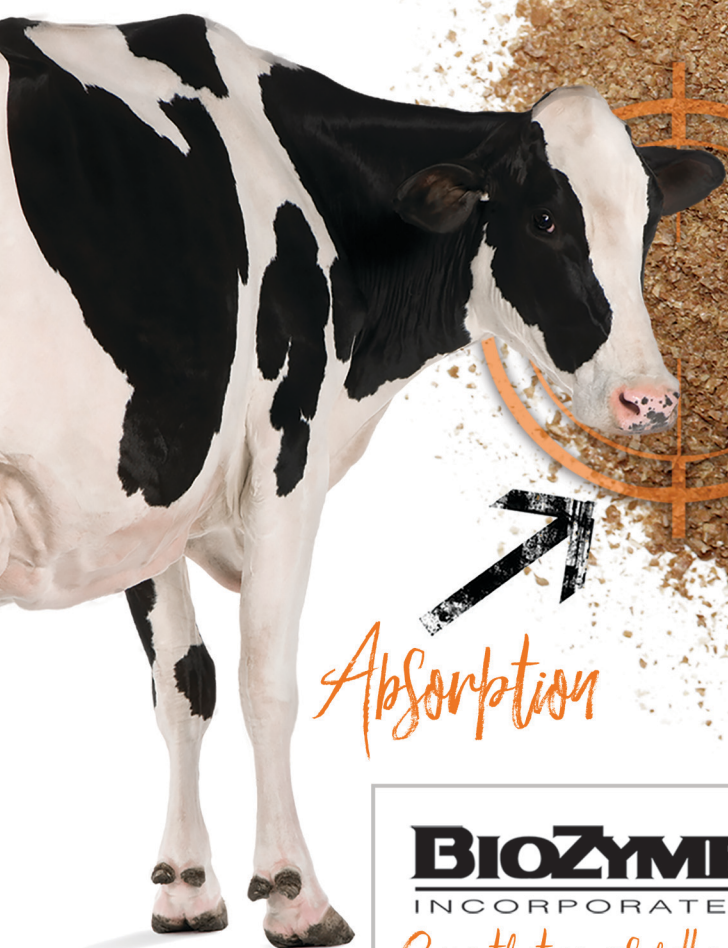
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White Queso Dip

Ingredients:

1 Pound Land O'Lakes White American Cheese
1 Pound Pepper Jack Cheese
1 Fresh Jalapeno, Diced
2-3 Cans Evaporated Milk

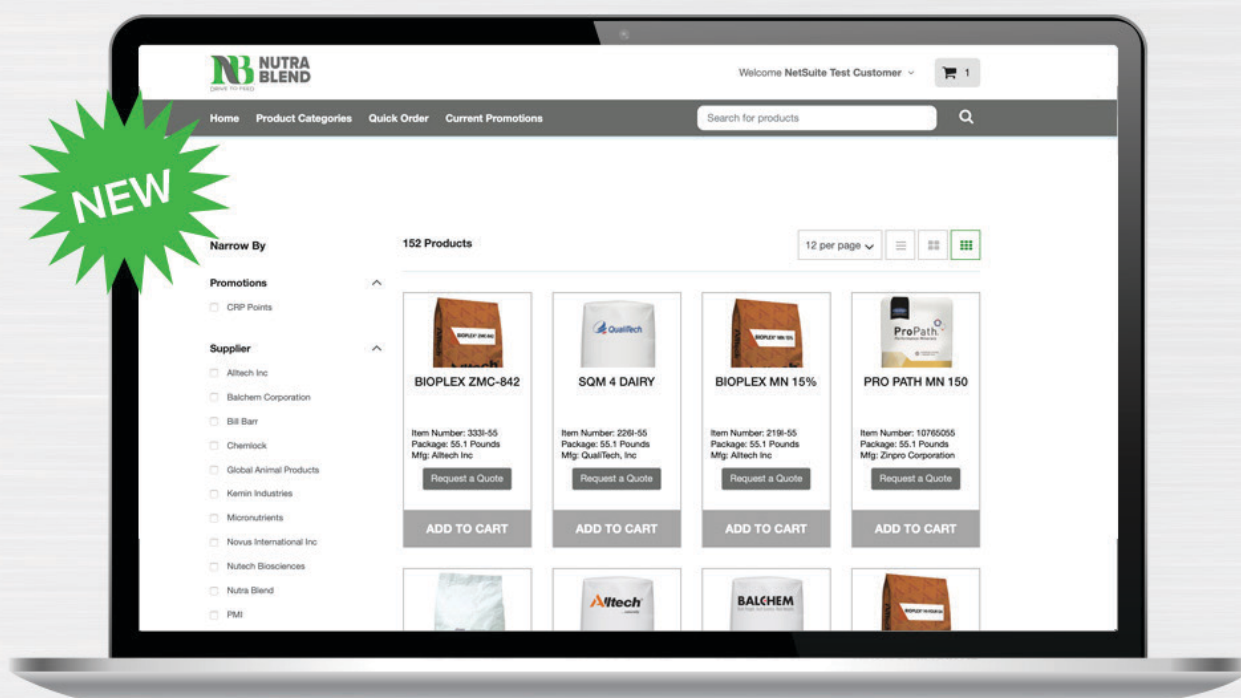
Directions:

Grab your Crock-Pot slow cooker and line with a Crock-Pot liner for easier clean up. Place both cheeses in a Crock-Pot, dice fresh jalapeno and add in. Pour in both cans of evaporated milk, cover and set on low until fully melted. If it is too thick, add in another can of evaporated milk.

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