. Available in 12.5 lb and 50 lb bags. Feed at the rate of 1 oz/head/day.

increased health issues and lower profitability. cold/heat stress cause decreased milk production, energy imbalances and metabolic disorders due to ingredients supplement animals when dehydration, of increased stress. Specially selected, highly bioavailable provide hydration and key nutrients in cows during times electrolyte supplement that is specifically designed to LIRA GOLD® HydroLyte COW is a nutritional and

- Available in 40 lb bags.
- \bullet Feed at the rate of 1 oz/head/day.

and performance.

when molds and mycotoxins negatively impact herd health comprehensive feed and forage management program rations. Feed LIRA GOLD TN+ as a critical part of a Browth and mycotoxins that are present in your dairy brong approach is designed to help target molds, mold components and mold inhibitors. This comprehensive, three minerals, modified aluminosilicates, fermentation ingredients as LIRA GOLD Original with proteinated LIRA GOLD® TN+ contains the same guaranteed active

TIBY COLD® TN+

 Available in 5 kg foil, re-closable pouches. • Feed at the rate of 2-4 grams/head/day.

incorporated into TMRs. supplements can be precisely and thoroughly blend is designed to be used on larger dairies where efficiency of lactating dairy cows. This low inclusion rate beneficial ingredients known to enhance digestive 197A Paramount " DFM is a unique formulation of



Nutritional Solutions for Health And Productivity

Available in 10 lb pails, 10 lb and 40 lb bags.

Feed at the rate of 1/2 oz/head/day.

sug improve feed efficiency in young stock. digestibility of feedstuffs, increase average daily gains Gold-N-Grow helps to increase feed intake, improve research-proven appetite stimulant, LIRA GOLD® feeder cattle - weaning through breeding age. With a programs for growing dairy replacement heifers and beef pacteria and targeted enzymes for use in bovine feeding A source of live (viable) microencapsulated beneficial

- Available in 50 lb bags.
- Feed at the rate of 1/2 to 1 oz/head/day.

feeding programs.

per cow per day feeding. Great for dry cow and beef beneficial bacteria and targeted enzymes in a one ounce the benefits of active dry yeast, microencapsulated LIRA Basic provides the most economical way to supply

- Available in 50 lb bags.
- Feed at the rate of 3/4 oz/head/day.

and early lactation weight loss due to negative energy during times of heat stress, decreased dry matter intake LIRA GOLD® E-X-T helps deliver improved performance over-crowding exceeds 10%.

do not limit feed. Desired results may be reduced when Provide adequate bunk space of 2 linear feet per cow and E-X-T when increased DMI (Dry Matter Intake) is desired. concentrated form plus a unique appetite stimulant. Feed All the benefits of LIRA GOLD® Original in a more



Extract, Dried Schizosaccharomyces pombe Fermentation Extract. Fermentation Product, Dried Trichoderma longibrachiatum Fermentation Bifidobacterium longum Fermentation Product, Dried Bacillus subtilis Bifidobacterium thermophilum Fermentation Product, Dried

pre-fresh and early lactation period if desired.

transition and lactation. Feeding rate may be safely doubled during

achieve a usage rate of one ounce (28.35 grams) per head during

daily feed or blend in grain concentrate or lotal Mixed Kation (IMK) to

as a supplementary source of live (viable) microencapsulated beneficial

LIRA GOLD® Original is formulated for use in bovine feeding programs

bacteria and targeted enzymes. Top dress LIRA GOLD Original over

Available in 10 lb pails and 50 lb bags.

Product, Dried Enterococcus faecium Fermentation Product, Dried niger Fermentation Extract, Dried Lactobacillus acidophilus Fermentation Extract, Dried Aspergillus oryzae Fermentation Extract, Dried Aspergillus Dried Molasses, Active Dry Yeast, Dried Kelp, Biotin, Yucca schidigera Ingredients: Yeast Culture, Corn Distillers Dried Grains with Solubles,

	Beta-Glucanase (A. niger)
4,800 µg pectin broken down/minute/lb.	Pectinase (A. niger)
	Lipase (A. oryzae)
	Cellulase (T. longibrachiatum, A. oryzae)
.dl/ətunim/bəzylorbyt ətstyd pq 002, f	Phytase (S. pombe)
21,650 µg hemicellulose broken down/minute/lb.	Hemicellulase (A. niger)
.dl/əhunim/bəzylorpkh srietoring pydrolyzed/minute/lb.	Protease (A. oryzae)
180,000 µg starch hydrolyzed/minute /lb.	Alpha-Amylase (A. oryzae)

Enzyme Activity:

Use Directions:

Bifidobacterium thermophilum, Bifidobacterium longum and Bacillus subtilis) Total Microbial Count......807 Billion CFU per pound (50.4 Billion CFU/oz) (Saccharomyces cerevisiee, Laciobacilus acidophilus, Enferococcus faecium,

Guaranteed Analysis:



OBTEMNATE PORTVIOLEA

production. to help improve health and package of enzymes designed bacteria and an extensive microencapsulated beneficial deliver two yeast sources, Saccharomyces cerevisiae to A premium blend of

LIRAGOLD

Unique microencapsulated formula of bacteria and defined enzymes deliver a broad range, multi-prong approach to delivering high quality forages.

LIRA GOLD® Silage Inoculants

They contain researched and carefully selected microorganisms that stimulate fermentation faster at lower temperatures, effectively protecting more of the essential nutrients, improving the valuable nutritional quality of preserved forages.

The bottom line is that LIRA GOLD® Silage Inoculants innovative scientific approach is designed to lock in forage quality quickly to maximize the nutrient value for your herd.

A multi-use formula for all types of forages, including corn/sorghum, high moisture corn, small grain silage and haylage (grass & alfalfa).

LIRA GOLD® Silage Inoculant 50T Dry

Usage Rate: 1 lb per ton of silage Available in: 50 lb bags

LIRA GOLD® Silage Inoculant 50T WS or 100T WS

Usage Rate: 4.54 grams per ton of silage Available in: 8 oz packets (50 ton packet) 1 lb packets (100 ton packet)

LIRA GOLD® Silage Inoculant 250T WS Usage Rate: 1 gram per ton of silage Available in: 250 gram packets

LIRA GOLD® Silage Inoculant 500T WS Usage Rate: 1 gram per ton of silage Available in: 500 gram packets

LIRA GOLD® Organic Silage Inoculant 100T WS Usage Rate: 1 quart per ton of silage

Available in: 1 lb packets (100 ton packet) LIRA GOLD® Organic Silage Inoculant 50T Dry

Usage Rate: 1 lb per ton of silage Available in: 50 lb bags



NUTRITIONAL SOLUTIONS FOR HEALTH & PRODUCTIVITY

LIRA GOLD® Products are available from:



Proprietary Dairy Supplements Specifically Designed For:

- Feed Utilization and DMI
- Milk Production and Component
- Digestive Health & Immune Support
- Fresh Cow & Transition Management
- Heifer Growth & Performance
- Calf Health & Productivity



LIRA GOLD®

A division of The Daniel Baum Company 1383 Arcadia Road, Suite 102 Lancaster, PA 17601 800-992-3147 • info@danielbaumco.com

LIRA GOLD TRANSITION COW MANAGEMENT



Manufactured with 100% porcine gelatin capsules. Available in 40 count canisters or 128 count boxes

LIRA MicroGold™ Plus - a premium microbial supplement capsule with active dry cell yeast, bacteria and enzymes. Provide as a nutritional support during times of sluggish appetite, heat stress or stress during calving, shipping or feed changes. For best results use in conjunction with LIRA MicroGold VTM capsules.

Feeding Rate: one 15 g capsule per head, one to two times per day for up to three days.

LIRA MicroGold™ VTM - a premium vitamin-trace mineral nutritional supplement capsule with NiaShure™ niacin and mineral proteinates. Feed as a nutritional support during times of sluggish appetite, heat stress, or stress during calving, shipping, feed changes or when vitamin and trace mineral supplementation is indicated. For best results use in conjunction with LIRA MicroGold Plus capsules.

Feeding Rate: one 21 g capsule per head, one to two times per day for up to three days.

LIRA MicroGold™ D-Cal 710 - a premium vitamin D3 and calcium supplement capsule. Feed as a nutritional support at calving to help balance blood calcium levels or when vitamin D3 and calcium supplementation is warranted.

Feeding Rate: three 30 g capsules per cow at calving time, one to two times per day up to three days.

LIRA MicroGold™ NiaStart - a premium niacin and microencapsulated beneficial bacteria supplement capsule with NiaShure™ niacin. Provide as a nutritional support during times of sluggish appetite, heat stress or stress during calving, shipping, feed changes or when niacin and microencapsulated beneficial bacteria supplementation is indicated.

Feeding Rate: one or two 13.5 g capsules per head per day for up to three consecutive days.

LIRA MicroGold™ CMPK - a premium calcium, magnesium, phosphorus, potassium and vitamin D3 supplement capsule. Feed as a nutritional support at calving when calcium, magnesium, phosphorus, potassium or vitamin D3 is warranted.

Feeding Rate: one to three 34 g capsules per head at calving time, one to two times per day, for up to three days.

LIRA Paste/Gel Products



LIRA GOLD® Bovine Gel (300 g cartridge) - A source of live (viable), naturally occurring, host-specific microorganisms, targeted enzymes and strategic proteins in a gel form. Use LIRA GOLD Bovine Gel to support normal rumen function and populate beneficial bacteria during transition, stress and antibiotic therapy. Total Microbial Count: 1.5 Billion CFU/g

(Saccharomyces cerevisiae, Enterococcus faecium, Lactobacillus acidophilus, Bacillus subtilis, Bifidobacterium thermophilum and Bifidobacterium longum)

Feeding Rate: 21-28 g as needed, orally. (also available as LIRA GOLD Microbial Gel 80 g for younger/smaller animals)

LIRA GOLD® CMPK Gel Plus (400 g cartridge) - A premium combination of calcium, magnesium, phosphorous and potassium with micro-encapsulated beneficial bacteria. Designed to deliver key nutrients and provide digestive support to help fresh cows during post-calving challenges.

Feeding Rate: administer one tube at first sign of freshening or as soon as possible after freshening. Repeat 6-12 hours after freshening or as needed at 12 hour intervals.

LIRA GOLD® Calcium Paste (330 g cartridge) -

A gluconeogenic source of calcium, essential minerals and microencapsulated beneficial bacteria in a convenient paste tube. LIRA GOLD Calcium Paste contains propylene glycol and three forms of propionate to enhance energy balance and calcium levels

Feeding Rate: administer one tube as soon as possible after calving. Repeat as needed. Do not administer more than 3 doses in any 24 hour period.

LIRA GOLD® Fresh Cow Drenches

LIRA GOLD® Original Fresh Cow Drench (3.5 lb packs, 50 lb bags)

Provides a gluconeogenic source of calcium to help support energy balance and calcium levels in fresh cows while delivering a high dose of microencapsulated beneficial bacteria, yeast and targeted enzymes. Designed to provide key nutrients, hydration and digestible fiber to provide added supplementation in fresh cows challenged with post-calving metabolic issues. Includes alfalfa as an additional source of digestible fiber to support normal rumen bacteria function.



LIRA Paramount™ Drenches (11 lb and 50 lb foil laminate bags)

Paramount™ FCD: A premium gluconeogenic source of calcium and essential minerals for fresh cows. Paramount FCD should be an integral part of a fresh cow protocol to provide essential minerals, electrolytes and propionates to supplement cows negatively impacted by metabolic disorders post calving.

Feeding Rate: thoroughly blend 1 to 1-1/2 pounds of Paramount FCD with a minimum of 5 gallons of lukewarm, clear, fresh water and administer via an esophageal feeding

Paramount™ Boost: An add-in pack of microencapsulated beneficial bacteria, vitamins and additional essential minerals for fresh cows. Best when used as a complement to Paramount FCD when additional vitamins and microencapsulated beneficial bacteria are indicated.

Feeding Rate: thoroughly blend 1/2 to 1 pound of Paramount Boost with a minimum of 5 gallons of lukewarm, clear, fresh water and administer via an esophageal feeding system.

All LIRA GOLD® Products are manufactured with the highest quality ingredients. They contain no medication and require no withdrawal period.

NiaShure™ Niacin is a trademark of Balchem Corporation, New Hampton, NY

LIRA GOLD CALF PRODUCTS

LIRA NeoGold Pecti-MOS

(50 count canisters)

A premium capsule for administration during times of digestive upset containing 100% porcine gelatin, soluble and insoluble fiber, beta-glucans, MOS and Vitamins A, D3 and E. Feed as a nutritional support during times of stress during shipping, diarrhea or upset, or when fat soluble vitamin supplementation is

Feeding Rate: cattle under 500 lb administer two to four capsules per head one time per day for up to three days.



LIRA GOLD® HydroLyte Calf™

(12.5 lb pouches, 50 lb foil bags)

A premium source of electrolytes, essential minerals, protein and energy, that should be part of any routine calf

feeding protocol to encourage water consumption and maintain hydration for calves experiencing daily heat stress.

Feeding Rate: thoroughly blend 57 g with two quarts of fresh, clear water and provide as needed.



LIRA HydroGold Calf

(1000 gm foil packs, 5 kg pouches, 50 lb foil bags) A premium source of electrolytes, essential minerals, protein and energy, formulated to supplement the critical dietary

needs of stressed or moderately dehydrated calves. Feeding Rate: thoroughly blend 50 g with one guart of fresh, clear water and provide as needed.



LIRA GOLD® Vita Gold

(500 ml bottles with 20 cc syringe) A "micronized" form of fat-soluble vitamins and specific

water-soluble vitamins when short-term vitamin supplementation is indicated. It is manufactured to use the same mode of action as the small diameter, emulsified fats in maternal milk, providing a faster and more efficient administration of critical vitamins that greatly benefit the newborn calf. Equally effective for cows! Feeding Rate: administer 5 ml orally on back of tongue. Repeat as necessary.



LIRA GOLD® Calf Command

(4 and 25 lb pails, 40 lb bags)

An economical way to supply microencapsulated beneficial bacteria, enzymes, FOS, MOS and strategic proteins: blended into a water dispersible package that provides a cost effective solution matched to today's feeding practices. Feeding Rate: 10 grams per day for 10 to 14 days; thereafter, 5 grams per day until weaning.



LIRA GOLD® Calf Powder

(4, 20 and 40 lb pails, 40 lb bags) A supplemental electrolyte blend with added

microencapsulated beneficial bacteria and targeted enzymes for calves. It is further enhanced with our strategic protein package designed to deliver added support during the presence of disease-causing pathogens in the digestive tract. Designed to help maintain normal GI health to help produce healthy, fast growing calves. Can be mixed in milk or milk replacer, or blended with fresh water and offered between daily feedings of milk or milk replacer. Feeding Rate: 10 grams twice daily.



LIRA Pecti-Launch CP (11.3 lb pouches, 50 lb bags)

A novel formulation of oligosaccharides (FOS and MOS), essential minerals, electrolytes, soluble and insoluble,

fiber combined with dried egg proteins that delivers a multi-faceted approach to help maintain normal GI health, supplies electrolytes to help maintain normal fluid balance and support digestive system during times of stress in young calves.

Feeding Rate: mix 1 to 4 oz with 2 quarts warm water, milk or milk replacer, and feed 1 to 2 times daily.

LIRA GOLD® Golden Day 1 Oral Calf Paste (30 gram oral syringes)

A convenient oral paste for calves that provides a source of live (viable) naturally occurring microorganisms to support digestive health and beneficial microorganism population of the digestive tract. Each 30 gram syringe contains a full 5 ml dose of our popular Vita Gold "micronized" vitamin supplement. The inclusion of selenium yeast helps support a healthy, functioning immune system and the other ingredients help maintain normal digestive health.

Feeding Rate: for newborn calves, administer one full syringe after first colostrum. Repeat dosage if necessary within 24 hours

LIRA GOLD® 2-Day-70 Oral Calf Paste (30 gram oral syringes)

A convenient oral paste for calves to support during pre-weaning environmental stress. Inclusion of L-glutamine and L-threonine helps support normal GI health and digestion while novel yeast cell wall extracts and Saccharomyces cerevisiae spp. Boulardii supports healthy immune function.

Feeding Rate: for calves from two days of age through weaning, administer one full syringe during periods of digestive stress. Repeat dosage if necessary within 24 hours.

*Also available in capsule form. 5.2 gram caps in 50 ct. canisters

LIRA GOLD® Electrolyte Paste

(35 gram oral syringes)

An electrolyte supplement formulated for times of stress due to scours, heat stress or other calf-hood diseases. In addition to the major electrolytes sodium, potassium, magnesium and calcium, we have included a combination of zinc, copper, cobalt and manganese to guard against the deficiency of these nutrients due to dehydration. Feeding Rate: 1/2 to one full 35 gram syringe as needed.

LIRA GOLD® Microbial Gel (80 gram multi-dose oral syringes)

A multipurpose microbial gel provided in a convenient and compact package. Provides a source of live (viable) naturally occurring microorganisms to support digestive function and GI health during

times of environmental stress. Feeding Rate: body weight up to 500 lb - 5 cc, 500-800 lb - 10cc. 800 lb and up - 15 cc.

LIRA CharGel Calf Paste

(60 gram oral syringes)

A premium charcoal-based gel with electrolytes for use during digestive upset. Specific formulation designed to support GI health and normal healthy stools, during times of environmental stress. Feeding Rate: dispense contents of entire tube on the back of tongue, dispensing contents slowly allowing animal to swallow.