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Crystalyx® Blueprint® Close-Up Formula™ Crystalyx® Blueprint® Dry Cow Formula™ Crystalyx® Brigade® Stress Fighting Formula





DESIGNED FOR PRODUCERS WHO WANT HEALTHY GROWING CALVES TODAY AND HIGHER HERD PRODUCTIVITY TOMORROW.

- IMPROVES GROWTH, PERFORMANCE AND EFFICIENCY
- IMPROVES GUT HEALTH AND FUNCTION
- HELPS DEVELOP THE CALF'S NATURAL DEFENSE SYSTEM
- REDUCES THE RISK OF DISEASE AND MORTALITY
- INCREASES DAIRY PROFITABILITY

FEATURES & BENEFITS:

100% Organic Trace Minerals Elevated levels of vitamins Promotes optimal health

Early health and growth, better lifetime productivity and achievement of genetic potential are the keys to successful dairy herds – our Blueprint[®] Milk Replacers were developed to give producers the best possible option in early calf rearing.

Masterfeeds Blueprint® Milk Replacers

Always provide adequate clean fresh water. | Contact your Masterfeeds Account Manager for specific feeding directions.

All three Blueprint[®] Milk Replacers are made with high quality all-milk protein ingredients with essential amino acids added to achieve optimal growth performance. The fat content was specifically formulated to mimic the composition of mother's milk and provide the calf with essential fatty acids required for growth and health.

At the core of Blueprint's[®] high plane of nutrition are unique natural solutions from Alltech including Actigen[®], probiotics, essential oils/botanicals, 100% chelated minerals and elevated levels of vitamins.



PRODUCT # PLAIN – 400060 / DECCOX® – 400070

The most economical Blueprint[®] option in the new line. Incorporating the benefits of the technologies at lower inclusion rates and still made with 100% organic trace minerals for a higher than standard plane of nutrition. Blueprint 26:18 PRODUCT # PLAIN - 400061/ DECCOX® - 400071



Designed for full-potential programs and farms looking to add weight to calves quickly and efficiently. The 20% fat level will aid in increasing body condition and for stress-prone calves or calves in hutches over the winter.

Total Replacement Technology® 100% ORGANIC TRACE MINERALS

Formulated with Solutions from

A better source – less mineral, really is more mineral working for your calves. **Bioplex**[®] | **Sel-Plex**[®]

Trace minerals are essential for life. Getting them into your animals is one thing, absorbing them efficiently for energy/fuel for optimal health and performance benefits, is another. There are two kinds of trace minerals – inorganic and organic. Essentially, the difference comes down to the rock form (inorganic), which has limited "bioavailability", compared to the natural plant-like form (organic), which has very high bioavailability – or the degree to which a nutrient in a feed is absorbed and metabolized by the animal – the better the bioavailability, the better the fuel that gets used by the animal.

Masterfeeds Blueprint[®] Milk Replacers are formulated with Total Replacement Technology[™] (TRT) – 100% organic trace minerals that promote better absorption, retention and utilization in the digestive process. Modern management of mineral nutrition can take place at significantly lower inclusion levels which also corresponds with global environmental expectations of reduced mineral excretion.

For farming life. Masterfeeds

an **Altech**[®] company

TARGETED NUTRITION Sueprint **MILK REPLACERS**

DAIRY CALF NUTRITION WITH TOTAL REPLACEMENT TECHNOLOGY®

Milk Replacers made with 100%organic trace mineral sources.

Masterfeeds Blueprint[®] Milk Replacers are formulated with Total Replacement Technology™ (TRT) – the innovation of chelated trace minerals in the form of Bioplex[®] and Sel-Plex[®]. This means that the minerals in these products will be better absorbed, stored and utilized by your calves.

Bioplex + Sel-Plex Total Replacement Technology E

- Coated with amino acids to prevent reaction with each other **Bioplex**[®]

Bioplex[®] is a range of organic trace minerals. Provides mineral nutrition in the form of zinc, copper,

manganese, and iron as close to nature as possible.

About Organic Minerals

When *inorganic* minerals are fed to animals, they are poorly absorbed due to the interactions the metal ions have with each other, as well as the low pH in the gastrointestinal tract. A large portion are simply flushed right through the digestive system.

Organic minerals are protected from these negative interactions by *chelation* – they are absorbed and utilized much more efficiently and in much smaller amounts.

"Essential nutrients", including vitamins and minerals, must be obtained through diet because an animal cannot produce in sufficient quantities biologically. So, quite slimply - a better mineral source, sives you better mineral absorbtion and better ability to turn those minerals into working energy.

natural, organic Selenium

Sel-Plex[®] - naturally-occurring form

- works together with Vitamin E

an essential

antioxidant for HEALTH



FOR FULL POTENTIAL GROWTH & GOOD HEALTH

MasterCalf[™] 24-24-16 milk replacer has been designed for Masterfeeds full potential calf feeding programs. This premium milk replacer contains a combination of leading technology to increase calf health status as well as performance, promoting leaner and larger frame replacement heifer calves. This formulation boasts live weight gain, increased feed efficiency and a more complete development of key physiological systems including hormonal, gastric and immune systems.

MIXING DIRECTIONS:

Individual Calf:

Week 1: While stirring, pour 0.38 kg of milk replacer powder into 1.5 litres of 38 to 45°C water. Mix thoroughly and add 38 to 45°C water to bring to a total volume of 2.5 litres of milk replacer solution.

Week 2 through Week 7: While stirring, pour 0.53 kg of milk replace powder into 2.5 litres of 38 to 45°C water. Mix throughly and add 38 to 45°C water to bring to a total volume of 3.5 litres of milk replacer solution.

Milk Replacer Powder	Fresh, Clean Potable Water	Water Temperature
150 grams	Add water to make 1,000 mls of milk replacer solution	38 to 45°C

FEEDING DIRECTIONS:

Individual Calf:

Week 1: Feed 2.5 litres of milk replacer solution twice daily.

Week 2 through Week 6: Feed 3.5 litres of milk replacer solution twice daily. When under heat stress, delay this increase until week three.

Week 7: Feed 3.5 litres of milk replacer solution once per day. Wean only if calf is consuming at least 0.7 kg of calf starter for three consecutive days.

FEATURES & BENEFITS:

Elevated protein content. Accelerated growth rates.

Contains high quality spray-dried all milk ingredients. No plant protein. Ensures maximum digestion and reduces risk of scours. **Contains high quality spray-dried fats with antioxidants.** Reduces fat separation, increases digestion and absorption and maintains freshness.

Contains soluble fibre. Stimulates early rumen development thus aiding early weaning. Soluble fibre has also been associated with better feed conversion rates, increased protein digestibility, lower mortality, reduced incidence of scours and better vitality.

Contains bio-active fatty acid lipid technology. Improved immunity – combines higher plain of nutrition with unique bioactive fatty acid technology to balance functional lipid intake.

Contains organic acids for partial acidification. Mild acidification slightly reduces the pH of the milk replacers, which in turn reduces the time during which the abomasum pH is elevated, allowing for improved digestion. It also helps to minimize the growth of E. coli organisms and the bloat or scours they may cause.

Contains flavouring agents to emulate cow's milk. Promotes quicker acceptance of milk replacer.

This feed contains added Selenium at 0.3 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	24.0%
Crude Protein Milk Sources (minimum)	24.0%
Crude Fat (minimum)	16.0%
Crude Fiber (maximum)	1.25%
Calcium (actual)	1.0%
Phosphorus (actual)	0.75%
Sodium (actual)	0.65%
Vitamin A (minimum)5	50,000 IU/kg
Vitamin D (minimum)	.7,500 IU/kg
Vitamin E (minimum)	150 IU/kg

Masterfeeds^a Dairy Nutrition
 an Altech^a company

MILK REPLACER





GROWTH SPUR

22-22-17 ALL-MILK PROTEIN MEDICATED

FOR ENHANCED Calf Performanc & Good Health

A proven performer.

A premium all milk 22-22-17 milk replacer that will promote optimum lean muscle growth in calves. The medicated formulation ensures calves are protected from coccidiosis from day one. Additionally, MOS (mannanoligosaccarhides) and high levels of minerals and vitamins, including vitamin E, ensure calves have healthy gut function and a strong immune system.

Give calves enough water Use the chart below as a guide to adequate watering.





Have a question? Email dairy@masterfeeds.com Masterfeeds[®] Growth Spurt[™] 22-22-17 (plain or medicated) is a premium all-milk protein milk replacer specifically designed for lean muscle growth. Growth Spurt 22-22-17 is formulated with chelated minerals and MOS (manno-oligosaccharides) to promote strong, lean, healthy calves. This milk replacer is available in a medicated option to protect calves from coccidia infection.

FEEDING DIRECTIONS:

Calf Weight (kg)	Decoquinate in Milk Replacer POWDER (mg)	Milk Replacer POWDER (grams)	Milk Replacer SOLUTION (ml/day)
35 – 40	17.5 – 20.0	700 - 800	5,230 – 5,973*
41 – 45	20.5 – 22.5 g	820 - 900	6,123 - 6,720
46 - 50	23.0 – 25.0 g	920 - 1,000	6,869 – 7,467
51 – 55	25.5 – 27.5 g	1,020 - 1,100	7,616 – 8,213
56 - 60	28.0 - 30.0	1,120 - 1,200	8,363 – 8,960
61 - 65	30.5 - 32.5	1,220 - 1,300	9,110 - 9,707

22-22-17

(PI AIN OR MEDICATED)

* 150 grams of milk replacer mixed into 1,000 ml of water produces 1,120 ml of milk replacer solution.

FEATURES & BENEFITS:

Contains 22% protein. Optimum lean muscle growth.

Contains 17% fat, homogenized. Excellent performance with less nutrition scours.

High levels of vitamins & minerals, especially vitamin E. Improved calf health.

Chelated minerals. For improved absorption of minerals.

Contains MOS (manno-oligosaccharides). Ties up gramnegative bacteria in the gut. Carries infectious organisms out of the animal thus reducing the challenge of infection. Enhances immunity.

Deccox M®. Prevents infection from Coccidia.

NOTE:

Store this product in a cool dry location protected from the sun. To maintain freshness, keep partially used bag closed tightly after opening and store in a clean, closed plastic container.

Net Weight 20 kg Product #: PLAIN – 405702 MEDICATED – 405698

FEEDING TIPS:

FOR ENHANCED CALF

PERFORMANCE & GOOD HEALTH

- 1. Feed about two litres of good quality colostrum twice daily beginning no later than six hours following birth.
- 2. Feed this feed continuously during periods of early growth.
- 3. Fresh, clean water should be available at all times.
- 4. During winter months, a third feeding can be introduced to reduce the effects of cold stress on calves.
- 5. When starter intake reaches 0.75 kg per calf per day consistently for two to three days, the calf is eligible to be weaned and fed exclusively MasterCalf 24% Calf Starter or Power Calf 22% Calf Starter on a free choice basis.
- 6. Feeding Mastrfeeds Dairy Program, including the recommended starter and grower program within an accelerated calf management system, resulted in heavier calves, calves with greater hip height and width, greater heart girth, body length and total body volume, when compared to a more traditional program.

This feed contains added Selenium at 0.3 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	22.0%
Protein from Milk Sources (minimum)	22.0%
Crude Fat, minimum	17.0%
Crude Fiber (maximum)	0.15%
Calcium (actual)	0.95%
Phosphorus (actual)	0.7%
Sodium (actual)	0.55%
Vitamin A (minimum)	40,000 IU/kg
Vitamin D ₃ (minimum)	4,000 IU/kg
Vitamin E (minimum)	150 IU/kg

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FOR YOUNG CALVES Receiving a milk replacer or of weaning age

Masterfeeds 19% Calf Starter Ration (pellet/textured) contains high quality ingredients to promote rapid adaptation to solid feed, providing the nutrition to maintain growth momentum and achieve genetic potential.

WHO USES:

A performance oriented producer who sees the benefits of increased early weight gain for faster weaning and taller framed heifers at breeding.

FEEDING DIRECTIONS:

Feed 19% Calf Starter free-choice along with the required amount of whole milk or milk replacer up to weaning, and then feed as the primary feed with small amounts of good quality hay to 12 weeks of age. Provide continuous access to fresh water. For more information, please contact your Masterfeeds Account Manager.

FEEDING TIPS:

- 1. Feed free choice along with the required amount of whole milk or milk replacer up to weaning, and then feed as the sole ration up to three months of age.
- 2. From three to six months of age, feed up to 2 to 3 kg per day with free choice high quality dry forage.
- 3. Provide clean, fresh water at all times.

FEATURES & BENEFITS:

Contains 19% all vegetable protein. Supplies the appropriate amount of protein level to maintain growth momentum.

High level of digestible energy. Supplies the appropriate energy required for rapid rumen development and optimum growth rates.

Highly fortified with essential minerals and vitamins. Enhances growth rate and supports the immune system.

Contains milk flavoring. Enhances intake and speed the transition from milk to dry feed.

Available medicated with Deccox® or Rumensin®. Aids in the prevention of coccidiosis.

Textured option available.

Pellet, flaked corn, oat, and molasses.

This feed contains added Selenium at 0.3 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	19.0%
Crude Fat (minimum)	3.5%
Crude Fiber (maximum)	6.0%
Calcium (actual)	1.0%
Phosphorus (actual)	0.5%
Sodium (actual)	0.3%
Vitamin A (minimum)26	,000 IU/kg
Vitamin D (minimum)4	,300 IU/kg
Vitamin E (minimum)	95 IU/kg

Net Weight 25 kg Product # (Pellets): 401415 (PLAIN) | 40141501 (RUM) | 40141502 (DEC) Product # (Textured): 401409 (PLAIN) | 40140902 (RUM) | 40140901 (DEC) CALF STARTER



Give her the best possible start and achieve results.



DEVELOPMENT FACTS

- > 50% of lifetime height growth occurs in the first six months.
- > 25% of lifetime weight gain occurs in the first six months.
- > Rumen development is the key to optimum production efficiency.
- > For the rumen to develop properly it needs to be stimulated by the ingestion and digestion of solid feed.
- > As a calf grows the rumen enlarges as the abomasum/stomach shrinks. This is a critical stage in the animal's development.
- > The younger the animal, the more efficient she is at converting feed.
- > Proper nutrition is critical to achieving optimal growth to reach full genetic potential.
- > Premium quality protein and carbohydrate ingredients increase nutrient absorption.
- > Early mammary cell growth and proliferation will optimize future milk production.

IMPORTANT RUMEN DEVELOPMENT

- > Longer and more developed rumen papillae for greater absorption.
- > Greater blood capillary growth, for more volatile fatty acid absorption.
- > Greater overall rumen development.

POWERCALF[®] THE NEXT GENERATION IN CALF PERFORMANCE.

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21X BIRTH WEIGHT Calves more than doubled their birth weight at weaning.

HE POWER.

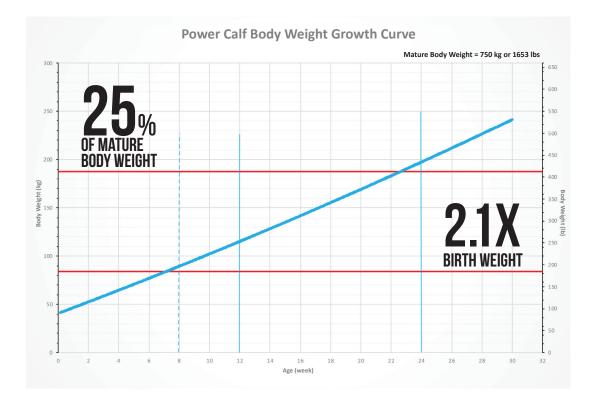


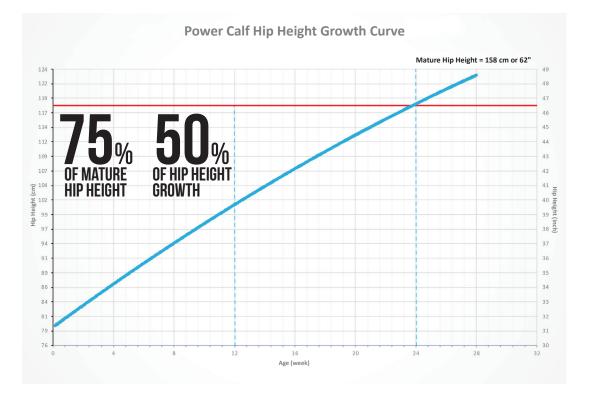
Power Calf[™] provides nutrients beyond those simply required for maintenance and conventional growth needs. Power Calf[™] technology boosts calves natural immune defenses, allowing animals to spend more energy on growing and less energy fighting off environmental challenges.



Results based on routine collection of performance data from 20 herds in Ontario, calves fed Power Calf™ Starter until 12 weeks of age, followed by 12 weeks of Power Calf™ Grower. Calves fed high protein milk replacer and weaned at eight to nine weeks.







Masterfeeds Dairy Nutrition
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Power Calf[™] 22% Calf Starter is a blend of unique, proprietary ingredients available exclusively in calf starters from Masterfeeds. When used as a key element in a well-managed calf nutritional program, Power Calf[™] Starter can optimize efficiency and calf growth rates and support immunity, thus contributing to an increase in profit potential.

KEY POINTS:

- 22% protein from all vegetable sources.
- Premium quality protein and carbohydrate ingredients to increase nutrient absorption.
- Enhances immune system development.
- Contains highly palatable ingredients and proprietary flavours to increase daily intake.
- Promotes lean growth so heifers grow taller and faster.
- Promotes early mammary cell growth and proliferation to optimize future milk production potential.
- Contains unique fiber sources to stimulate gut development.
- Pelleted or Textured products.

FEEDING DIRECTIONS:

Feed Power Calf[™] Starter ad-lib from two to three days of age until 12 weeks, no hay.

Always have free-choice water available for calves. Changes to the feeding program should be made gradually for adaptation to take place. Follow an on-farm feeding program provided by your Masterfeeds Account Manager.

FEATURES & BENEFITS:

Proprietary natural palatability enhancer. Early, high starter intake; gain more weight; greater structural growth; optimized feed/gain.

Proprietary immune modulating compound. Activates key white cell blood count cells; stronger immune system; increased effectiveness of vaccines and antibiotics; animal energy is used for growth, not for fighting health challenges.

Unique prebiotic dietary fiber which helps maintain health of the lower gut. Promotes exclusion of undesirable bacteria in intestinal tract.

Unique source of fiber. Better fiber digestion and VFA production; rumen development.

Available medicated with Rumensin® or Deccox®. Aids in the prevention of coccidiosiss.

This feed contains added Selenium at 0.30 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	22.0%
Crude Fat (minimum)	2.3%
Crude Fiber (maximum)	13.0%
Calcium (actual)	1.0%
Phosphorus (actual)	0.5%
Sodium (actual)	0.2%
Vitamin A (minimum)3	3,300 IU/kg
Vitamin D (minimum)	5,500 IU/kg
Vitamin E (minimum)	110 IU/kg

Net Weight 25 kg Product # (Pellets): 401331 (PLAIN) | 40133101 (RUM) | 40133102 (DEC) Product # (Textured): 401319 (RUM) | 401317 (DEC)





Power Calf[™] 18% Calf Grower is proven to continue optimal growth in weight and frame and average daily gain, and to support rumen papillae development. Power Calf[™] Grower provides all critical needs for helping a healthy weaned calf become a dairy cow with more profit potential by optimizing mammary gland proliferation which results in increased lifetime milk production.

RESEARCH PROVEN*

Studies show that calves fed Power Calf[™] Grower:

- ADG of 1.0 kg (2.2 lbs) Calves grew 0.9 to 1.1 kg (1.9 to 2.4 lbs) per day depending on herd mature body weight.
- Calves grew on average 2.3 cm (0.9") every 10 days between birth and 24 weeks.
- Calves achieve 25% of their mature body weight at 24 weeks of age.
- Calves double their birth weight at weaning.

*Results based on routine collection of performance data from 20 herd in Ontario, calves fed Power Calf[™] Starter until 12 weeks of age, followed by 12 weeks of Power Calf[™] Grower. Calves fed high protein milk replacer and weaned at eight to nine weeks.

FEEDING DIRECTIONS:

Feed Power Calf[™] Grower from three to six months of age at a rate of 3.0 to 4.5 kg (6.6 to 9.9 lbs) per day with free-choice good quality forage.

Always have free-choice water available for calves. Changes to the feeding program should be made gradually for adaptation to take place. Follow an on-farm feeding program provided by your Masterfeeds Account Manager.

FEATURES & BENEFITS:

Contains 18% all vegetable protein. Supplies the appropriate amount of protein level to maintain growth momentum.

High level of digestible energy. Supplies the appropriate energy required for rapid rumen development and optimum growth rates.

Contains a digestible fiber source. Stimulates development of the rumen.

Highly fortified with essential minerals and vitamins. Enhances growth rate and supports the immune system.

Natural palatability enhancer. Speeds up intake and the transition from milk to dry feed.

Available medicated with Rumensin® or Deccox®. Aids in the prevention of coccidiosis.

This feed contains added Selenium at 0.30 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	
Crude Fat (minimum)	2.0%
Crude Fiber (maximum)	14.0%
Calcium (actual)	1.0%
Phosphorus (actual)	0.44%
Sodium (actual)	0.22%
Vitamin A (minimum)	18,000 IU/kg
Vitamin D (minimum)	3,000 IU/kg
Vitamin E (minimum)	55 IU/kg

Net Weight 25 kg Product # (Pellets): 401329 (PLAIN) | 40132901 (RUM) | 40132902 (DEC) Product # (Textured): 401324 (RUM) | 401327 (DEC)



FOR CALVES AGES 3 DAYS - 12 WEEKS



'ED CALF STARTER

Masterfeeds 24% Medicated Calf Starter (multi-particle) contains high quality ingredients to promote rapid adaptation to solid feed, providing the nutrition to maintain growth momentum and achieve genetic potential.

WHO USES:

A performance oriented producer who sees the benefits of increased early weight gain for faster weaning and taller framed heifers at breeding.

FEEDING DIRECTIONS:

Feed 1.0 kg for each 60 kg bodyweight. Feed continuously for at least 28 days during periods of Coccidiosis or when it is likely to be a hazard. Feed as a complete feed to calves along with forage. Changes to the feeding program should be made gradually for adaptation to take place. Follow an on-farm feeding program provided by your Masterfeeds Account Manager. **High level of digestible energy.** Supplies the appropriate energy required for rapid rumen development and optimum growth rates.

Contains a digestible fiber source. Stimulates development of the rumen.

Highly fortified with essential minerals and vitamins. Enhances growth rate and supports the immune system.

Contains milk flavoring. Enhances intake and speed the transition from milk to dry feed.

Medicated with Deccox®. Aids in the prevention of coccidiosis.

FEEDING TIPS:

- Feed free choice along with the required amount of whole milk or milk replacer up to weaning, and then feed as the sole ration up to three months of age.
- 2. From three to six months of age, feed up to 2 to 3 kg per day with free choice high quality dry forage.
- 3. Provide clean, fresh water at all times.

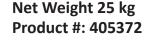
FEATURES & BENEFITS:

Contains 24% all-vegetable protein. Supplies the appropriate amount of protein level to maintain growth momentum.

Unique multi-particle formulation.

Unique 24% milk protein multi-particle formulation, an energy nugget and textured pellet and a special flavoured coating increases palatability and enhances intake. This feed contains added Selenium at 0.3 mg/kg.

Crude Protein (minimum)	24.0%
Crude Fat (minimum)	
Crude Fiber (maximum)	
Calcium (actual)	
Phosphorus (actual)	0.7%
Sodium (actual)	
Vitamin A (minimum)	300 IU/kg
Vitamin D (minimum)5,	000 IU/kg
Vitamin E (minimum)	100 IU/kg





MEDICATED CALF STARTER





POWER TRACK

FULL POTENTIAL PERFORMANCE FOR DAIRY HEIFERS 24 WEEKS THROUGH BREEDING TO PRE-FRESH

LIFETIME PERFORMANCE.

GIVE HER THE BEST POSSIBLE START. ACHIEVE BETTER RESULTS.





REPLACEMENT HEIFER PROGRAM	READY. SET. PERFORM.	FULL POTENTIAL PERFORMANCE FOR DAIRY HEIFERS 24 WEEKS THROUGH BREEDING TO PRE-FRESH	MANCE FOR DAIRY HEIFERS EEDING TO PRE-FRESH
DECISION TREE	START Do you have all the necessary ingredients to make a complete heifer ration on-farm?	y ingredients tion on-farm?	Could your heifers be exposed to stress regularly?
NO Do you have adequate grain supply on-farm to supplement your heifers?	0 uate grain supply nent your heifers?	¥ES	¥
0	VES VES Supplement Do your heifers receive good quality forages that are high in protein?		
↓ 18% COMPLETE FEED	YES NO 32% SUPPLEMENT 36% SUPPLEMENT	ү РREMIX/РREMIX+HH	BRIGADE STRESS FIGHTING FORMULA TM
HEIFER GRO 18% COMPLETE FEED A blend of necessary nutrients including Alltech's TRT® technology. Intended to be limit- fed with high quality forages.	32% & 36% SUPPLEMENTS Nutritional supplements including protein, vitamins and Alltech's TRT® technology.	PREMIX/PREMIX+HH Mineral supplement including protein, vitamins and Alltech's TRT® technology.	Content of the second s

POWER TRACK

HEIFER GRO 18% COMPLETE FEED (Plain or medicated)

COMPLETE BLEND OF Nutrients for Developing Dairy Heifers

Power Track[™] Heifer Gro 18% Complete Feed extends the growth benefits achieved in superior calf feeding programs, keeping heifers growing through breeding to pre-fresh so they can more easily transition into the lactating herd. Power Track[™] Heifer Gro 18% conveniently offers a blend of nutrients that replacement dairy heifers need for optimal development.

GUIDELINES FOR USE:

- 1. Begin feeding Power Track[™] Heifer Gro 18% Complete Feed to heifers as they reach 24 weeks of age and continue use through breeding.
- 2. Limit-feed as part of a balanced total ration along with good quality forage and fresh, clean water. Do not exceed 0.3 ppm added Selenium in total ration. Contact a Masterfeeds Account Manager for more information.

Contains Optigen®. Provides sustained availability of ammonia to the rumen environment, resulting in enhanced microbial protein production, fiber digestion and efficient rumen nitrogen capture.

NOTE:

Power Track[™] Heifer Gro 18% Complete Feed is also available medicated with Rumensin[®].

FEATURES & BENEFITS:

Feeding a balanced ration helps avoid overfeeding and underfeeding heifers, and proper nutrition may potentially reduce breeding challenges, calving difficulties and early lactation metabolic problems.

Pellets. 18% high quality protein.

Complete feed. Provides essential protein, energy, key vitamins and readily available minerals needed for optimal heifer growth and development.

Ideal for operations that raise heifers either on pasture or in a controlled environment.

Alltech's Total Replacement Technology® (TRT). Achieved through the inclusion of chelated trace minerals in the form of Bioplex® and Selenium yeast in the form of Sel-Plex®, TRT replaces all inorganic sources of trace minerals and Selenium. Organic minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health. This feed contains added Selenium at 0.65 mg/kg.

Crude Protein (minimum)	
Crude Fat (minimum)	
Crude Fibre (maximum)	12.0%
Calcium (actual)	1.1%
Phosphorus (actual)	0.6%
Sodium (actual)	0.28%
Vitamin A (minimum)	20,000 IU/kg
Vitamin D (minimum)	3,300 IU/kg
Vitamin E (minimum)	120 IU/kg



POWER TRACK REPLACEMENT HEIFER PROGRAM 32% OR 36% SUPPLEMENTS (PLAIN OR MEDICATED)

CONCENTRATED SOURCE OF NUTRIENTS FOR Developing dairy heifers

Power Track[™] 32% or 36% Supplements help extend the growth benefits achieved in superior calf feeding programs, keeping heifers growing through breeding to pre-fresh so they can more easily transition into the lactating herd. Adding a convenient concentrated source of protein, vitamins and minerals for developing dairy heifers has never been easier.

GUIDELINES FOR USE:

- 1. Begin adding Power Track[™] Heifer Supplements to heifer rations as heifers reach 24 weeks of age and continue use through breeding.
- 2. Feed as part of a balanced heifer ration along with adequate amounts of good quality forage and fresh, clean water.

FEATURES & BENEFITS:

Feeding a balanced ration helps avoid overfeeding and underfeeding heifers, and proper nutrition may potentially reduce breeding challenges, calving difficulties and early lactation metabolic problems.

Convenient. Add to mixed feeds (forage, on-farm grains and commodities) to provide essential protein, energy, key vitamins and readily available minerals needed for optimal heifer growth and development.

Ideal for operations that use on-farm commodities to supplement their heifer feeding ration

Alltech's Total Replacement Technology® (TRT).

Achieved through the inclusion of chelated trace minerals in the form of Bioplex[®] and Selenium yeast in the form of Sel-Plex[®], TRT replaces all inorganic sources of trace minerals and Selenium. Organic minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health.

Contains Optigen®. Provides sustained availability of ammonia to the rumen environment, resulting in enhanced microbial protein production, fiber digestion and efficient rumen nitrogen capture.

NOTE:

Power Track[™] Heifer Supplements are also available medicated with Rumensin[®].



This feed contains added Selenium at 2.8 mg/kg.

GUARANTEED ANALYSIS 32%

Crude Protein (minimum)	
Crude Fat (minimum)	
Crude Fibre (maximum)	6.0%
Calcium (actual)	
Phosphorus (actual)	0.9%
Magnesium (actual)	0.7%
Sulfur (actual)	
Sodium (actual)	1.2%
Potassium (actual)	1.3%
Iodine (actual)	6 mg/kg
Copper (actual)	124 mg/kg
Manganese (actual)	244 mg/kg
Zinc (actual)	458 mg/kg
Cobalt (actual)	3 mg/kg
Vitamin A (minimum)	85,000 IU/kg
Vitamin D (minimum)	14,000 IU/kg
Vitamin E (minimum)	500 IU/kg

* Equivalent Crude Protein from non-protein sources (max%) 3.5.

GUARANTEED ANALYSIS 36%

Crude Protein (minimum)	
Crude Fat (minimum)	2.6%
Crude Fibre (maximum)	5.5%
Calcium (actual)	3.0%
Phosphorus (actual)	0.9%
Magnesium (actual)	
Sulfur (actual)	0.4%
Sodium (actual)	1.2%
Potassium (actual)	1.5%
Iodine (actual)	
Copper (actual)	123 mg/kg
Manganese (actual)	245 mg/kg
Zinc (actual)	458 mg/kg
Cobalt (actual)	3 mg/kg
Vitamin A (minimum)	
Vitamin D (minimum)	
Vitamin E (minimum)	500 IU/kg

* Equivalent Crude Protein from non-protein sources (max%) 4.0.

Net Weight 25 kg 32% Product #: 401485 (PLAIN) | 40148501 (MEDICATED) 36% Product #: 401489 (PLAIN) | 40148901 (MEDICATED)



Power Track[™] Heifer Premix with Alltech's Total Replacement Technology[®] (TRT) provides heifers with adequate and consistent vitamin and trace mineral nutrition to help support improved growth, greater immunity and claw integrity for increased lifetime profitability. With a blend of vitamins and high absorption trace minerals necessary for a fully functioning immune system, our Heifer Premix helps you achieve greater profitability.

GUIDELINES FOR USE:

- 1. Power Track[™] Heifer Premix is recommended for use in TMR rations or mixed with grain.
- 2. For accurate ration balancing and feeding recommendations, analyze forages and utilize a dairy ration balancing program.
- 3. Provide clean, fresh water near the feeding area.

FEATURES & BENEFITS:

Trace minerals. Essential for a wide variety of physiological processes, regulating growth, milk production, reproduction and health.

Organic trace minerals. Increased growth rates, improved first lactation milk yield, greater support for reproductive performance.

Alltech's Total Replacement Technology® (TRT). Achieved through the inclusion of chelated trace minerals in the form of Bioplex® and Selenium yeast in the form of Sel-Plex®, TRT replaces all inorganic sources of trace minerals and Selenium. Organic minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health. NOTES:

Power Track[™] Heifer Premix is also available medicated with Rumensin[®].

This feed contains added Selenium at 22.0 mg/kg.

Calcium (actual)	
Phosphorous (actual)	
Magnesium (actual)	
Sulfur (actual)	0.5%
Sodium (actual)	8.69%
Potassium (actual)	0.3%
Iodine (actual)	48 mg/kg
Copper (actual)	
Manganese (actual)	1,600 mg/kg
Zinc (actual)	
Cobalt (actual)	22 mg/kg
Vitamin A (minimum)	660,000 IU/kg
Vitamin D (minimum)	110,000 IU/kg
Vitamin E (minimum)	





BLEND OF VITAMINS & MINERALS For hoof health

Power Track[™] Heifer Premix + HH Formula with Alltech's Total Replacement Technology[®] (TRT) delivers a combination of essential trace minerals which have been shown to support immunity, address hoof health issues and support improved reproductive response.

GUIDELINES FOR USE:

- 1. Use Power Track[™] Heifer Premix + HH Formula 60 days prior to expected foot lesion development.
- Power Track[™] Heifer Premix + HH Formula is recommended for use in TMR rations or mixed with grain.
- 3. For accurate ration balancing and feeding recommendations, analyze forages and utilize a dairy ration balancing program.
- 4. Provide clean, fresh water near the feeding area.

FEATURES & BENEFITS:

Trace minerals. Essential for a wide variety of physiological processes, regulating growth, milk production, reproduction and health.

Organic trace minerals. Increased growth rates, improved first lactation milk yield, greater support for reproductive performance.

Alltech's Total Replacement Technology® (TRT). Achieved through the inclusion of chelated trace minerals in the form of Bioplex® and Selenium yeast in the form of Sel-Plex®, TRT replaces all inorganic sources of trace minerals and Selenium. Organic Minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health.

NOTES:

Do not feed to lactating cattle.

Power Track[™] Heifer Premix + HH Formula is also available medicated with Rumensin[®].

This feed contains added Selenium at 22.0 mg/kg.

Calcium (actual)	
Phosphorous (actual)	4.8%
Magnesium (actual)	3.0%
Sulfur (actual)	0.6%
Sodium (actual)	8.71%
Potassium (actual)	0.3%
Iodine (actual)	240 mg/kg
Copper (actual)	800 mg/kg
Manganese (actual)	2,600 mg/kg
Zinc (actual)	4,799 mg/kg
Cobalt (actual)	25 mg/kg
Vitamin A (minimum)	660,000 IU/kg
Vitamin D (minimum)	110,000 IU/kg
Vitamin E (minimum)	







24 Dry Cow Close-Up Ration

High protein complete feed for non-lactating dairy cattle during the last tree weeks of the dry period

Masterfeeds Blueprint[®] 24 Dry Cow Close-Up Ration is a high protein dry cow pellet, designed to be limit-fed to non-lactating dairy cattle during, the last three weeks of the dry period. It contains a unique blend of protein ingredients, highly digestible fibre sources, vitamins, minerals, and special ingredients to optimize rumen health and function.

Feeding & Management Notes:

Feed Blueprint[®] 24 Dry Cow Close-Up Ration as part of a nutritionally balanced diet at a rate of 4 kg per head per day for a minimum of three weeks before calving.

Features & Benefits:

24% High-quality Protein. Delivers a minimum of 450 g of metabolizable protein with a balanced amino acid profile to meet the dry cow's requirements.

Optigen®. Provides sustained availability of ammonia to the rumen environment, resulting in enhanced microbial protein production, fiber digestion and efficient rumen nitrogen capture.

Fermentable fibres. Quality fibrous ingredients to supply the rumen microorganisms with highly fermentable NDF and energy. Promotes proper rumen adaptation and stabilizes the rumen environment.

Dietary Escape Microbial Protein (EMP). A revolutionary microbial protein technology designed to provide a unique, high-quality protein source that delivers the complete array of essential amino acids to the dry cow.

Available medicated with Rumensin®. Aids in the prevention of coccidiosis.

Alltec's Mineral Total Replacement Technology (TRT). Achieved through the inclusion of chelated trace minerals in the form of Bioplex® and Selenium yeast in the form of Sel-Plex®, TRT replaces all inorganic sources of trace minerals and Selenium. Alltech Minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health. **High levels of Vtamin E.** Helps reduce the incidence of retained placentas and mastitis after calving. It optimizes animal health and performance.

Yea-Sacc[®] ¹⁰²⁶. Live yeast cells that stimulate the growth of ruminal bacteria, improves rumen fermentation, fibre digestion and feed efficiency.

Select GH®. Maintains gut health and integrity, promotes good bacteria and builds defenses, supports the efficient transfer of nutrients from cow to calf.

Anionic supplement. A palatable source of chloride and sulfur to reduce DCAD in dry cow diets. Reducing DCAD during the dry phase helps improve calcium status and performance during lactation.

This feed contains added Selenium at 1.50 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	24.0%*
Crude Fat (minimum)	2.0%
Crude Fibre (maximum)	10.0%
Calcium (actual)	2.5%
Phosphorus (actual)	0.6%
Sodium (actual)	
Vitamin A (minimum)	45,000 IU/kg
Vitamin D (minimum)	7,500 IU/kg
Vitamin E (minimum)	500 IU/kg

* Including not more than 5.0% equivalent Crude Protein from non-protein nitrogen.

Net Weight 25 kg Product #: Plain – 401438 Medicated – 401439



DRY COW CLOSE UP RATION





TRANSCOW 18 COMPLETE FEED DRY COW RATION

FOR NON-LACTATING Dairy Cattle During The Last Three Weeks of the Dry Period

Enhance the well being and profitability of your dairy cattle.

The transition period is the most important phase of a dairy cow's lactation cycle. It is also the most challenging as there is a potential for a dramatic increase of infectious diseases and metabolic disorders, negatively affecting the health, production and profitability of dairy cattle.

TransCow 18 has been developed to enhance the adaptability of dry cows to the physiological changes that occur before, during and after calving.

TransCow 18 will:

- provide proper well-balanced nutrition to prepare for the onset of lactation;
- reduce incidences of sub-clinical and clinical metabolic disorders;
- enhance the cow's health and immune system, thus increasing its resistance to infectious diseases;
- include Alltech[®] innovative technologies for optimal animal health and performance.

Formulated with Solutions from



Altech

Masterfeeds Dairy Nutrition
 Altech company

Have a question? Email dairy@masterfeeds.com

TRANSCOW 18 COMPLETE FEED DRY COW RATION



TransCow 18 is a dry cow ration, designed to be limit-fed to non-lactating dairy cattle during the close-up phase, the last three weeks of the dry period. It contains a unique blend of protein ingredients, highly digestible fibre sources, vitamins, minerals, and special ingredients to optimize rumen health and function. Available in medicated and plain options.

FEEDING DIRECTIONS:

Feed TransCow 18 as part of a nutritionally balanced close-up cow ration at a rate of 4 kg per head per day for a minimum of three weeks before calving.

FEATURES & BENEFITS:

18% Protein. High-quality protein ingredients with a balanced amino acid profile to meet the dry cow's requirements.

Fermentable fibres. Quality fibrous ingredients to supply the rumen microorganisms with highly fermentable NDF and energy. Promotes proper rumen adaptation and stabilizes the rumen environment.

Optigen®. Provides sustained availability of ammonia to the rumen environment, resulting in enhanced microbial protein production, fiber digestion and efficient rumen nitrogen capture.

Yea-Sacc ¹⁰²⁶. Live yeast cells that stimulate the growth of ruminal bacteria, improves rumen fermentation, fiber digestion and feed efficiency.

Select GH®. Maintains gut health and integrity, promotes good bacteria and builds defenses, supports the efficient transfer of nutrients from cow to calf.

Alltech® Mineral Total Replacement Technology

(TRT). Achieved through the inclusion of chelated trace minerals in the form of Bioplex® and Selenium yeast in the form of Sel-Plex®, TRT replaces all inorganic sources of trace minerals and Selenium. Alltech Minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health.

Rumen-protected B-vitamins and Choline

Supplement. B-vitamins and choline are known to play a critical role during transition. They help increase dry matter intake, optimize health at calving and improve reproduction.

Rumen-protected Methionine.

Elevating blood methionine level helps promote better liver function, decrease inflammation and improves oxidative stress capacity.

High levels of vitamins A, D and E.

Medicated option. Contains 62 mg/kg of monensin sodium.

This feed contains added Selenium at 1.5 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	
Crude Fat (minimum)	2.5%
Crude Fiber (maximum)	
Calcium (actual)	0.85%
Phosphorus (actual)	5.5%
Sodium (actual)	
Vitamin A (minimum)	
Vitamin D (minimum)	7,500 IU/kg
Vitamin E (minimum)	500 IU/kg

Net Weight 25 kg Product #: PLAIN - 401428 MEDICATED - 40142801





FOR NON-LACTATING Dairy cattle during The close-up phase

TransCow ZEO is a high protein dry cow ration, designed to be limit-fed to non-lactating dairy cattle during the close-up phase, the last two to three weeks of the dry period. It contains a unique blend of protein ingredients, highly digestible fibre sources, vitamins, minerals and special ingredients to optimize rumen health and function.

ENHANCE THE WELL BEING AND PROFITABILITY OF YOUR DAIRY CATTLE.

The transition period is the most important most challenging phase of a dairy cow's lactation cycle as there is a potential for a dramatic increase of infectious diseases and metabolic disorders, negatively affecting the health, production and profitability of dairy cattle.

TransCow ZEO has been developed to enhance the adaptability of dry cows to the physiological changes that occur before, during and after calving.

TransCow ZEO will:

- provide proper well-balanced nutrition to prepare for the onset of lactation;
- reduce incidences of sub-clinical and clinical metabolic disorders;
- enhance the cow's health and immune system, thus increasing its resistance to infectious diseases;
- include Alltech[®] innovative technologies for optimal animal health and performance.

ALLTECH® TRANSITION COW TECHNOLOGIES:

SELECT GH®	v
SEL-PLEX [®] /BIOPLEX [®] (TRT)	~

FEEDING DIRECTIONS:

Feed TransCow ZEO as part of a nutritionally balanced close-up cow ration at a rate of 4 kg per head per day for a minimum of three weeks before calving.

FEATURES & BENEFITS:

X-Zelite®. Binds and inhibits calcium absorption, stimulating the animals calcium mobilizing mechanism, increasing and maintaining blood calcium levels at and after calving.

Added Methionine. Promotes higher dry matter intakes post-calving, can produce more energy-corrected milk, lower systemic inflammatory state, enhanced liver function and a greater antioxidant capability.

Select GH®. Maintains gut health and integrity, promotes good bacteria and builds defenses, supports the efficient transfer of nutrients from cow to calf.

28% Protein. High-quality protein that delivers a minimum of 525 grams of metabolizable protein with a balanced amino acid profile to meet the dry cow's requirements.

Fermentable fibres. Quality fibrous ingredients to supply the rumen microorganisms with highly fermentable NDF and energy. Promotes proper rumen adaptation and stabilizes the rumen environment.

Alltech® Mineral Total Replacement Technology (TRT). Achieved through the inclusion of chelated trace minerals in the form of Bioplex® and Selenium yeast in the form of Sel-Plex®, TRT replaces all inorganic sources of trace minerals and Selenium. Alltech Minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health.

High levels of vitamin E. Helps reduce the incidence of retained placentas and mastitis after calving. It optimizes animal health and performance.

This feed contains added Selenium at 1.75 mg/kg.

Crude Protein (minimum)	
Crude Fat (minimum)	1.7%
Crude Fiber (maximum)	
Calcium (actual)	0.3%
Phosphorus (actual)	0.6%
Sodium (actual)	0.9%
Vitamin A (minimum)	35,000 IU/kg
Vitamin D ₃ (minimum)	.5,800 IU/kg
Vitamin E (minimum)	350 IU/kg







TransCow 32 Dry Cow Supplement is designed to be mixed with on-farm grains and limitfed to non-lactating dairy cattle during the dry period. It contains a unique blend of protein ingredients, vitamins, minerals, and special ingredients to optimize rumen health and function. Available medicated or plain.

ALLTECH® TRANSITION COW TECHNOLOGIES:

YEA-SAAC ^{® 1026}	v
SEL-PLEX [®] /BIOPLEX [®] (TRT)	✓

FEEDING DIRECTIONS:

Feed TransCow 32 Supplement at a rate of 2.0 to 2.5 kg per head per day as part of a nutritionally balanced dry cow ration.

FEATURES & BENEFITS:

32% Protein. High-quality protein sources with a balanced amino acid profile to meet the dry cow's requirements.

Yea-Sacc ¹⁰²⁶. Live yeast cells that stimulate the growth of ruminal bacteria, improves rumen fermentation, fibre digestion and feed efficiency.

Alltech® Mineral Total Replacement Technology (TRT). Achieved through the inclusion of chelated trace minerals in the form of Bioplex® and Selenium yeast in the form of Sel-Plex®, TRT replaces all inorganic sources of trace minerals and Selenium. Alltech Minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health. *High levels of vitamin E. Helps reduce the incidence of retained placentas and mastitis after calving. It optimizes animal health and performance.*

Contains high level of magnesium. Favourable for preventing metabolic problems in the dry period.

Medicated option. Contains 100 mg/kg of monensin sodium.

This feed contains added Selenium at 2.4 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	32.0%
Crude Fat (minimum)	2.9%
Crude Fiber (maximum)	6.0%
Calcium (actual)	2.5%
Phosphorus (actual)	1.0%
Sodium (actual)	0.5%
Vitamin A (minimum)77,0	000 IU/kg
Vitamin D (minimum)13,0	000 IU/kg
Vitamin E (minimum)	800 IU/kg

Net Weight 25 kg Product #: PLAIN – 401436 MEDICATED – 40143601





Formulated to prepare cattle for freshening

Formulated with

Solutions from **Altech**

Masterfeeds Blueprint[®] Dry Cow Dairy Premix is a unique and effective approach to dairy cattle nutrition, designed with cutting-edge nutritional technologies for today's advanced dairy genetics. It is formulated for dry cows to prepare them for freshening and includes organic trace minerals to support absorption, retention, and utilization.

Feeding & Management Notes:

For use in dairy heifers and dry cows.

eprint

Dairy

Feed up to 200 g as recommended by your nutritionist as part of a well-balanced ration.

Provide adequate clean fresh water.

Contact your Masterfeeds Account Manager for specific feeding directions.

Features & Benefits:

Alltech® Mineral Total Replacement Technology

(TRT)[®]. Achieved through the inclusion of chelated trace minerals in the form of Bioplex[®] and Selenium yeast in the form of Sel-Plex[®], TRT replaces all inorganic sources of trace minerals and Selenium. Alltech Minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health.

Contains highly available magnesium. Favourable for preventing metabolic problems in the dry period.

Enhanced levels of vitamins A, D, & E. For growth, reproduction and overall health.

Hiahlv Palatable. Promotes increased intake.

Contains salt. Regulates intake.

The blueprint for performance through nutrition:

- Highly efficient trace mineral fortification
- Promotes reproductive performance
- Supports the body's natural defense system
- Supports healthy antioxidant status

This feed contains added Selenium at 25.0 mg/kg.

Calcium (actual)	9.0%
Phosphorus (actual)	6.0%
Magnesium (actual)	10.0%
Sulfur (actual)	1.8%
Sodium (actual)	3.1%
Potassium (actual)	0.3%
Iodine (actual)	67 mg/kg
Copper (actual)	630 mg/kg
Manganese (actual)	1,320 mg/kg
Zinc (actual)	
Cobalt (actual)	60 mg/kg
Vitamin A (minimum)	750,000 IU/kg
Vitamin D (minimum)	125,000 IU/kg
Vitamin E (minimum)	7,500 IU/kg







FOR DAIRY COWS DURING THE DRY PERIOD

Masterfeeds Countdown Dry Cow Premix is a vitamin and mineral supplement to be fed with local grains and supplemental protein to dairy cows during the entire dry period. It supplies the nutrients required for optimal fetal growth and optimally prepares for calving and subsequent lactation. Available in a plain or medicated options.

WHO USES:

Producers who recognize the importance and value of providing optimal nutrition during the dry period to minimize metabolic problems associated with calving and maximize milk production during the subsequent lactation. Producers who require a mineral and vitamin supplement that is designed to be fed with forage, grain and a supplemental source of protein during the entire dry period, or specifically Phase-One of the dry period.

FEEDING DIRECTIONS:

Mix with grains and soyameal and feed so as to provide premix at 17 grams per 100 kg body weight per day as part of a nutritionally balanced feeding program that ideally contains lower potassium forages such as grass or mixed hay and/or haylage and corn silage, corn grain and a supplemental protein source such as soybean meal.

FEATURES & BENEFITS:

Relatively low level of calcium (7%). Supplies only the amount required for maintenance and fetal skeletal growth. Helps reduce risk of milk fever at calving.

High level of phosphorous. Optimal fetal skeletal development and reproductive function post-calving.

High level of magnesium. Optimal fetal skeletal development, energy metabolism and prevention of Magnesium deficiency post calving.

High levels of trace minerals and vitamins.

Required for normal fetal growth and rejuvenation of mammary tissue. Enhances resistance to disease.

Selenium at 60.0 mg/kg and vitamin E at 12,500 IU/kg. Provides maximum allowable intake of Selenium and 12,500 IU of vitamin E per day. Helps combat metabolic stress and increases resistance to disease such as retained placenta and mastitis.

Natural and artificial flavouring.

Enhances palatability and promotes intake.

This feed contains added Selenium at 60.0 mg/kg.

GUARANTEED ANALYSIS

Calcium (actual)	
Phosphorus (actual)	12.0%
Magnesium (actual)	8.0%
Sulfur (actual)	1.0%
Sodium (actual)	5.2%
Potassium (actual)	0.2%
Iodine (actual)	90 mg/kg
Copper (actual)	1,500 mg/kg
Manganese (actual)	5,400 mg/kg
Zinc (actual)	6,200 mg/kg
Cobalt (actual)	50 mg/kg
Vitamin A (minimum)	900,000 IU/kg
Vitamin D (minimum)	
Vitamin E (minimum)	

Net Weight 25 kg Product #: PLAIN - 408703 MEDICATED - 40870301



Α C ΤΑ ΤΙ Ο Ν



A Canadian Tradition of Animal Nutrition Solutions Une tradition Canadienne de solutions en Nutrition Animale



- ✔ PROMOTE CONSISTENT AND ADEQUATE ENERGY INTAKE
- MINIMIZE THE EXTENT AND DURATION OF POSTPARTUM NEGATIVE ENERGY BALANCE
- ✓ PREVENT DISEASE PROBLEMS ASSOCIATED WITH NEGATIVE ENERGY BALANCE
- ✓ REDUCE THE INCIDENCE OF FATTY LIVER SYNDROME

EARLY

✓ IMPROVE MILK PRODUCTION AND INCREASE HERD PROFITABILITY

BOOST THE PROFITABILITY OF THE EARLY LACTATION PERIOD

The early lactation period is one of the most stressful periods in the life cycle of a dairy cow affecting health and production. The success of the change from the pregnant, non-lactating state to the non-pregnant, lactating state determines profitability of the cow during that lactation.

Cows in early lactation are in an inevitable negative energy balance. The sudden increase of nutrients required for milk production, at a time when dry matter intake (DMI) lags far behind, leave less nutrients to supply the fresh cow's maintenance requirements. In response, cows mobilize stored body fat as an energy source for milk production and maintenance functions.

FreshCow 28 has been developed to maximize DMI helping cows meet their needs and achieve their genetic potential for milk production. It supplies several key nutrients required in this stage to help cows cope with the stress of early lactation.

Have a question? Email dairy@masterfeeds.com

Formulated with Solutions from



FOR LACTATING DAIRY Cattle During the Early Lactation Period

FreshCow 28 Protein Blend is designed to be fed to dairy cows in early lactation to maximize dry matter intake and provide key nutrients required in this stage of lactation. FreshCow 28 provides alternative energy sources, high levels of rumen escape protein, highly fermentable fiber sources, additional vitamin E and special ingredients to optimize rumen health and function. Available in medicated and plain options.

FRESHCOW 28 TECHNOLOGIES:

TECHOLOGIES	FC 28	FC 28 SYN
EMP®	~	 ✓
OPTIGEN® II	~	v
SELECT GH®	~	v
YEA-SACC ^{® 1026}	~	v
PROTECTED CHOLINE	~	v
DIRECTOR®	~	
SYNERGY [®]		 ✓

FEEDING DIRECTIONS:

Feed FreshCow 28 Protein Blend as part of a nutritionally balanced fresh cow ration. It is designed to be fed to fresh cows at a rate of 2 kg per head per day for a minimum of three weeks post calving.

FEATURES & BENEFITS:

Dietary Escape Microbial Protein (EMP).

A unique, high-quality protein source that delivers a complete array of essential amino acids to the dry cow.

Optigen®. Provides sustained availability of ammonia to the rumen environment, resulting in enhanced microbial protein production, fiber digestion and efficient rumen nitrogen capture.

Select GH®. Maintains gut health and integrity, promotes good bacteria and builds defenses, supports the efficient transfer of nutrients from cow to calf.

Yea-Sacc^{® 1026}. Live yeast cells that stimulate the growth of ruminal bacteria, improves rumen fermentation, fiber digestion and feed efficiency.

Rumen-protected Choline. Improves liver function, reduces fatty liver, ketosis and energy related disorders.

Director®. A proprietary alternative energy source that increases milk production, improves dry matter intake and lowers non-esterified fatty acids (NEFA).

Synergy®. A food-grade glycerol supplement that improves liver function, lowers levers of BHBA and NEFA improving dry matter intake and milk production.

Modified soybean meal. An excellent source of rumen escape protein providing cows with essential amino acids necessary for optimal milk production.

Fermentable fibre. Promotes proper rumen adaptation and stabilizes the rumen environment.

Supplemental vitamin E. Helps optimize animal health and performance.

Medicated option. Contains 100 mg/kg of monensin sodium.

ADVANTAGES:

- Promotes consistent and adequate energy intake.
- Minimizes the extent and duration of postpartum negative energy balance.
- Helps prevent disease problems associated with negative energy balance.
- Minimizes the mobilization of NEFA from adipose tissue triglycerides, and thus reduces the incidence of Fatty Liver Syndrome.
- Helps to improve milk production, increasing herd profitability.

GUARANTEED ANALYSIS

Crude Protein (minimum)	28.0%
Crude Fat (minimum)	2.5%
Crude Fiber (maximum)	1.0%
Calcium (actual)	1.2%
Phosphorus (actual)	0.6%

Net Weight 25 kg Product #: DIRECTOR[®] PLAIN – 401408 | DIRECTOR[®] MEDICATED – 40140801 Product #: SYNERGY[®] PLAIN – 401432 | SYNERGY[®] MEDICATED – 40143201



TOPLINE 38SUPPLEMENTFOR EARLY
LACTATION & HIGH
PRODUCING COWS

Maximum production, reproduction and profits.

Masterfeeds TopLine 38 is a dairy topdress that supports peak milk production, improves body condition and enhances reproductive performance. It also boasts the following:

- > Enhances dry matter intake very palatable for high cow acceptance with minimal refusal ensuring optimal nutrient absorption.
- > Excellent amino acid profile with high quality protein ingredients and supplemental rumen-protected amino acids.
- > Well-balanced RUP and RDP protein fractions to enhance ruminal microbial growth and ensure optimal flow of metabolizable protein post rumen.

Formulated with Solutions from

(Masterfeeds Dairy Nutrition

an Altech[®] company

Have a question? Email dairy@masterfeeds.com

TOPLINE 38**SUPPLEMENT**FOR EARLY
LACTATION & HIGH
PRODUCING COWS

TopLine 38 is a highly palatable, pelleted dairy topdress. It has been specifically designed to provide supplemental energy and protein as well as key nutrients for early lactation and high producing cows from calving up to 100+ days in milk. It is formulated with high quality protein ingredients and supplies optimum levels of amino acids especially Lysine and Methionine.

WHO USES:

Producers with either component fed herds or high and low production groups where the addition of extra nutrients can be supplied to specific cows during times of greater nutrient requirements.

FEEDING DIRECTIONS:

Designed to be feed for the first 100 days of lactation at a rate of 2 kg per head per day or as recommended by your Masterfeeds Account Manager.

FEATURES & BENEFITS:

Increased milk production. In recent field studies, an increased milk yield of 1 to 2 kg was observed.

Modified soybean meal. An excellent source of rumen escape protein providing cows with essential amino acids necessary for optimal milk production.

Rumen-protected Lysine and Methionine.

Provides the cow with the correct amounts of Lysine and Methionine to attain more precisely the daily requirements of the high producing dairy cow.

Optigen®. Provides sustained availability of ammonia to the rumen environment, resulting in enhanced microbial protein production, fiber digestion and efficient rumen nitrogen capture.

Complementary levels of vitamins, chelated trace minerals (TRT) and macro minerals.

Chelated trace minerals are readily absorbed, stored and utilized by the cow helping her meet nutrition requirements and achieve optimal health.

Highly palatable feed with excellent pellet quality. High cow acceptance with minimal refusals; ensures extra nutrients get to where they are required.

Crude Protein (minimum)	
Crude Fat (minimum)	3.5%
Crude Fiber (maximum)	6.5%
Calcium (actual)	1.4%
Phosphorus (actual)	0.7%
Vitamin A (minimum)	10,000 IU/kg
Vitamin D (minimum)	1,650 IU/kg
Vitamin E (minimum)	100 IU/kg



LACTATING DAIRY PREMIXES

💷 Masterfeed

Alltech

S.S. 600//A

AVAILABLE THROUGH YOUR

OCAL MASTERFEEDS DEALER

Vitamins and minerals for lactating dairy cattle.

Masterfeeds Lactating Dairy Premixes are designed to fulfill all vitamin and mineral requirements of the lactating dairy cow.* With formulas for both medium to high corn silage-based rations as well as low/limited to no corn silage-based diets, these newly reformulated premixes have been fine-tuned to account for proper calcium and phosphorus supplementation. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower environmental impact.

LACTATING DAIRY PREMIXES								
Product Name/Use	Feeding Rate	Salt	Inorganic Product Codes		Organic (TRT) Product Codes			
			PLAIN	RUM	PLAIN	RUM		
High to Medium Corn Silage				,	•	•		
Lactating CS Dairy Premix – No Salt	0.3 KG/HD/DAY	X	403120	403120 01	403121	403121 01		
Lactating CS Dairy Premix – Salt	0.4 KG/HD/DAY	✓	403130	403130 01	403131	403131 01		
Low to No Corn Silage						^		
Lactating LCS Dairy Premix – No Salt	0.2 KG/HD/DAY	X	403123	403123 01	403124	403124 01		
Lactating LCS Dairy Premix – Salt	0.3 KG/HD/DAY	\checkmark	403133	403133 01	403134	403134 01		

Features & Benefits:

Proper Calcium and Phosphorus supplementation: Levels are designed to suit either medium to high or low to no corn silage fed diets.

Formulas both with and without salt available: Salt – improves palatability and helps regulate intake. / No Salt – for producers that feed salt separately.

Inorganic formula: With trace minerals essential for a wide variety of physiological processes, regulating growth, milk production, reproduction and health.

Organic formula: Contains Alltech's Total Replacement Technology[®] (TRT) – all trace minerals are from organic sources in the form of Bioplex[®] and Sel-Plex[®].

Organic trace minerals are better absorbed, stored, and utilized by the animal helping meet its nutritional requirements and achieve optimal health and performance. Studies have shown that chelated trace minerals can be fed at lower levels while still improving animal performance.

Lactating Dairy Premixes with 100% organic trace minerals.

Masterfeeds Lactating Dairy Premixes are formulated with Total Replacement Technology[®] (TRT) – the innovation of chelated trace minerals in the form of Bioplex[®] and Sel-Plex[®]. This means that the minerals in these products will be better absorbed, stored and utilized by cattle.

The benefits of Total Replacement Technology.[®]

Improved Absorption and Retention

Organic minerals, also known as chelated minerals, are protected by amino acids and peptides, replicating the form found in plants. This level of protection gets them safely through the volatile GI tract and improves absorption and retention in the body allowing less to be fed to meet the nutritional requirements of cattle.

Stability

Organic minerals are highly stable, both within the animal, and when used in formulations. In contrast, inorganic minerals interact with other ingredients including vitamins, other trace minerals, and antioxidants, reducing their respective activity. Feeding organic minerals, ensures cattle are receiving the most optimal nutrition, formulated specifically for requirements, and with improved shelf life.

Environmental Impact

Masterfeeds

Inorganic minerals are often fed in excess because they are less available to the animal. Excess minerals not absorbed by the animal are excreted and can accumulate in the soil or leach into waterways harming plants and aquatic organisms.

The increased absorption and retention of chelated/ organic minerals allows for better management of the animal's mineral requirements while reducing the impact on the environment.

Total Replacement Technology®
100% ORGANIC TRACE MINERALS

Formulated with Solutions from

A better source – less mineral, really is more mineral working for your cattle. **Bioplex**[®] | **Sel-Plex**[®]

Trace minerals are essential for life. Getting them into your animals is one thing, absorbing them efficiently for energy/fuel for optimal health and performance benefits, is another. There are two kinds of trace minerals – inorganic and organic. Essentially, the difference comes down to the rock form (inorganic), which has limited "bioavailability", compared to the natural plant-like form (organic), which has very high bioavailability – or the degree to which a nutrient in a feed is absorbed and metabolized by the animal – the better the bioavailability, the better the fuel that gets used by the animal.

Masterfeeds TRT Lactating Dairy Premixes are formulated with Total Replacement Technology[®] (TRT) – 100% organic trace minerals that promote better absorption, retention and utilization in the digestive process. Modern management of mineral nutrition can take place at significantly lower inclusion levels which also corresponds with global environmental expectations of reduced mineral excretion.





Masterfeeds Lactating CS Dairy Premix – Salt caters to all mineral and vitamin requirements of the lactating dairy cow, in alignment with NASEM 2021 (nutrient requirements of dairy cattle). This newly reformulated premix is now more attuned to proper calcium and phosphorus supplementation to suit a medium to high corn silage-based ration. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower the impact on the environment.

DIRECTIONS FOR USE:

Mix with on-farm total mixed rations to provide 0.4 kg per head per day.

FEATURES & BENEFITS:

Calcium and Phosphorus.

Levels are designed to suit medium to high corn silage fed diets.

Trace minerals.

Essential for a wide variety of physiological processes, regulating growth, milk production, reproduction and health.

With salt.

Improves palatability and helps regulate intake.

These feeds contain added Selenium at 18.8 mg/kg.

Calcium (actual) Phosphorus (actual)	4.5%
Magnesium (actual)	
Sodium (actual)	
Iodine (actual)	36.9 mg/kg
Copper (actual)	705 mg/kg
Manganese (actual)	2,547 mg/kg
Zinc (actual)	3,274 mg/kg
Cobalt (actual)	30 mg/kg
Vitamin A (minimum)	450,000 IU/kg
Vitamin D ₃ (minimum)	82,500 IU/kg
Vitamin E (minimum)	1,875 IU/kg





Masterfeeds Lactating CS Dairy Premix – No Salt caters to all mineral and vitamin requirements of the lactating dairy cow, in alignment with NASEM 2021 (nutrient requirements of dairy cattle). This newly reformulated premix is now more attuned to proper calcium and phosphorus supplementation to suit a medium to high corn silage-based ration. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower the impact on the environment.

DIRECTIONS FOR USE:

Mix with on-farm total mixed rations to provide 0.3 kg per head per day.

FEATURES & BENEFITS:

Calcium and Phosphorus.

Levels are designed to suit medium to high corn silage fed diets.

Trace minerals.

Essential for a wide variety of physiological processes, regulating growth, milk production, reproduction and health.

Does not contain salt.

For producers that feed salt separate from the mineral.

These feeds contain added Selenium at 25.0 mg/kg.

Calcium (actual) Phosphorus (actual)	
Magnesium (actual)	6.0%
Sodium (actual)	0.1%
Iodine (actual)	49 mg/kg
Copper (actual)	919 mg/kg
Manganese (actual)	3,380 mg/kg
Zinc (actual)	4,357 mg/kg
Cobalt (actual)	40 mg/kg
Vitamin A (minimum)	600,000 IU/kg
Vitamin D ₃ (minimum)	110,000 IU/kg
Vitamin E (minimum)	2,500 IU/kg





Masterfeeds Lactating LCS Dairy Premix – Salt caters to all mineral and vitamin requirements of the lactating dairy cow, in alignment with NASEM 2021 (nutrient requirements of dairy cattle). This newly reformulated premix is now more attuned to proper calcium and phosphorus supplementation to suit a limited to no corn silage-based ration. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower the impact on the environment.

DIRECTIONS FOR USE:

Mix with on-farm total mixed rations to provide 0.3 kg per head per day.

FEATURES & BENEFITS:

Calcium and Phosphorus. Levels are designed to suit high haylage-based diets, or limited to no corn silage diets.

Trace minerals. Essential for a wide variety of physiological processes, regulating growth, milk production, reproduction and health.

With salt.

Improves palatability and helps regulate intake.

These feeds contain added Selenium at 25.0 mg/kg.

15.0% 5.0%
5.0%
11.8%
49.2 mg/kg
939 mg/kg
3,320 mg/kg
40 mg/kg
4,359 mg/kg
600,000 IU/kg
110,000 IU/kg
2,500 IU/kg



LACTATING LCS DAIRY PREMIX – NO SALT

Masterfeeds Lactating LCS Dairy Premix – No Salt caters to all mineral and vitamin requirements of the lactating dairy cow, in alignment with NASEM 2021 (nutrient requirements of dairy cattle). This newly reformulated premix is now more attuned to proper calcium and phosphorus supplementation to suit a limited to no corn silage-based ration. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower the impact on the environment.

DIRECTIONS FOR USE:

Mix with on-farm total mixed rations to provide 0.2 kg per head per day.

FEATURES & BENEFITS:

Calcium and Phosphorus. Levels are designed to suit high haylage-based diets, or limited to no corn silage diets.

Trace minerals. Essential for a wide variety of physiological processes, regulating growth, milk production, reproduction and health.

Does not contain salt.

For producers that feed salt separate from the mineral.

These feeds contain added Selenium at 37.5 mg/kg.

Masterfeeds la

an **Altech**[®] company

GUARANTEED ANALYSIS

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Calcium (actual)	
Phosphorus (actual)	
Magnesium (actual)	
Sodium (actual)	0.1%
Iodine (actual)	74 mg/kg
Copper (actual)	
Manganese (actual)	
Zinc (actual)	6,560 mg/kg
Cobalt (actual)	
Vitamin A (minimum)	900,000 IU/kg
Vitamin D ₃ (minimum)	
Vitamin E (minimum)	





Masterfeeds TRT Lactating CS Dairy Premix – Salt caters to all mineral and vitamin requirements of the lactating dairy cow, in alignment with NASEM 2021 (nutrient requirements of dairy cattle). This newly reformulated TRT premix is now more attuned to proper calcium and phosphorus supplementation to suit a medium to high corn silage-based ration. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower the impact on the environment.

DIRECTIONS FOR USE:

Mix with on-farm total mixed rations to provide 0.4 kg per head per day.

FEATURES & BENEFITS:

Calcium and Phosphorus.

Levels are designed to suit medium to high corn silage fed diets.

Total Replacement Technology® (TRT).

All trace minerals are from organic sources in the form of Bioplex[®] and Sel-Plex[®]. Organic trace minerals are better absorbed, retained and utilized by the animal helping meet its nutritional requirements and achieve optimal health and performance.

With salt.

Improves palatability and helps regulate intake.

These feeds contain added Selenium at 17.25 mg/kg.

Calcium (actual) Phosphorus (actual)	
Magnesium (actual)	4.5%
Sodium (actual)	8.9%
Iodine (actual)	37.0 mg/kg
Copper (actual)	596 mg/kg
Manganese (actual)	1,237 mg/kg
Zinc (actual)	2,335 mg/kg
Cobalt (actual)	30 mg/kg
Vitamin A (minimum)	450,000 IU/kg
Vitamin D ₃ (minimum)	82,500 IU/kg
Vitamin E (minimum)	1,875 IU/kg





Masterfeeds TRT Lactating CS Dairy Premix – No Salt caters to all mineral and vitamin requirements of the lactating dairy cow, in alignment with NASEM 2021 (nutrient requirements of dairy cattle). This newly reformulated TRT premix is now more attuned to proper calcium and phosphorus supplementation to suit a medium to high corn silage-based ration. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower the impact on the environment.

DIRECTIONS FOR USE:

Mix with on-farm total mixed rations to provide 0.3 kg per head per day.

FEATURES & BENEFITS:

Calcium and Phosphorus.

Levels are designed to suit medium to high corn silage fed diets.

Total Replacement Technology® (TRT).

All trace minerals are from organic sources in the form of Bioplex[®] and Sel-Plex[®]. Organic trace minerals are better absorbed, retained and utilized by the animal helping meet its nutritional requirements and achieve optimal health and performance

Does not contain salt.

For producers that feed salt separate from the mineral.

These feeds contain added Selenium at 23.0 mg/kg.

6.0%
6.0%
0.1%
49 mg/kg
777 mg/kg
1,638 mg/kg
3,108 mg/kg
40 mg/kg
600,000 IU/kg
110,000 IU/kg
2 <i>,</i> 500 IU/kg





Masterfeeds Lactating TRT LCS Dairy Premix – Salt caters to all mineral and vitamin requirements of the lactating dairy cow, in alignment with NASEM 2021 (nutrient requirements of dairy cattle). This newly reformulated TRT premix is now more attuned to proper calcium and phosphorus supplementation to suit a limited to no corn silage-based ration. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower the impact on the environment.

DIRECTIONS FOR USE:

Mix with on-farm total mixed rations to provide 0.3 kg per head per day.

FEATURES & BENEFITS:

Calcium and Phosphorus. Levels are designed to suit high haylage-based diets, or limited to no corn silage diets.

Total Replacement Technology® (TRT).

All trace minerals are from organic sources in the form of Bioplex[®] and Sel-Plex[®]. Organic trace minerals are better absorbed, retained and utilized by the animal helping meet its nutritional requirements and achieve optimal health and performance

With salt.

Improves palatability and helps regulate intake.

Available medicated with Rumensin®. Aids in the prevention of coccidiosis.

These feeds contain added Selenium at 23.0 mg/kg.

GUARANTEED ANALYSIS

Calcium (actual) Phosphorus (actual)	
Magnesium (actual)	
Sodium (actual)	
Iodine (actual)	50 mg/kg
Copper (actual)	770 mg/kg
Manganese (actual)	1,380 mg/kg
Cobalt (actual)	40 mg/kg
Zinc (actual)	3,070 mg/kg
Vitamin A (minimum)	600,000 IU/kg
Vitamin D ₃ (minimum)	110,000 IU/kg
Vitamin E (minimum)	2,500 IU/kg

Net Weight 25 kg Product #: PLAIN - 403134 MEDICATED - 40313401





Masterfeeds TRT Lactating LCS Dairy Premix – No Salt caters to all mineral and vitamin requirements of the lactating dairy cow, in alignment with NASEM 2021 (nutrient requirements of dairy cattle). This newly reformulated TRT premix is now more attuned to proper calcium and phosphorus supplementation to suit a limited to no corn silage-based ration. Feeding the correct level of phosphorus prevents overfeeding and will both reduce cost on-farm and lower the impact on the environment.

DIRECTIONS FOR USE:

Mix with on-farm total mixed rations to provide 0.2 kg per head per day.

FEATURES & BENEFITS:

Calcium and Phosphorus. Levels are designed to suit high haylage-based diets, or limited to no corn silage diets.

Total Replacement Technology® (TRT).

All trace minerals are from organic sources in the form of Bioplex[®] and Sel-Plex[®]. Organic trace minerals are better absorbed, retained and utilized by the animal helping meet its nutritional requirements and achieve optimal health and performance

Does not contain salt.

For producers that feed salt separate from the mineral.

Available medicated with Rumensin®.

Aids in the prevention of coccidiosis.

These feeds contain added Selenium at 34.5 mg/kg.

GUARANTEED ANALYSIS

Calcium (actual) Phosphorus (actual)	
Magnesium (actual)	7.0%
Sodium (actual)	0.1%
Iodine (actual)	75 mg/kg
Copper (actual)	1,155 mg/kg
Manganese (actual)	2,070 mg/kg
Zinc (actual)	4,605 mg/kg
Cobalt (actual)	60 mg/kg
Vitamin A (minimum)	900,000 IU/kg
Vitamin D ₃ (minimum)	165,000 IU/kg
Vitamin E (minimum)	3,750 IU/kg

Net Weight 25 kg Product #: PLAIN - 403124 MEDICATED - 40312401



TOTAL BALANCE #2 DAIRY PREMIX 15:15:6

Masterfeeds Total Balance #2 Dairy Premix 15:15:6 is a complete vitamin and mineral supplement that contains balanced macro minerals, trace minerals and vitamins to support high levels of milk production when forages with slightly lower levels of calcium are fed. Total Balance #2 was specifically designed with the component feeder in mind and is especially suited for use in topdress situations.

WHO USES:

Dairymen who require a complete mineral and vitamin premix to balance a feeding program or create a dairy ration using local grain and a separate source of supplemental protein and salt. Producers who feed mixed forage programs consisting of hay and/or haylage and corn silage.

FEEDING RECOMMENDATIONS:

Feed this premix as part of a nutritionally balanced feeding program that contains forages which provide lower levels of calcium, typically at 265 grams/head/day when fed as the sole source of supplemental minerals and vitamins.

Mix 30 kg Total Balance #2 with 270 kg soybean meal and 700 kg corn and/or mixed grain to make an 18% dairy ration. Feed the resulting ration at the rate of 1 kg for every 2 to 4 kg of milk produced. Provide free-choice salt and fresh, clean water at all times.

FEATURES & BENEFITS:

15% Calcium. Supplies a moderate level of calcium to support milk production when forages with a slightly lower level of calcium are fed.

15% Phosphorous. Essential for milk production, energy metabolism and reproductive performance; balanced to level of calcium required.

6% Magnesium. Essential for enzyme function, energy metabolism and nerve function; high level prevents deficiency associated with high Potassium forages.

Flavouring. Enhances palatability and promotes intake.

Net Weight 25 kg Product #: PLAIN – 406728 MEDICATED – 40678201

High levels of trace minerals and vitamins.

Essential for normal rumen function and metabolism; supports higher levels of milk production, improves reproductive function and enhances resistance to disease; linked to level of Selenium.

Selenium at 24 mg/kg and Vitamin E at 2,000 IU/kg. Provides maximum allowable intake of Selenium and 500 IU of Vitamin E per day when fed as directed; high levels for improved immune function enhanced disease resistance, prevention of mastitis and improved fertility.

Does not contain salt. For producers that feed salt separate from the mineral.

Available medicated with Rumensin®. Aids in the prevention of coccidiosis.

This feed contains added Selenium at 24.0 mg/kg.

Calcium (actual) Phosphorus (actual)	15.0%
Magnesium (actual)	6.0%
Sulfur (actual)	2.5%
Potassium (actual)	
Iodine (actual)	50 mg/kg
Copper (actual)	1,250 mg/kg
Manganese (actual)	4,000 mg/kg
Zinc (actual)	6,000 mg/kg
Cobalt (actual)	30 mg/kg
Fluorine (maximum)	1,500 mg/kg
Vitamin A (minimum)	600,000 IU/kg
Vitamin D (minimum)	130,000 IU/kg
Vitamin E (minimum)	2,000 IU/kg



LACTATING DAIRY PREMIX





RCB^C-MAX 16% OR 18% FEEDING SYSTEM (ROBOT PELLETS)

A pellet that will keep them coming back.

Masterfeeds Robo-Max Robot Pellets are designed to enhance the drivability of cows to robot milkers. With highly palatable ingredients, a unique flavor profile and excellent pellet quality characteristics, using Robo-Max will mean shorter fetch lists with more opportunities to harvest milk.

FOR DAIRY COWS

IG AN AUTOMATED

Masterfeeds – the experts in robot milking:

- Experience: we've been feeding robots in Canada since 2000.
- Selection: There are many options available in the Robo-Max line up including 16% and 18% protein pellets. High starch options also available.
- Quality: Meet your production goals with a dedicated staff, quality ingredients, and HAACP approved manufacturing facilities.

 Masterfeeds Dairy Nutrition an Altech[®] company

Have a question? Email dairy@masterfeeds.com



Robo-Max[™] Robot Pellets are highly palatable feeds, intended to be fed to dairy cows through an automated feeding system. Fed in conjunction with a balanced partial mixed ration, Robo-Max provides supplemental energy and protein to encourage maximum visits to automated milking/feeding stations.

FOR DAIRY COWS

FEEDING SYSTEM

USING AN AUTOMATED

DIRECTIONS FOR USE:

Feed Robo-Max[™] Robot Pellets at a rate sufficient to deliver an average of 4.0 kg per visit.

Feeding speed should be adjusted in conjunction with average milking speed, but should fall into the range of 300 to 400 grams per minute.

Successful feeding in robotic systems is entirely dependent on having a properly balanced bunk recipe.

Follow an on-farm feeding program provided by your Masterfeeds Account Manager.

FEATURES & BENEFITS:

Hard high-quailty pellet.

Designed for optimal flow and reduced fines in automated feeding systems.

High quality, palatable ingredients with a unique blend of flavors. Specifically formulated for optimum intake, while avoiding issues associated with acidosis. Keeps them happy for the entire milking. This means fewer kicked-off milkers!

All natural protein with a specific balance of by-pass protein and amino acids. Ensures palatability and performance.

High quality fermentable fibre. Provides more digestible fibre as fermentable sources of energy. This keeps her milking with good feet and components, while helping her to breed back in shorter days.

Complementary levels of vitamins and macro minerals. Utilized by the cow helping her meet nutrition requirements and achieve optimal health.

New high starch (HS) formulas available. For increased energy density in the diet potentially driving higher milk production.

GUARANTEED ANALYSIS

Crude Protein (minimum)	16.0 or 18.0%
Crude Fat (minimum)	3.5%
Crude Fiber (maximum)	
Calcium (actual)	1.2%
Sodium (actual)	0.2%
Vitamin A (minimum)	8,000 IU/kg
Vitamin D (minimum)	1,300 IU/kg
Vitamin E (minimum)	10 IU/kg

Masterfeeds[®] Dairy Nutrition

an **Altech***company

Net Weight 25 kg / Bulk Product #: 16% - 405432 | 16% HS - 405436 18% - 405434 | 18% HS - 405438





FORMULA

CLOSE-UPTM | FOR DRY COWS (THREE WEEKS PRIOR TO CALVING)

Crystalyx[®] Close-Up[™] Formula is a self-fed supplement containing chelated/organic trace minerals and anionic salts. It is designed to be fed in addition to a balanced dry cow ration three weeks before calving. Crystalyx[®] Close-Up[™] Formula is well suited for use in herds or conditions where milk fever and hypocalcemia are likely to occur.

FEATURES & BENEFITS:

BioPlex[®] organic trace minerals.

Bioplex[®] chelated/organic trace minerals are better able to meet the nutrient requirements of high producing cows.

Naturally self-limiting.

Low-moisture block delivery cannot be bitten or chewed.

Anionic salts.

Assist with improved calcium status.

Trace minerals and vitamins. Nutrition available 24/7.

Can help improve dry matter intake.

During the dry period can improve energy status at calving and help prevent metabolic issues.

ADVANTAGES OVER DRY BAGGED **MINERALS:**

- Does not need salt or other ingredients to attract cattle to supplement or help in regulating intake.
- Wind proof, water proof, waste proof.
- Research results demonstrate significantly more cattle visited Crystalyx[®] than dry loose mineral feeders.

This product is currently only available in Ontario, Manitoba and parts of Saskatchewan. Contact your Masterfeeds Account Manager for availability.

GUARANTEED ANALYSIS

Crude Protein (minimum)	
Crude Fat (minimum)	
Crude Fiber (maximum)	2.0%
Calcium (actual)	6.0%
Magnesium (actual)	2.5%
Sulfur (actual)	6.0%
Sodium (actual)	1.0%
Copper (actual)	625 mg/kg
Manganese (actual)	2,500 mg/kg
Zinc (actual)	2,500 mg/kg
Cobalt (actual)	
Fluorine (maximum)	
Vitamin A (minimum)	440,000 IU/kg
Vitamin D₃ (minimum)	
Vitamin E (minimum)	

*Including not more than 10.0% equivalent Crude Protein from non-protein nitrogen.



Net Weight 100 kg | 27.3 kg Product #: 810206 | 810253



GARAND SUDPLEMENTS

DRY COWTM FOR DRY COWS

Crystalyx[®] Dry Cow[™] Formula is designed for self-feeding at the start of the dry period, along with long-stem, low calcium forage. Continue feeding until freshening, or replace with Crystalyx[®] Close-Up[™] Formula during the final three weeks of the dry period.

FEATURES & BENEFITS:

Extra vitamin and trace minerals. Fortification helps develop strong, healthy, newborn calves and quality colostrum. Mineral and vitamin nutrition available 24/7.

Naturally self-limiting. Low-moisture block delivery cannot be bitten or chewed.

Prevent milk fever and ketosis. Low calcium and moderate phosphorus to improve calcium status, *i.e.* able to mobilize calcium preventing milk fever. Ideal for dry dairy cows.

Calving/reproduction. Can help improve dry matter intake in the dry period which can improve energy status at calving and help prevent metabolic issue.

Contains Bioplex®. BioPlex® chelated/organic trace minerals are better able to meet the nutrient requirements of high producing cows. BioPlex® organic trace minerals offer higher bioavailability than inorganic minerals, are easily absorbed, and support mineral retention. Improved trace mineral status supports a number of functions in the body including metabolism, immune function, and reproductive performance.

ADVANTAGES OVER DRY BAGGED MINERALS:

- Does not need salt or other ingredients to attract cattle to supplement or help in regulating intake.
- Wind proof, water proof, waste proof.
- Research results demonstrate significantly more cattle visited Crystalyx[®] than dry loose mineral feeders.

This product is currently only available in Ontario, Manitoba and parts of Saskatchewan. Contact your Masterfeeds Account Manager for availability.

GUARANTEED ANALYSIS

Crude Protein (minimum)	
Crude Fat (minimum)	3.0%
Crude Fiber (maximum)	2.0%
Calcium (minimum)	1.7%
Phosphorous (minimum)	1.0%
Magnesium (minimum)	2.5%
Copper (minimum)	
Iodine (minimum)	
Manganese (minimum)	2,500 mg/kg
Zinc (minimum)	
Cobalt (minimum)	40 mg/kg
Fluorine (maximum)	
Vitamin A (minimum)	
Vitamin D ₃ (minimum)	
Vitamin E (minimum)	3,080 IU/kg

* Including not more than 10.0% equivalent Crude Protein from non-protein nitrogen.



Net Weight 100 kg | 27.3 kg Product #: 810217 | 810254





FOR STRESSED BEEF CATTLE During Weaning, Shipping, Grouping & Breeding Pens

Crystalyx[®] brand Brigade[®] Stress Fighting Formula is a high energy, free-choice supplement fortified with electrolytes, high levels of vitamins and minerals and Bioplex[®] organic trace minerals. This helps overcome nutritional stress associated with weaning, shipping, grouping and the breeding period.

FEEDING DIRECTIONS:

Crystalyx[®] brand Brigade[®] Stress Fighting Formula is designed for free-choice feeding to calves, growing cattle and mature breeding cattle fed moderate to high protein forages. Brigade Stress Fighting Formula is fortified with electrolytes and with levels of vitamins and trace minerals to help overcome nutritional stress associated with shipping, weaning, rapid growth rates, late gestation and early lactation. Free-choice consumption will depend on the size of the animals fed, as well as, quality, source and availability of other feeds.

Pen-Raised Calves: Place containers near water source or feed bunks, preferably elevated from ground level to minimize contamination with dirt and other foreign materials that may discourage consumption. Use one container per-head for individually-fed calves, and one container for every three to 10 head when calves are fed in groups. Calves typically consume between 30 and 120 grams per-head, per-day.

Growing Cattle & Mature Breeding Cattle: Place containers in areas that achieve desired supplement intake. Once acceptable intake levels have been achieved, the containers may be moved to under-utilized pasture areas to improve grazing distribution and forage utilization. Feed at the rate of one container for every 20 to 30 head, with a minimum of two containers in each lot or pasture to ensure proper accessibility. Cattle typically consume between 100 and 340 grams per-head, per-day.

All consumption figures stated here are approximate. Provide free access to clean, fresh water at all times.

FEATURES & BENEFITS:

Improves breeding conditions. Expression of heat, standing estrus; Fertility; Conception rates; Contains Bioplex[®] organic copper, zinc and manganese to improve trace mineral availability and utilization; Stimulates dry matter intake leading to better condition at breeding time.

Reduces stress. Crystalyx[®] brand Brigade[®] Stress Fighting Formula can reduce stress caused by weaning, environment, grouping and shipping.

Stimulates appetite. B-vitamin complex helps stimulate intake during periods when different stressors challenge intake; High vitamin and trace mineral fortification enhances immune response for fighting disease; Palatability ensures consumption of critical nutrients.

CONTAINER OPTIONS:

Steel Barrel: Steel barrels are durable and returnable, but do have the added costs to return the containers. Steel barrels are environmentally responsible as they are removed from pastures once Crystalyx[®] brand Brigade is consumed.

BioBarrel®: The BioBarrel® naturally degrades and disappears. The need for container collection and return is eliminated.

This feed contains added Selenium at 6.0 mg/kg.

GUARANTEED ANALYSIS

Crude Protein (minimum)	
Crude Fat (minimum)	4.0%
Crude Fibre (maximum)	
Calcium (actual)	2.3%
Phosphorus (actual)	
Magnesium (minimum)	
Salt (minimum)	1.8%
Salt (maximum)	2.0%
Potassium (minimum)	2.2%
Iodine (minimum)	25 mg/kg
Copper (minimum)	500 mg/kg
Manganese (minimum)	2,000 mg/kg
Cobalt (minimum)	5 mg/kg
Zinc (minimum)	1,500 mg/kg
Vitamin A (minimum)	176,000 IU/kg
Vitamin D ₃ (minimum)	35,200 IU/kg
Vitamin E (minimum)	1,760 IU/kg

Net Weight 100 kg | 27.3 kg Product #: 810204 | 810231



LOW MOISTURE BLOCK

