

**COMPLETE
CALF
CARE**

TOP 10 TIPS

FOR

COMPLETE CALF CARE

FROM

KeyAg
DISTRIBUTORS



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COMPLETE CALF CARE PROGRAM:



The **Complete Calf Care** program from **KeyAg** is an integrated approach for optimum health and vigor of the calf from birth through the growth and development periods.

Research has shown that the health of the calf during the first two weeks of life, at weaning and growing periods can have a significant impact on its development and future productivity in the herd.

The **Complete Calf Care** program offers effective products and nutritional services from experienced calf specialists that will help calves reach their genetic potential with minimal issues.

#1 Calving

SANITATION:

It is especially important throughout calving for proper sanitation to reduce the pathogen load that could infect the calf at birth, including:

- Feeding equipment
- Calving area
- Bedding area/locations
- Calving equipment



#2 Birth



Importance of Colostrum

Calves who do not receive adequate amounts (up to two gallons) of quality colostrum at birth have increased morbidity and mortality rates before weaning. In addition, sick calves will have reduced weaning weights and other additional health and performance issues in the feedlot.

Passive Immunity

The most important time in a calf's life is the first two weeks after birth. Born without a functional immune system, the calf depends on the mother's colostrum to provide passive immunity protection from the harsh pathogenic challenges at birth.

- Passive immunity is provided when the calf absorbs the protective immunoglobulins in the colostrum.
- If the calf consumes sufficient amounts of colostrum before gut closure which occurs approximately 24 hours after birth, the passive immunity will last up to five days depending on the immunoglobulin concentration and amount of colostrum fed.
- Calves should consume colostrum as soon as possible after birth, ideally within the first 3 hours and 12% to 15% of body weight by 12 hours of age. The ability to absorb immunoglobulins falls drastically after 12 hours and is totally absent by 24 hours.



Colostrum Replacement and Supplementation



Excell Pro™ ImmuGuard 100 Colostrum Replacer from KeyAg Distributors
With 100 grams of IgG per dose, use as a pre gut closure treatment to help protect the calf from disease as it develops a healthy immune system. Can be used as a supplement to bring poor quality colostrum to proper IgG levels. Especially important if colostrum is not available or use as an additive to poor quality colostrum.



Excell Pro™ ImmuGuard 50 Colostrum Supplement from KeyAg Distributors
With 50 grams of IgG per dose, it aids in the treatment of failure of passive transfer within the first 24 hours of life and aids in reduction of disease and prevention of death. Can be used to supplement poor quality colostrum.

Excell Pro™ First Feeding/Cold Calf Starter

- A source of energy and absorbable IgY antibodies for calves.
- A specially selected blend of dried milk proteins, dried IgY egg proteins, vitamins and minerals.
- First Feeding helps provide passive transfer of critical immune factors.

#2 Birth (continued)

NAVEL DIPPING:

Proper navel dipping closes navel opening by drying, to prevent bacteria from entering and causing "Navel Ill," which occurs when the navel becomes infected allowing bacteria to enter and infect the bloodstream.

DIP UP TO THREE TIMES FOR QUICKEST AND MOST EFFECTIVE DRYING!

Navel-Guard from KeyAg Distributors is an iodine-free, ready-to-use navel dip for newborn animals. Our product uses a combination of Ike-Joe (proprietary formula) and green acid technology, along with isopropyl alcohol to aid with drying the navel. Our peer reviewed study demonstrates that the calves that were dipped with **Navel-Guard** had 36% fewer infections than 7% tinctured iodine.

PREVENTATIVE STEPS:

Administering a paste or bolus at birth can aid in reducing high pathogenetic loads calves are exposed to.



Excell[™]
All Natural

Excell[™] Prebiotic Supplement from KeyAg Distributors supports prevention of scours, promotes rumen and intestinal development and immune function development by supporting beneficial bacterial growth. **Excell[™]** is a non-medicated, all-natural product. **Excell[™]** is non-toxic and is safe to humans and animals, is not a drug and does not require withdrawal times. Safe for use with antibiotic or animal drugs. **Excell[™]** can help maintain gut integrity and help stimulate and regrow beneficial bacteria.

Add to milk and grain @ 5cc per head/per day to help set up for better weaning to forage diet. Helps with beneficial bacteria to aid in better transition and larger skeletal structure.

- Helps improve rumen function and health
- Helps restore and maintain a healthy balance of digestive bacteria in both the rumen and intestine
- Helps stimulate the immune system
- Helps reduce acidosis, founder and bloat
- Helps expand capacity of the gut for higher feed intakes.

#2

Birth (continued)



Egg Protein Technology (EPT) from KeyAg Distributors supports the immune system during times of sickness and stress. Oral administration of **EPT** provides passive immune therapy in scouring calves for the prevention and treatment of intestinal pathogens from specific IgY proteins which neutralize intestinal pathogens.

- The specific IgY proteins in **EPT** bind with and neutralize intestinal pathogens as they move out of the intestine.

- **EPT** products are highly effective against most common intestinal pathogens which cause diarrhea in animals; such as Rotavirus, Escherichia coli, Coronavirus, Clostridia Enterotoxemia, Salmonella, Cryptosporidia, Coccidiosis.

- The IgY antibodies in **EPT** helps to reduce the incidence of disease by preventing the attachment of pathogens to the intestine and blocking the mucosal receptor and interfering with binding to mucins.

- Safe and effective alternative to antibiotics
- Does not harm beneficial intestinal bacteria
- No development of antibiotic resistance
- Add to colostrum or milk or feeds in powder form
- Can be used daily as a preventative in increased dosages for specific challenges



ProCrypt

ProCrypt from KeyAg Distributors has selective binding properties that have been proven effective against major known pathogens and can be used in all livestock species and is safe for the environment.

- Pathogen-load reduction with multiple modes of action impacting pathogen development for Cocci, Crypto, Corona, Roto, Salmonella, Clostridia, E. Coli
- Promotes liver health – reduces toxin load, improves liver function, reduces liver abscesses
- Protects the gut and aids in prevention of leaky gut and prevents toxin absorption in small intestine
- Add to milk or feeds as a preventative for specific challenges



#2 Birth (continued)

Excell[™]
PRO All Natural

Known specific challenges can be addressed by products to meet that challenge with targeted pastes and powders.

Excell[™] Newborn Paste:

The Excell[™] fermentation product provides an excellent base for the paste and promotes healthy gut bacteria. Six specific IgY egg proteins along with ProCrypt are extremely effective in neutralizing invading pathogens.

RCC:

For calves 0-14 days of age with specific intestinal challenges manifesting in dehydration and diarrhea characteristics including watery, creamy, brown, blood in stool, light green and mucous associated with protozoa and viral activity lasting 2-6 days.

C Blend:

For calves 8-10 days of age with specific intestinal challenges manifesting in dehydration and diarrhea characteristics including watery, blood in stool, yellow associated with protozoa activity lasting 8-10 days.

EC/RC:

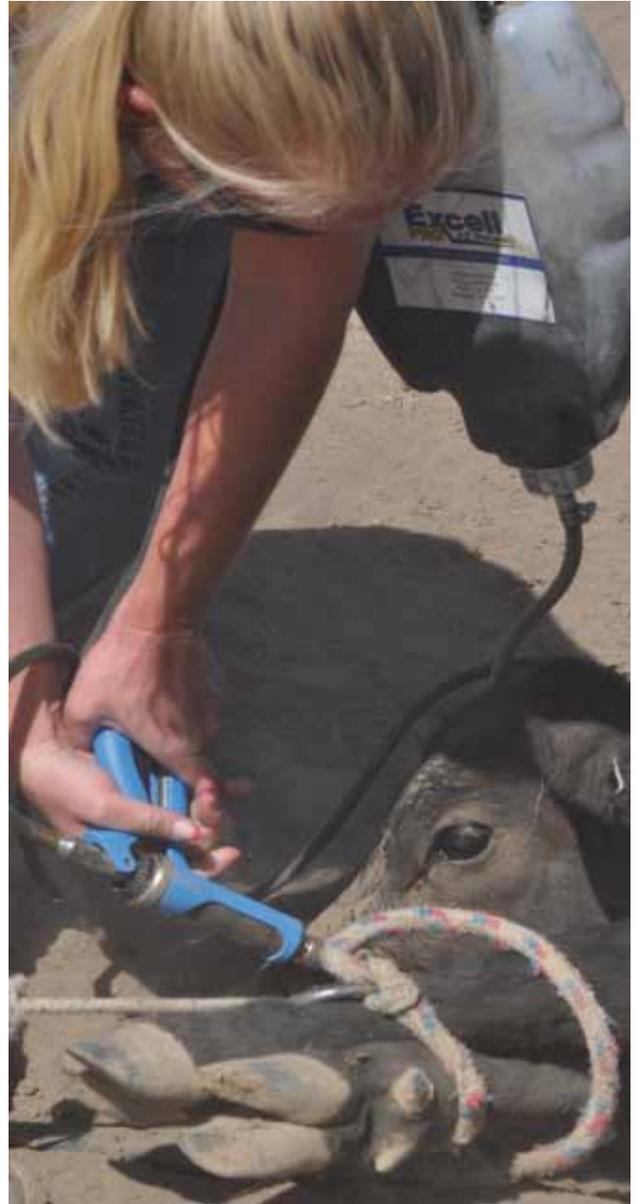
For calves 1-14 days of age with specific intestinal challenges manifesting in dehydration and diarrhea characteristics including watery, creamy, yellow associated with bacterial, viral and protozoa activity lasting 2-7 days.

SA:

For calves 7-10 days of age with specific intestinal challenges manifesting in dehydration and diarrhea characteristics including watery, brown, blood in stool, mucous, yellow, sloughing tissue associated with viral activity lasting 5-7 days.

ProBind (Procrypt):

ProCrypt has selective binding properties that have been prove effective against major known pathogens. ProCrypt is an extract from selected chestnut wood (Castanea Sativa Mill) from the Fagaceae family



ProCrypt

#3 First 30 Days of Life

Once gut closure is complete, the passive immune function is significantly reduced, and the calf becomes dependent on a clean environment and the development of an active immune system able to fight its own pathogen challenges. Unfortunately, the active immune system does not become fully functional until after day 14 to 21.

This period is when we often see significant health issues. Calves develop scours at 2-3 weeks due to overload of pathogen challenge, underdeveloped and ineffective immune function.

ELECTROLYTE THERAPY:

- Flatten the curve of dehydration with early electrolyte therapy
- Don't wait for acidosis
- Important through any digestive challenges



Choose the Right Electrolyte for the Situation!

The KeyAg Custom Electrolyte program:

Excell Pro™ Electrolytes from KeyAg Distributors are formulated and balanced for the specific needs of calves under stress and in various stages of dehydration. These products contain a balance of electrolytes (minerals), carbohydrates (sugars), amino acids and alkalizing agents needed to supplement stressed calves and in rehydrating, replacing lost minerals and provide energy in dehydrated animals. Sodium acetate is used as a buffer; therefore they can be used in conjunction with milk-based diets and can be used as maintenance or therapeutically.

Excell™ from KeyAg Distributors Supports:

- Research has shown improved growth, increased feed intake and equal feed efficiencies compared to the ionophores
- Stimulates and promotes optimum level of rumen micro-organisms for good rumen function for optimum feed intake and digestion
- Maintains beneficial intestinal bacteria for a healthy intestine and immune function

SCOURS:

Testing of fecal samples is ideal. Work from the characteristics of scours if testing is not available to decide correct course of action.

Excell[™]
PRO All Natural

#4 Branding



The process of branding an animal creates a stressful situation when the cattle are rounded up, restrained and branded. When stress occurs, the animal's normal feed intake will be affected which could reduce the digestive bacteria population responsible for feed digestion. If the stress is significant, resulting in depressed intake, especially during environmental challenges like inclement weather or disease challenges, immune function may be compromised resulting in sick cattle.

KeyAg Distributors **Excell™** helps:

- Alleviate stressors of working and branding
- Adjust to turn-out and change of diet
- Promote growth and population of digestive micro-organisms
- Maintain strong appetite and feed intake
- Optimize nutrient intake to maintain strong immune function
- Minimize number of sick animals

Excell Pro™ Custom Stocker Paste contains CA, S and EC Boosters. The **Excell™** fermentation product provides an excellent base for the paste and promotes healthy gut bacteria. Three specific IgY egg antibodies along with ProCrypt are extremely effective in neutralizing invading pathogens. Producers can also use **Excell Pro™ Custom Stocker Paste** when health challenges persist.



#5 Summer Turn Out



Summer takes a toll on your cattle. Hot days and nights leave little relief. As grass turns crispy and dust fills the air, use **Excell™ to get your herd back on track.**

Excell™ supports a healthy rumen and helps with tough environmental conditions. When **Excell™** is fed, cattle can develop a strong appetite, efficient rumen function and optimum digestion for maximum nutrient intake for targeted growth and weight gain.

- Helps maintain rumen pH for consistent feed intake
- High population of rumen microflora for microbial protein and VFA production
- Helps maintain a strong appetite and consistent feed intake
- Helps maintain optimum feed efficiency by supporting digestion and absorption
- Helps support immune function and health status

Upgrade Your Nutritional Program with **Excell™**

Research shows **Excell™** will help optimize rumen function and efficiency helping cattle get more nutrients out of their feed. This is especially important during summer grazing when pasture grasses have matured, and digestibility has declined.



#5 Summer Turn Out (continued)

SUMMER SUPPLEMENTATION

Growing Cattle Requirements:

Young growing cattle have higher nutritional requirements than cows for growth and will exhibit depressed gain and development in deficient pasture conditions. Research has shown .5 lbs. of additional gain can be expected per day when 2-4 lbs. of supplement is fed.

Energy:

Energy is probably the most important nutritional element in beef cattle production since it is the fuel for growth and development, maintenance of body condition and metabolic functions of the animal. Cows need energy for milk production, rebreeding and development of the fetal calf tissues. When pasture grasses become deficient in energy the animal must utilize body fat for maintenance requirements and body condition is lost. When condition is lost, health and performance is affected leading to additional costs to replace the lost body condition and treat other related issues.

Protein:

Protein is the second limiting nutrient in most cattle rations and is the principal building block of most tissues. Without adequate amounts of protein in the diet, rumen function can be depressed, feed intake can drop, and overall nutrient digestion declines resulting in a deficiency of protein needed for growth.

Mature pasture grasses can be very low in protein and high in fiber. This combination can create poor rumen function and depressed fermentation and digestibility. Supplementation of a good protein source will improve rumen function significantly when pastures are poor quality.



Supplementation Options:

Many pasture supplements are available for the various pasture types and locations and are balanced for the specific pasture deficiency to meet the nutritional requirements. Supplemental feeding rates depend on the pasture deficiency and can range from one to four pounds per head per day.

Liquid and poured block supplements are effective in supporting good rumen function. Range cubes and mineral can be formulated to provide additional energy and protein ingredients. Regardless of the type of supplement, a small amount of energy and protein will help maintain animal performance at a lower cost compared to putting weight back on after it is lost.

Cattleman's Choice Dry Mineral Supplements

are a line of custom-formulated, free-choice dry minerals. This line is designed to be used when a protein supplement is not needed including such times as summer grazing, high-quality pasture regrowth, or high levels of alfalfa hay feeding. The Cattleman's Choice line has been formulated to complement the herd's nutritional program. These dry minerals are formulated by our trained nutritional staff based on the requirements of your animals, the nutrients needed, and the specific challenges that your region presents in terms of animal nutrition.



#6 Gathering & Weaning



Minimizing stress is a major goal when processing newly weaned calves or cattle received off a truck. Reduction of stress and how soon cattle get back on feed will determine the animal's future growth, performance and profitability. If the calves get off to a good start during the first 10 to 14 days after weaning, health issues can be reduced, and performance improved.

The first 30-45 days after weaning is usually the most stressful period of the calf's life and is one of the biggest factors that determines the calf's performance during the weaning period and often for the rest of its life. Separation from mother and shipment to unfamiliar locations place a great deal of stress on the animal both nutritionally and emotionally. Stress symptoms start with loss of appetite, off-feed and digestive issues. In addition, health can deteriorate, immune function can be compromised, and the animal often gets sick. In fact, most of the sickness and death loss due to respiratory disease happens at this time affecting over 10% of feedlot animals. Cattle that recover may never gain as expected and usually grade lower than the healthy cattle.

Excell™ Benefits:

- Strong appetite and feed intake stimulation
- Additional nutrient intake to maintain strong immune function
- Health, vigor and added performance
- Less sick animals
- Additional growth and performance compared to ionophores

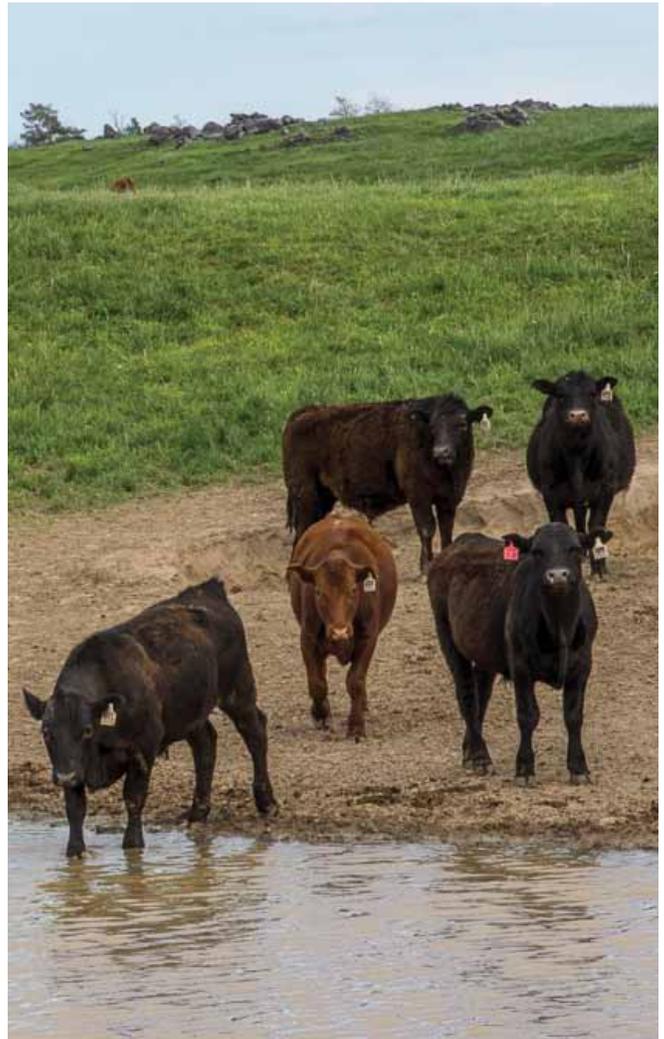


#7 Backgrounding & Growing

Receiving and backgrounding cattle are usually stressed from handling and shipping and getting them started on feed safely is critical. When cattle are started on feed right, they usually perform better for the remainder of the feeding period.

The primary objectives for starting cattle on feed are to stimulate intake and water consumption, increase nutrient intake and to develop a strong immune function.

The most important element for keeping cattle healthy is the development of a properly functioning and efficient rumen for maximum nutrient intake and developing good rumen function for immune system development.



Excell™ Benefits:

- Strong appetite and feed intake stimulation
- Additional nutrient intake to maintain strong immune function
- Health, vigor and added performance
- Less sick animals
- Additional growth and performance compared to ionophores

#8 Feedlot

Feedlot cattle encounter several challenges during their feed out period. First, they are stressed when shipped, sorted and grouped with other cattle. During this early period the cattle have reduced feed intake and mild acidosis is usually present. If the cattle do not get back on feed quickly to restore digestive bacteria and immune function, health issues result. After the cattle have been acclimated to the feed yard and intake has stabilized, the cattle will receive increasing levels of energy concentrates over the feed out period to grow and finish the animal. This increasing energy level often predisposes the animal to acidosis and bloat from time to time. Depending on the severity of the condition, gain and efficiency will be reduced by the damage done in the rumen and to immune function. In severe cases, cattle may grow and finish efficiently due to the damage done to the digestive system.

- **Fluctuating Intake**
- **Acidosis, bloat**
- **Foot problems**
- **Immune function issues**
- **Health issues**



Excell™ Benefits:

- **Helps get cattle back on feed in times of stress**
- **Stimulates and promotes optimum level of rumen micro-organisms**
- **Maintains a healthy intestestine for optimum immune function**
- **Maintain consistent rumen function during high concentrate feeding**
- **Helps maintain normal rumen health and intestinal health**



#9

Breed Back

Focus on cow nutrition should be a primary focus to maintain adequate body condition, good milk production and strong cycling. Feeding the cow to support not only her body condition but addressing the nutrient needs of the fetal calf especially during the first trimester of gestation is critical to optimum calf development.

Excell™ Benefits:

- *Early fetal programming*
- *Provide nutrients for early fetal tissue development*
- *Added nutrient intake for the fetal calf in last 1/3 of gestation and for the developing heifer*
- *Nutrient intake needed for lactation and breeding*

Excell™
All Natural

- *Support the extra energy needs during the wet and cold conditions common in early spring*
- *Provide adequate cow nutrition for milk production and maintenance of body condition*
- *Get cows cycling early so they re-breed on their first cycle*
- *Provide the right nutrition during the first 30-60 days of fetal development when most fetal tissue develops*



#10 60 Days Prior to Birth

ProCrypt

Mineral Supplementation:

Proper mineral supplementation of the mother cow and rapidly growing fetus is necessary for the requirements of your animals, the nutrients needed, and the specific challenges that your region presents in terms of animal nutrition.

***ProCrypt** mineral fortifier from KeyAg Distributors can help aid in the reduction of the passive transfer of pathogenic loads including cryptosporidium.*



Great Performance Requires a Strong Start and a Strong Finish

When your profitability and animal performance are on the line, your animals need more than just good nutrition.

They need **KeyAg** *Products*
DISTRIBUTORS

For Conventional or All-Natural Programs

Now What?

Great Performance Requires a Strong Start and a Strong Finish

When your profitability and animal performance are on the line, your animals need more than just good nutrition...they need products from



KeyAg Products Provide:

- Better performance and health solutions
- Success in your beef operation beginning with a foundation of good nutrition and digestive health, no matter what life stage your animals are in
- KeyAg products combined with our **Complete Calf Care** Program helps optimize rumen function for healthier cattle and can assist with reducing stress and illness while improving production efficiency.



COMPLETE CALF CARE = Performance, Prevention & Treatment

- More effective, easy-to-use, and competitively priced compared to typical all-natural products
- Designed to keep animals healthy to perform to their genetic potential
- Helps improve rumen function and health
- Helps restore and maintain a healthy balance of digestive bacteria in both the rumen and intestine
- Helps stimulate the immune system
- Helps reduce acidosis, founder and bloat

For more Information, contact KeyAg Distributors
1.800.388.3659 * www.keyag.com * info@keyag.com