



Cleveland County



**4-H Dairy Steer Project Guide
2013**



**A Practical How-To Guide for Raising Your
4-H Dairy Steer**

Provided by:

Cleveland County 4-H
130 S. Post Road, Suite 1
Shelby, NC 28152

The Cleveland County 4-H Dairy Steer Project

Purpose: Initiated in 2008, the 4-H Dairy Steer Project was designed to provide an opportunity for youth ages 7 to 18 to develop important life skills through their involvement in a long-term, hands-on livestock activity. These life skills include:

- Responsibility
- Time management
- Follow-through on commitment
- Communication
- Decision-making
- Teamwork
- Record-keeping
- Sportsmanship

The project helps participants develop basic animal husbandry skills and a greater appreciation for production agriculture. It also provides opportunities for parents, volunteer adult leaders, corporate sponsors, and the community to take an active role in the 4-H youth development process.

Project Overview: Participants are responsible for bottle-raising a dairy bull calf from shortly after birth through weaning. Thereafter, they are responsible for feeding that calf to approximately 8 months of age (approximately 600 pounds), participating in 4-H workshops and clinics, exhibiting their animal at the Cleveland County Fair, and selling their calf. Participants earn all monies received from the sale of their calves. Participants in both the Junior Division (ages 9 to 13) and the Senior Division (ages 14 to 18) will compete (Cloverbuds, ages 7-8 will participate only and not compete), being ranked by a livestock judge on their accomplishments in the following two areas:

1. Steer growth & performance
2. Fitting & showmanship skills

The Overall Grand Champion (1st place) and Reserve Champion (2nd Place) project animals from the Junior and Senior divisions will "sell" first at the support auction. The remainder will "sell" in alphabetical order or at Fair Livestock Manager's discretion. This is a mock auction used for youth support only. All calves will be sold at stockyard or to singular high bid livestock buyer.

Requirements:

Facilities: Participants must provide a suitable environment for raising their calf. An enclosed area is needed to keep the calf safe from predators and to prevent it from wandering into traffic. A fenced barnyard, lot or large dog kennel will suffice. Shelter to protect the animal from wind and rain is also a must. If a barn or shed is not available, you can build a portable calf hutch (plans are included in your project packet). The Project Committee will conduct an on-site inspection of the proposed calf-raising facility prior to distributing calves to participants.

Commitment: In order to keep dairy calves healthy and growing, they must be fed twice daily and observed daily for signs of illness. Housing and equipment must be kept clean and sanitary. Halter breaking a calf and teaching it to lead requires time and patience. Youth need adult supervision and encouragement, but will only learn life skills by doing this work themselves. Youth must be able and willing to contribute significant amounts of time and attention to their animal. Also, this is a terminal livestock project (not a pet project) to teach participants about the commercial production of meat animals. All calves will be sold at the completion of



the project. Youth likely to develop strong emotional attachments to their calves should probably not participate.

Support: Since the project requires a commitment of money and travel, youth participants will need the support and assistance from a parent or other caring adult. Local farmers are supplying the calves at a discounted cost, and the Project Committee is currently working to secure corporate sponsors to keep project costs as low as possible, but participating families should be prepared to spend an estimated \$300-\$500 during the

course of the project for feed, hay, and other essentials. They will also need to arrange for hauling of their calf to clinics and to the Cleveland County Fair. Youth may elect to reimburse their family for a portion of these expenses from their prize winnings or sale proceeds.

The 4-H Dairy Steer Project Committee will supply some products and equipment, and will provide direct assistance in castrating, dehorning, vaccinating, and de-worming calves. The 4-H Youth Development Program will coordinate workshops to aid youth in halter-breaking, fitting, and showing their steers. We will also make pre-scheduled on-site assessments, and should be contacted promptly in the event of animal health emergencies.

How to use this Project Guide

This Production Guide will provide you with the basic information you need to be successful in your 4-H project. There are other reliable sources of information, including NC Cooperative Extension staff, farmers, veterinarians, and others who are able and willing to assist you.

Certain livestock terms will be highlighted in **bold text**. A Glossary, located at the back of this production Guide will help you understand these terms and incorporate them into your livestock vocabulary. Doing additional research on the important topics covered in this Production Guide will also prepare you to answer technical questions that the judge might ask in the Fitting & Showmanship Competition during the Cleveland County Fair. Enhancing your technical knowledge will gain you some valuable points in the show ring.

Occasionally, you will see a project suggestion. Although not a project requirement, these suggestions might make your project more enjoyable and rewarding.

What kind of calf will you receive for this project?

Ideally, the type of calf for this project would be a **beef breed**. However, raising a beef steer to market weight can be expensive. A feeder calf purchased at 400 to 800 pounds and finished to a weight of 1,000 to 1,300 pounds can add up to an investment of \$1,000 or more! In order to enable more 4-H members to be involved in a cattle project at lesser expense, you will be receiving a baby **dairy breed** (Holstein) calf and raising it to a feeder size of approximately 700 pounds.

Most beef producers will not sell young calves, because they leave them to nurse their mothers until they are weaned at 7-9 months old. The dairyman, on the other hand, removes calves from their mothers shortly after birth, and harvests the milk the mother cow produces for the human food supply. Since baby calves are quite fragile and can become ill quickly, it is important for the dairyman to take a couple of important steps to protect the baby calf from disease. First, the calf needs to have its navel cord dipped to prevent infection. Second the calf needs to receive an adequate intake of disease-preventing **colostrum** during the first few hours of life.

Some of the baby dairy **heifers** will become future milk producers in the dairy herd, so the dairyman will keep them and raise them much the same way you will care for your calf. However, since the **bulls** can't produce milk, the dairyman considers them a by-product of his dairy enterprise, and sells them when they are a few days old. Often, these calves are quite affordable, and provides an opportunity for others who have the time and facilities to care for them properly. Your calf has been donated to 4-H in support of this project by an area dairy farmer.

Project Suggestion: *You may want to write that farmer who supplied your calf a note of thanks, or contact him directly to express your appreciation and to learn more about his farming operation.*

What facilities do you need to raise a dairy calf?

Obviously, you are going to need to prepare a safe place to keep your calf prior to receiving it. For that reason, the 4-H Dairy Steer Project Committee will conduct an on-site inspection of the proposed calf-raising facility prior to distributing calves to participants.

In the beginning, while the calf is still small, it needs protection from **predators** and must be prevented from wandering into traffic or other dangers. An enclosed area is required for keeping the calf safe (a fenced barnyard, lot or large dog kennel will suffice). Shelter (a barn stall, shed, or portable hutch) to protect the animal from wind and rain is also a must. NC Cooperative Extension has provided plans for constructing a suitable calf hutch (enclosed in this packet). The hutch should be located in a clean, dry, sunny area and oriented to protect the calf from prevailing winds and blowing rain. Avoid drafts, yet make sure the hutch is well ventilated. Be sure to provide containers for feed and water, secure them from spilling, and keep them clean. Provide clean, dry bedding (pine shavings or wheat straw) and remove manure and urine daily. Move the hutch to a new location if the area becomes muddy. Since baby calves are prone to pick up disease organisms from their environment, it is wise to keep them separated from other livestock until they are 3 to 4 months of age and have received their vaccinations.

What basic equipment and supplies will you need?

1. **Milk replacer.** The objective in feeding your calf is to provide the proper nutrients to grow a healthy calf as fast as possible. A quality dry **milk replacer** is expensive, but provides the essential nourishment that a young calf needs. Cheap milk replacers are available on the market, but calves fed them do not perform well. A corporate sponsor is providing you with a free 50-pound bag of quality milk replacer (see enclosed product label). This will be enough product to carry your calf through to weaning age, but you may elect to purchase a second bag to supplement your calf with additional milk if you so choose.
2. **Milk Bottle or Pail.** A bottle or pail with a rubber nipple is needed for feeding milk replacer to your calf. A project sponsor is providing a bottle for each project participant. Be sure to keep it clean and in good condition.
3. **Feed and water containers.** Provide small buckets to keep starter feed and fresh water accessible to your calf. Secure them with hooks or in a holder so that the calf will not turn them over.
4. **Cleaning & Sanitizing Supplies.** Your milk bottle, feed and water containers will need to be kept clean and sanitary. You will need access to water, plus dishwashing detergent, chlorine bleach, brushes and old cleaning cloths or towels.
5. **Feed storage.** You will need a place to keep your milk replacer and pelletized calf feed dry. Storing them in a large covered trash will prevent spills and access from rodents and other wildlife.
6. **First aid kit.** This kit should contain a rectal thermometer and scour medications (provided by 4-H). Include other items that you think might come in handy.
7. **Rope halter.**
8. **Manure fork & wheelbarrow.** These tools are essential for removing manure, urine, and soiled bedding. Use them every day!
9. **Bedding.** Pine shavings or wheat straw will help keep your calf warm and dry.

Basic Calf Hutch Management

Your hutch will provide housing for your calf during its first 8 to 10 weeks of life (the time when the calf is most likely to become sick or die). Managing the hutch properly will help keep your calf healthy. The following are some important tips for good calf management in hutches:

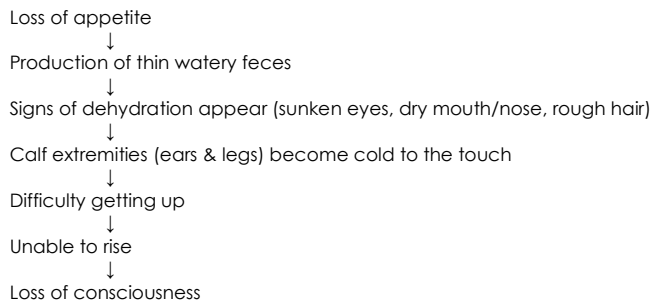
1. Group housing of baby calves **is not** an acceptable practice. Calves can pick up disease-causing organisms from their environment and from other animals. Calves should be housed one animal per hutch with hutches placed no closer than 12 feet. Baby calves need to be housed a considerable distance away from other livestock... especially adult cattle.
2. Since sick calves shed infectious bacteria and viruses, people, utensils, and equipment can spread disease from one animal to another. If your family is raising more than one animal, never exchange bottles, feeding containers, or other equipment between calves. If one calf becomes sick, tend to the healthy calf first. Remember that you can transmit disease when handling the animals.
3. Keep your utensils and equipment clean. Items requiring special attention include your milk bottle and mixing utensils. After each feeding, rinse these items with warm water (not hot) to prevent milk proteins from coagulating and sticking to them. Follow up by washing with hot water and soap. Use a bottle brush, or place a wash cloth inside the bottle and shake well to loosen debris. Be sure to rinse well (soap residue can cause digestive problems). Finish the job by dipping the bottle and nipple into sanitizing "bleach water".

4. To make sanitizing "bleach water," mix one gallon of water with a half a capful of bleach. This strength of bleach water will kill germs and sanitize the surface without leaving a harmful residue behind.
5. Make fresh bleach water each time you clean, as it becomes deactivated after use or when left in open containers.
6. Flies can also spread disease organisms, especially E. coli and Salmonella. Since you will be receiving your calf during the winter months, flies should not be an issue. If they are, however, fly baits, traps, and tapes should help. Bedding with shavings or sawdust instead of straw will prevent explosive growth of fly populations. Frequent removal of manure, urine, and spilled feed is a must. A build-up of deep, wet, heavily compacted bedding diminishes the health advantages provided by hutches, regardless of fly infestation.
- 7 **Lastly, do not allow calves to remain in hutches for excessive periods of time. In time, calves will outgrow the space and natural ventilation provided by hutches, and will fail to thrive unless allowed space for grazing and exercise. A good time for removal is 8 to 10 weeks of age.**

Health Concerns

Baby calves are susceptible to **scours** and **pneumonia**, especially during the first few weeks of life. Fortunately, as they get older, they become more resistant to these diseases.

Scours. Newborn calves are extremely susceptible to calf scours, or diarrhea, especially during their first 28 days of life. Bacteria and viruses attack the lining of the calf's intestine, making it difficult for the animal to absorb essential nutrients from milk. Profuse, watery diarrhea occurs, causing the calf to lose those nutrients and become dehydrated. If disease is severe, the calf may die; however, even calves that survive severe cases will have lifelong poorer performance than healthy calves. It is important to detect and treat scours early! Observe your calf frequently and act quickly if he doesn't look or act right. Loss of energy, not stretching after a period of rest, droopy ears may mean he is getting sick. Here are the clinical signs of diarrhea:



Scours can be caused by disease organisms (bacteria, viruses, parasites) or by overfeeding. Since you aren't qualified to determine what type of scours your calf has, contact a member of the project team as quickly as possible whenever you suspect a problem. They will advise you on how to use products contained in your first aid kit, and likely will schedule an emergency visit to help you with your calf.

The key to distinguishing between disease and scours caused by overfeeding is the body temperature of the calf. The **normal body temperature**, determined with a rectal thermometer, is between 101-101.5. Diarrhea in sick calves results in losses of water and electrolytes, such as sodium, bicarbonate, chlorine, and potassium. Scouring calves can lose 10 to 12% of their body weight in water losses. These imbalances must be corrected quickly or death can result.

Table 1. Emergency recipe for electrolyte solution for scouring calves

- 1 package of fruit pectin
- 1 teaspoon Lite Salt®
- 2 teaspoons baking soda
- 1 can chicken stock*
- warm water to make 2 quarts

.*Do not use beef stock or beef consommé

Depending on the severity of the diarrhea and dehydration, calves may need to receive oral electrolyte solutions once daily or as many as four times a day. Calves that cannot suckle should be fed electrolytes with an esophageal feeder. When using an **esophageal feeder**, it is important to insert the tube properly to prevent the aspiration of fluids into the lungs. The Project Committee will have an esophageal feeder on hand and demonstrate its proper use should the need arise.

Scouring calves should receive oral electrolytes. The greatest concern for a scouring calf should be to replace the loss of minerals and avoid body weight loss. Therefore, the immediate treatment should be to replace the lost minerals by feeding an electrolyte solution in addition to milk or milk replacer. Effective electrolyte powders for mixing with water are available from your veterinarian. The electrolytes should be mixed according to instructions and fed 10 to 15 minutes after the milk or milk replacer. It is important not to feed the electrolyte solution immediately after the milk, since the solution will dilute the milk too much and will affect the digestive enzymes. Since a scouring calf's digestive system is upset, the feeding schedule should be changed to avoid overloading the system. Milk or milk replacer should be fed at the rate of 1 percent of the calf's birth weight, but this total amount should be divided into four equal feedings. A good feeding schedule would be: morning, noon, evening, and bedtime. The same amount of electrolyte solution should be fed approximately 15 minutes after the milk. When the scouring condition begins to subside, the number of feedings can be reduced to three times per day and then two times per day. Finally, the use of the electrolyte solution can be withdrawn during a three-day period. Electrolytes are available commercially, or in an emergency, they can be made using common kitchen supplies (Table 1).

If your calf has a normal body temperature but still has scours, you are probably overfeeding milk replacer. Know the age of your calf and feed it only the amount it needs. Calves that are only a few days old don't necessarily need a full bottle at each feeding. It is better for the calf to get hungry between feedings than to suffer the discomfort and dangers of scours.

Pneumonia

Pneumonia is an inflammation of the lungs caused by one or more viruses or bacteria. Clinical signs of pneumonia include nasal discharge (runny nose), dry cough, fever, respiratory distress (difficulty breathing), and decreased appetite.

You can do a lot to help prevent pneumonia. Here are some tips:

1. Calves housed in facilities that are under-bedded, warm, damp, humid, or poorly ventilated are more likely to contract pneumonia. Prevent these conditions.
2. Noxious gases, dusts and molds in the air put calves at significant risk for developing pneumonia. Locate your hutch in an open, sunny area that is protected from strong drafts and blowing rain.
3. Prevent calf-to-calf contact, and keep baby calves away from other livestock, especially adult cattle.
4. For dairy calves, inappropriate volume, concentration, mixing or feeding temperature of milk or milk replacer can compromise the immunity of the calf. Consistent feeding practices – timing, presentation, temperature and quality of feeds, personnel and management practices enhance the immunity of the calf.
5. Limit disease risk by reducing calf stress. Stress is imposed when calves are asked to adapt to change. Feed and housing changes create stress. Each time there is a change the calf is more susceptible to disease.
6. Keep things simple for calves. Feed milk replacer at a consistent time, temperature and concentration throughout the pre-weaning period.

Feeding Your Calf

The objective in feeding your calf is to provide the proper nutrients to keep the calf healthy and to grow as fast as possible. With young calves, you will need to feed a milk replacer while allowing the calf access to fresh water and a quality medicated starter ration.

Milk Replacer: Milk replacer powders are reconstituted with warm water and make an excellent and oftentimes economical liquid feed for baby calves. Especially during the first three weeks of life, calves should be fed a milk replacer that contains all milk proteins made from dried skim milk or whey products. Milk replacers should contain a minimum of 18 to 22% crude protein, 10 to 22% crude fat, and less than 0.5% crude fiber. They should be mixed and fed according to the manufacturer's directions.

Waco Branch of Southern States Cooperative is providing you with a 50-pound bag of quality milk replacer. This should be enough product to carry your calf through to weaning. Calves perform better with a second bag of milk. You may purchase additional milk replacer to supplement your calf if you choose. The product label is on the next page of this Production Guide. Be sure to read the information on the bag and follow the instructions. The cup contained in the bag is for measuring the proper amount of powdered milk to mix with water.

Here are some feeding tips:

1. When mixing, add powder to water while stirring constantly with a wire whip. Use the warmest water that you can tolerate on the back of your hand (110-120° F). This temperature will make it easier to get the powder into solution and prevent separation of the powder.
2. Allow the milk to cool a few degrees prior to feeding. Feed at 90-100° F.
3. Feed twice every day, and try to establish a regular feeding schedule. It is not critical to feed your calf exactly 12 hours apart, but it is important to feed at the same time every day. A regular feeding schedule will reduce stress on your calf.
4. If your family has more than one calf, do not interchange bottles after you have started feeding.
5. Rinse your bottle, nipple and mixing utensils before the milk replacer dries on them. This will make washing and sanitizing easier. Bits of dried milk replacer can harbor the growth of harmful bacteria.
6. Your free bag of milk replacer will provide about 4 weeks of feeding. To produce a robust calf, consider extending bottle feeding beyond the 4-6 week minimum. You will need to purchase additional powdered milk replacer (don't switch brands!), but you will wind up with a heavier, more attractive calf on show day.
7. Some experienced calf raisers suggest adding about ½ cup of dry powdered milk replacer to the starter feed after you **wean** your calf from liquid milk replacer. This eases the transition to a solid diet, promotes consumption of the dry feed, and provides the calf additional nutrients. You can use a cheaper, lower quality milk replacer for this purpose, as long as it is milk-based (not soy-based).
8. Stay calm and relaxed while feeding your calf. Talk to him and handle him. This "quality time" will help your calf learn to trust you, making halter-breaking much easier.
9. Observe your calf closely while feeding him. Notice any changes in appetite or appearance that might suggest he is not feeling well. Be sure to check for early warning signs of scours or pneumonia.
10. Make hutch cleaning and sanitation a part of the daily routine after bottle feeding.
11. Monitor the amount of starter feed and water left behind between feedings. Ideally, just a very small amount of feed should be left uneaten (surplus leftovers may spoil, attract flies, and become **unpalatable**). Supply fresh feed and water, adjusting the amount according to your calf's appetite.



SOUTHERN STATES

1476600-106

Brands you trust. People who know.

CALF MAKER® NT MEDICATED

DAIRY HERD AND BEEF CALF MILK REPLACER

To aid in the treatment of bacterial enteritis (scours) in calves.
Withdraw from calves 30 days before slaughter

ACTIVE INGREDIENTS

Oxytetracycline 200 grams per ton
Neomycin Base 400 grams per ton
(from Neomycin Sulfate)

GUARANTEED ANALYSIS

Crude Protein, not less than 20.0%
Crude Fat, not less than 20.0%
Crude Fiber, not more than 0.15%
Calcium (Ca), not less than 0.75%
Phosphorus (P), not less than 1.25%
Vitamin A, not less than 20,000 I.U./lb.
Vitamin D3, not less than 5,000 I.U./lb.
Vitamin E, not less than 100 I.U./lb.

INGREDIENTS

Dried Whey, Dried Whey Protein Concentrate, Dried Whey Product, Dried Skim Milk, Dried Milk Protein, Animal Fat (preserved with Ethoxyquin), Lecithin, Polysorbate 80, Dicalcium Phosphate, Calcium Carbonate, Vitamin A Acetate, Vitamin D3 Supplement, Vitamin E Supplement, Thiamin Mononitrate, Pyridoxine Hydrochloride, Folic Acid, Vitamin B12 Supplement, Choline Chloride, Calcium Silicate, Manganese Sulfate, Zinc Sulfate, Ferrous Sulfate, Cobalt Sulfate, Ethylenediamine Dihydrate, Selenium Yeast and Natural and Artificial Flavor.

GENERAL RECOMMENDATIONS

1. Feed newborn calves 3 quarts of high quality warm colostrum via nipple bottle within 1 hour of birth and repeat 12 hours later (or) feed 4 quarts of high quality colostrum by esophageal feeder within 1 hour of birth and repeat 12 hours later via nipple bottle as much as they will consume.
2. Consult with your veterinarian on a dry cow and calf vaccination program including but not limited to E. coli, rota and corona virus, clostridium, and salmonella.
3. For best mixing, stir with wire whip while adding powder to 110-120° F water (hot as you can tolerate on your hand). Use correct water temperature to avoid product separation. Feed milk replacer at 90-100° F.
4. Begin feeding milk replacer on day 2 and provide fresh, clean water along with a high quality, palatable calf starter on a free-choice basis.
5. Observe calves closely during the milk replacer feeding period. Avoid underfeeding, which may result in starvation, or overconsumption, which may increase incidence of scours.
6. Continue to feed milk replacer until the calf is consuming 1½ pounds of calf starter per day, which usually occurs at 4-6 weeks of age

Calf Maker® is a registered trademark of Southern States Cooperative, Inc.

Manufactured For
SOUTHERN STATE COOPERATIVE, INC.
P.O. Box 26234
Richmond, Virginia 23260
Net Weight Show on Bag
51106001

MIXING DIRECTIONS

- Use the plastic cup provided to measure the milk replacer powder.
- Mix replacer powder according to the schedule listed below by adding powder to water as indicated and mix thoroughly.

	Milk Replacer Powder	Warm Water (110-120° F)
Individual Calf		
Recommended	12 oz. (full cup)	+ 2 quarts
Standard	10 oz. (line on cup)	+ 2 quarts
Large Batch		
Recommended	1.5 lb (24 oz)	+ 1 gallon
Standard	1.25 lb (20 oz)	+ 1 gallon

FEEDING DIRECTIONS (2 days to Weaning)

Small Breeds: Feed 1.5 – 2 quarts twice daily
Large Breeds: Feed 2.3 quarts or fill 2 quart bottle to rim and feed twice daily.

In extremely cold weather it may be beneficial to feed another feeding of calf milk replacer in the middle of the day. Add ½ cup of milk replacer powder to 1 quart 110-120° F water, mix and feed to 1 calf at midday.

WARNING: A withdrawal period has not been established for this product in pre-ruminating calves. Do not use in calves to be processed for veal.

Calf Starter and Water are Important!

For the first part of life, the calf functions as a simple-stomached or monogastric animal. At birth, the first three components of the stomach—the **rumen, reticulum, and omasum**—are undeveloped and do not aid in digesting feeds for the very young calf. When the calf starts to eat calf starter (mixture of grains, protein source, minerals, and vitamins) and to drink water, the rumen starts to develop.

<p>Table 2. Nutrient composition for calf starters.*</p> <ul style="list-style-type: none"> • 16-20% crude protein • 0.70% calcium • 0.45 % phosphorus • 0.65 % potassium • 10 ppm copper • 40 ppm zinc • 40 ppm manganese • 0.10 ppm cobalt • 0.30 ppm selenium • 1818 IU Vitamin A/lb dry matter • 270 IU Vitamin D/lb dry matter • 12 IU Vitamin E/lb dry matter <p>* Adapted from <i>Nutrient Requirements for Dairy Cattle—2001</i></p>

Calf starter should be introduced to calves starting at three to four days of age. Calf starter should be formulated to include very palatable ingredients and to contain adequate protein, minerals, and vitamins. Table 2 lists the recommended nutrient content of a calf starter. A coccidiostat such as **Bovatec®** or **Rumensin®**, should be included in the calf starter to prevent **coccidiosis**.

Southern States Cooperative is supplying each calf with its first three bags of medicated starter feed. The product label is included on the following page of this Project Guide. Be sure to read and follow label directions.

Project Suggestion: *Be sure to thank the folks at Southern States for their generous contribution. When you visit the store for more supplies, let them know how your calf is doing, and ask them for suggestions and advice.*

The calf starter along with water helps the rumen of the calf develop. For the first two weeks of life, calves will just nibble calf starter. They should be given no more than a 6-ounce coffee cup of starter daily with the refused feed removed daily. Intake of the starter increases the third to fourth weeks of life. When your calf is three weeks old, offer a little more starter feed and increase slowly. You don't want too much refusal. Leftover feed in the pan will spoil, creating wasted product, harboring bacteria, and attracting pests.

Hay should not be fed until calves are weaned and/or they are at least eight weeks of age.

In addition to the calf starter, water should be provided free-choice starting at four days of age. Feeding calves free-choice water increases starter intake and weight gain. In a research study, depriving calves of drinking water decreased starter intake by 31% and decreased weight gain by 38% over those calves provided water free-choice. Free-choice water enters the rumen and along with high-quality calf starter helps convert a calf from a simple-stomached animal to one with a functional rumen that can utilize forages and grains. When calves are fed milk or reconstituted milk replacer, milk is funneled through the esophageal groove to the true stomach and not into the rumen. Thus, milk or water added to milk will not provide water for the bacteria to grow in the calf's rumen. Clean, fresh water must be provided separately, free-choice. Water must be provided free-choice throughout the year, not just in the summertime. During extremely cold weather, warm water should be offered two or three times daily.

Calf starter and water should be fed to calves starting at four days of age. Both calf starter and water fed separately from a calf's milk are needed to convert a calf from a simple-stomached animal to one with a functional rumen that can utilize forages.



**SSC INTENSITY
22% CALF STARTER (RUM)
MEDICATED**

A CALF STARTER FEED

Calves (excluding veal calves):

For the prevention and control of coccidiosis caused by *Eimeria bovis* and *Eimeria zuernii*

Active Drug Ingredient

Monensin 40g/ton
(20 mg/lb)

Guaranteed Analysis

Crude Protein (min)	22.00%		
Crude Fat (min)	3.5%		
Crude Fiber (max)	8.00%		
Acid Detergent Fiber, ADF (max)	11.00%		
Calcium, Ca (min)	0.90%	(max)	1.4%
Phosphorus, P (min)	0.60%		
Selenium, Se (min)	0.30 ppm		
Vitamin A (min)	10,000 IU/lb		

Ingredients

(free from Restricted Ruminant Protein Products per Titke 21, CFR 589.2000)

Grain Products, Plant Protein Products, Processed Grain By-Products, Animal Protein Products, Roughage Products, Molasses Products, Ground Limestone, Dicalcium Phosphate, Salt, Magnesium Oxide, Potassium Sulfate, Magnesium Sulfate, Calcium Carbonate, Manganous Oxide, Manganese Proteinates, Zinc Oxide, Zinc Proteinates, Ferrous Sulfate, Copper Sulfate, Copper Proteinates, Cobalt Carbonate, Ethylenediamine Dihydrochloride, Selenium Yeast, Vitamin A Supplement, Vitamin D Supplement, Vitamin B Supplement, Menadione Sodium Bisulfite Complex (Source of Vitamin K Activity), Riboflavin Supplement, Niacin Supplement, Calcium Pantothenate, Vitamin B₁₂ Supplement, Biotin, Thiamine Mononitrate, Pyroxine Hydrochloride, Folic Acid, Calcium Lignin Sulfonate, Yeast Culture, Brewers Dried Yeast, Yeast Fermentation Solubles, Soybean Oil, Natural Flavors, Essential Oils.

Tag Code: 80625-R 1455

Lot#: R8263

Bag#: 0037

FEEDING DIRECTIONS

Feed to calves (excluding veal calves) at the rate of 0.7 to 5.0 lbs per 100 lbs. of body weight per day depending on the severity of challenge up to a maximum of 10 lbs. per head per day or 200 mg per head per day. This will provide 0.14 to 1.0 mg Monensin per pound of Bodyweight per day.

NOTE: Do not permit intake of supplemental selenium to exceed 0.3 ppm in the total ration.

Caution:

Do not allow horses or other equines access to feed containing Monensin. Ingestion of Monensin by horse has been fatal. Monensin medicated cattle and goat feeds are safe for use in cattle and goats only. Consumption by unapproved species may result in toxic reactions. Do not exceed the levels of Monensin recommended in the feeding directions, as reduced average daily gains may result. If feed refusals containing Monensin are fed to other groups of cattle, the concentration of Monensin in the refusals and the amount of refusal feed should be taken into consideration to prevent Monensin overdosing.

Warning:

A withdrawal time has not been established for pre-ruminating calves. Do not use in calves to be processed for veal.

Weaning Your Calf

Your calf can be weaned from milk when he is drinking plenty of water and eating 2 pounds of starter feed per day for three days in a row. He can be weaned from milk abruptly, but if possible, your calf will benefit from a gradual weaning over a two week period. During this transition feed once a day for several days and then feed every other day until you discontinue bottle feeding entirely. You can replace the second bottle of milk with a bottle of warm water if you prefer.

Feeding Your Calf After Weaning

Eight months from now, your newborn calf will be competing in a stock class at the Cleveland County Fair. A heavy, well-developed steer will be awarded a higher class placing by the judge and will command a higher support price from the buyer. Therefore, it is to your advantage to provide your steer with proper care and feeding as it continues to grow.



After weaning, your steer is ready to be removed from its hutch. If your family is raising more than one calf, this is a good time to group them together (calves usually perform better in small groups than when raised alone). Your calf will still need protection from cold wind, rain, and hot sun, so be sure to provide access to a barn or shed.

The goal of feeding your calf after weaning is to provide the nutrients your calf needs for good skeletal and muscle development. Complete mixed rations, supplemented with forage (grass or hay) and fresh water will help you accomplish this goal.

The Post-Weaning Slump

It is not unusual for weight gains to slump shortly after weaning. Changes in diet and environment create severe stress on your calf. Don't be alarmed if this happens, as long as your calf appears alert and is eating its medicated starter feed, drinking plenty of water, and starting to nibble on grass or hay, he will be ok. To minimize the post weaning slump, you can add about ½ cup of dry powdered milk replacer to the starter feed after you wean your calf from liquid milk replacer. This eases the transition to a solid diet, promotes consumption of the dry feed, and provides the calf additional nutrients. You can use a cheaper, lower quality milk replacer for this purpose, as long as it is milk-based (not soy-based).

Changing to a Grower Mix

After your weaned calf is routinely eating 4 to 5 pounds of medicated starter feed per day, it can be switched to a less expensive calf grower concentrate mix. Make this change gradually over a 4- to 7-day period. This grower mix should contain 16-18% protein and should include Bovatec® or Rumensin®. Providing your calf with access to good pasture or high quality hay will provide an additional source of nutrition.

Health Management

The Project Team will be helping you implement a health management program that focuses on safety and disease prevention. It includes the following components:

Castration: Your bull calf will be castrated when it is about 8 weeks old (after castration, your calf will become a **steer**). Beef bull calves are castrated for the following reasons:

- To prevent them from mating after they have reached puberty.
- Steers are usually more docile, easier to control and safer to work around than bulls (dairy bulls can become dangerously aggressive).
- Steers are finished sooner than bulls because fat deposition occurs at a faster rate.

Dehorning: Holstein calves will eventually grow horns (you can feel the horn buttons on newborn calves). As a part of the health management program, your calf will be dehorned when it is about 8 weeks old. If they are not naturally **polled**, beef calves are dehorned to prevent them from injuring their human handlers and pen mates.

Project Suggestion:
Learn about the different methods used to castrate and dehorn calves. Which methods are better, and why?

Vaccination: Your steer received its initial immunity to disease from the colostrum it received as a newborn. Vaccinating it against other potentially serious diseases is a cheap, effective way to prevent serious illness or death. The Project Team will be helping you administer the initial vaccinations and booster shots. It is important to give shots the right way. You will learn about this from the Project Team.

Sample Health Management Program for Dairy Steers

<u>Age of Calf</u>	<u>Recommendation</u>
8 weeks	Castrate & Dehorn
8 weeks	Vaccinate for infectious bovine rhinotracheitis (IBR), parainfluenza (PI ₃), bovine virus diarrhea (BVD), bovine respiratory syncytial virus (BRSV), clostridial diseases (7-way), and pinkeye.
10 weeks	Give booster injection for diseases listed above
20 weeks	Deworm
32 weeks	Give second booster vaccine and deworm
	Note: Our veterinarian will develop a protocol for use with the Dairy Steer Project.

Deworming: Your calf can become infested with several different types of **internal parasites** (worms). These worms can make your animal sick, impair growth, or cause organ and tissue damage. The Project Team will advise and assist you in the safe use of one or more drugs to kill these parasites.

Fly Control: Flies can be a real problem around livestock... they annoy animals and people! Frequent removal of manure, wet bedding and spilled feed will help reduce fly problems. There are some flies which are very bothersome. Horn flies are small, dark gray, blood-sucking flies that stay on cattle almost continuously. Their feeding activity is painful and annoying, as well as causing some blood loss. This stress is probably the cause of reduced weight gain during the summer. They can be controlled using an **insecticide ear tag**, which the Project Team will help you apply to your calf's ear sometime after April 1.

Halter Breaking Your Calf & Training to Lead



If you spend quality time with your calf from the beginning, he will learn to trust you, and halter breaking should be relatively easy.

Learn how to put it on your calf properly and adjust it to fit. The long loop is positioned over the head and rests snugly behind the calf's ears. The shorter loop goes over the face, about halfway between the eyes and muzzle. Be sure to adjust the halter so that the rope does not come into contact with the steer's eyes. When you pull on the rope, it should put pressure under your calf's chin. Also, remember

that you will always stand on your calf's left side while leading it.

One of the first things you can do with your bucket calf is train it to lead. Training a calf to lead is sometimes time consuming and some calves will test your patience. However, after a few short lessons, you will be amazed at how well your calf responds to your training.

Since you are raising your calf from birth, there are some things you can do to help when the time comes for training the calf to lead. During the milk feeding period, your calf will become gentler if you will pet it while feeding. Also, this is a good time to train the calf with a halter. Start by teaching it to follow the bottle and control the calf with the halter. At this time the calf is small enough to be easily controlled.

In the beginning, you may need some help from someone to gently push your calf from behind. Try to lead your calf by not tugging hard on the halter. Instead, most of the pressure to encourage the calf to move should come from behind by someone pushing your calf. Remember, your calf will respond to kindness and praise better than to harsh treatment. When tying your calf, a rope halter is alright if the calf does not struggle too much, in which case, the rope may irritate the bridge of its nose and cause a sore. A strap halter or one with some cushioning is recommended if the calf fights the halter when tied.

After the calf has learned to lead, it is time to begin practicing show ring procedures. Begin starting, stopping, setting up its feet, and always remember to hold the calf's head up. Invite other people to drop by when you are working with your calf to help it get used to having strangers around. They should walk around the animal and touch it as will the judge and others once you arrive at a show.

Exercise and brushing should become a daily routine with you and your calf. This not only helps improve the calf's trained skills, but also helps to strengthen its feet and legs, improves its muscle development, and increases its appetite.

Washing Your Calf



Part of the showmanship competition involves making your calf look it's very best... meaning that he must be clean and well-groomed. Washing and clipping your calf (**fitting**) will make him appear more stylish and attractive in the show ring. We will work on some of the finer details of fitting at our clinics, but you can practice on some of the basics well before show time. Start getting your calf accustomed to being washed a few weeks before the show. Washing your calf can be fun. **But it can also be dangerous. This is not a time for games.** Move slowly, so you do not frighten the calf.

Step 1: Put a nylon halter on your calf, as a rope halter will swell once it gets wet. Tie the calf leaving only a few inches of room on the rope. This will keep the calf from moving around.

Step 2: Fill a wash bucket with water from the hose and add enough livestock soap to form a lather. Use only soap that is recommended for livestock. Do not put the soap directly on the calf as it may irritate the skin and cause dandruff and scaling.

Step 3: Before wetting down the calf use the scotch comb and brush to remove as much of the dirt accumulated on the body of your calf as possible. Turn the hose on medium pressure and use your finger to form a spray or use a spray nozzle on the hose. Starting at the calf's feet, wet his legs all around. Then slowly wet his underline and work up the body toward the topline. Last, wet his head, holding the ears cupped closed with your hand. Do not get water into the calf's ears. If water enters the calf's ear, its ear will hang down. If the water is allowed to remain, there is danger of infection. Once again, use the scotch comb to remove any mud on the calf.

Step 4: Using a sponge or rag, apply soapy water from the wash bucket to the calf and scrub the calf with a rubber brush. Wash the legs and underline as well as the sides and topline. When you wash the head, again, be careful so that you do not get water or soap in his ears.

Step 5: To rinse the calf, work from the top down. First, rinse the head, cupping the ears closed with your hand. Then starting at the topline, rinse the soap completely out of the calf's hair coat. Pay careful attention to this step, since any soap left will cause dandruff.

Step 6: Empty out the wash bucket and rinse it well. Then fill it with clean water and put one capful of fly repellent or livestock dip into the water. Carefully and slowly, pour the dip over the calf's topline, starting at the shoulders and pouring toward the rump. Don't pour this mixture on its head. This will cut down on the number of flies attacking your calf and will help with grooming the hair.

Step 7: The last step is to brush and dry your calf. Using a scotch comb followed by a natural bristle brush, comb the hair on the body and legs with the lay of the hair. Brush or comb until the hair is smooth.

Note: Never wash your calf until several weeks after they are weaned. Getting a young calf wet will put him under stress and he could get sick. Gentle brushing will loosen most of the mud and dirt that accumulates on your calf. When you practice washing, choose a warm, sunny day. Keeping your calf's lounging area clean and dry will prevent him from getting ugly yellow stains on his white patches that are almost impossible to remove.

Beef Showmanship

You will be competing in a Showmanship Contest at the 2012 Cleveland County Fair, showing your steer as a beef animal. The following information, developed by the Extension Service of Mississippi State University, will help you understand the basic concepts. You will have an opportunity to refine these skills at upcoming workshops and clinics. You and your calf will be a team, and he needs training and practice. Therefore, the work you do with your calf at home will pay dividends.

Showmanship is an area over which you have the most control when exhibiting your beef cattle. In showmanship, you are judged on your ability to control and present an animal to bring out its best characteristics. Advanced planning and hard work are important keys to becoming a good exhibitor.

Showing beef cattle generates enthusiasm and competition in the show ring and teaches valuable life skills, which include responsibility, making decisions, learning to win graciously, and to instill character. A good showman has a sense for effectively presenting an animal in competition.

Start Early

Success in beef cattle showmanship must start at home with halter breaking the calf. Properly put a rope halter on the calf, and let the lead rope drag on the ground for 2 to 3 days. This makes the calf aware of the halter. Next, tie the calf for an hour, working up to 3 to 5 hours a day. During this time, brush and talk to your calf. This will assist in calming the calf and allow it to become accustomed to you. In time, the calf will respond to your hand movements with the halter and show stick.

Training a calf to walk, stop, and set up easily takes work and patience. At first, lead the calf to and from feed and water. Later, lead the calf around for short practice sessions to teach it to set up in response to the halter and show stick. Have another person handle the calf while you are at the halter; this trains the calf to remain calm under a judge's close inspection.

Using the Halter

Place the halter on the calf's head with the lead on the left side. Put the cross strap that goes over the nose 2 to 3 inches below the eye. You can adjust rope halters and show halters for proper fit. Do not have the halter so big that the nose-cross piece is down by the mouth.

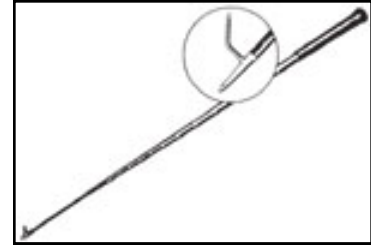
When leading, walk on the calf's left side with the lead in your right hand. Hold your hand 6 to 12 inches from the animal's head on the lead strap (this is near the junction of the chain and leather strap.) **Firmly grip the lead so your thumb is up and toward you with your little finger nearest the chain.** Your wrist is stronger this way and provides better control over the animal.

Measure the lead strap to be just long enough for control (about shoulder width). It must not touch the ground; if the lead can reach the ground, you or the calf may step on it making it awkward to switch hands. To prevent injury, **do not** wrap the halter strap around your hand or fingers.

Using the Show Stick

Four basic uses for the show stick include:

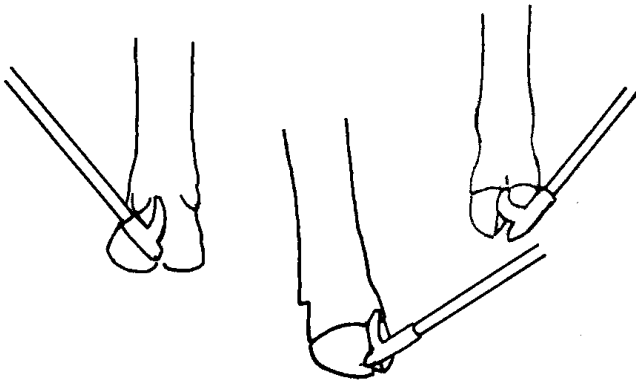
- Assisting in placing the feet.
- Calming and controlling the animal.
- Keeping the top level.
- For scotch-driving the animal.



Show sticks range from 48 to 60 inches long and feature a rubber grip. Cost is less than \$20.

When setting up your calf --

- Switch the lead strap from the right hand to your left hand quickly and smoothly.
- Switch the show stick from the left hand to your right hand.
- Slowly scratch the calf's belly a couple of times to help calm the calf.
- Set the calf's feet in the appropriate position.



Remember. You have two tools in your hands to set the feet -- the lead and the show stick. Set the rear feet first. To move a rear foot back, push backward on the lead and use the show stick to press (do not jab) the soft tissue between the toes in the cleft of the hoof. To move a rear foot forward, pull on the lead and use the show stick to apply pressure under the dew claw (Figure 1).

Figure 1. Positioning the feet with a show stick.

It is easier for the calf to put a foot back than forward. When the rear feet are too close together, apply pressure to the inside of the leg just above the hoof or at the hock, and the calf should stand wider. You can move its front feet by using your boot or show stick to apply pressure on the foot while pushing or pulling with the halter lead in the desired direction you want the foot to move. Younger, less experienced exhibitors are safer using the show stick.

Placement of the feet depends on what view is desired for the judge and what makes the calf look its best. When cattle are lined up side by side in a straight line, the feet should be set on all four corners (bearing a full share of the calf's weight). On this view, the judge is looking at the rear and front of the calf. When the cattle are lined on the profile (head to tail), set the feet as if a professional photographer is taking a picture. Stagger the rear feet so your near side foot is slightly in front of the foot closest to the judge (Figure 2). As the judge moves to the rear of the calf on profile, an experienced exhibitor will again square the feet. As the judge moves back to the side view, profile the rear feet again.

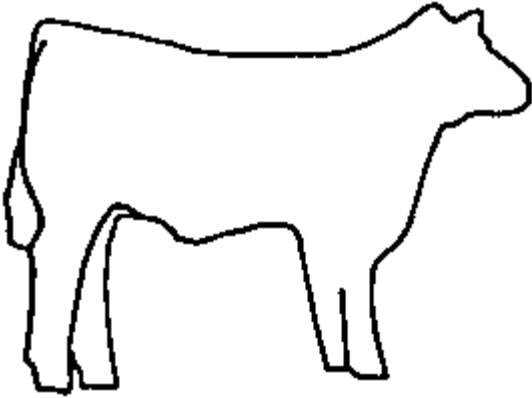


Figure 2. Set up when viewed on the profile.

A heel-to-toe relationship works best when profiling. The heel of one foot is parallel with the toe of the other foot. The front feet are set squared or staggered less than the rear feet. The toe of the front foot away from the judge should be set back half the width of the hoof on the judge's side. By setting the feet in this manner, you give the judge a perception of depth and thickness. It also makes it easier to correct a top line and rump structure.

When using the show stick to correct a top line...

- Apply pressure at the navel or flank with the hook of the show stick if the top is weak and needs to be raised.
- If the rump is steep and the loin is high, apply pressure to this area to bring it down; continue to scratch the calf's belly to keep it calm.

While showing, always keep the point of the show stick down for safety and professional appearance.

Keep the stick in your left hand at the handle or about one-third of the way down when walking. This allows its use as an additional control tool if needed. If the calf is moving too fast, hold the portion of the stick between your left hand and tip or hook end in front of the calf's nose.

To scotch-drive, push forward on the halter with your right hand, and touch the calf with the show stick on its side or rump. This makes the calf think someone is behind it, and it should start to walk. "Scotch-driving" is needed when the calf will not lead or walk and no one is around to help you get started.

Using the Scotch Comb



With haired cattle, carry a scotch comb in your right back pocket or in a comb sheath, with the teeth toward you for safety. Use the scotch comb to groom the hair that becomes messed up from the judge's handling your calf or from another animal bumping into your calf. You can use the corner of the comb to level the loin.

At Show Time

Before the show, walk over the show ring to find any low spots on the surface. This will help you avoid these areas when setting up your calf. If possible, position the calf so the front feet are placed on higher ground than the rear feet.

Dress neatly and look like a livestock exhibitor. Wear leather boots for safety and for appearance reasons. If the calf steps on your foot, its foot will slip off a leather boot more easily than it will slip off a canvas shoe.

Wear nice jeans or slacks; avoid faded blue jeans because they do not "look professional." Wear a button-down or western shirt with a collar; do not wear a T-shirt. Leave hats or caps at the grooming area because they distract the judge's attention from your calf.

Enter the show ring promptly when the class is called. Have the proper equipment and exhibitor number for the calf you are showing. Unless instructed differently, always wear your exhibitor number on the left side so it does not interfere with use of the show stick or leading the calf.

Know where to line up and how the classes will move through the show ring. If you are not in the first class, watch a class or two to learn specific techniques or show style the judge prefers. The advanced exhibitor is able to adapt to any situation and provide the judge with exactly what he/she is looking for on that particular day.

Generally, cattle are lined up side by side to start a class. When pulling into line, look where you will be, and head into that position. **Do not merely follow the person in front of you since this usually ends in an "S" configuration.** You can end up brushing against the calf that was in front of you as you pull into line. When pulling into line, "check" your calf a few feet before reaching your destination to slow the calf. To check the calf, lift up slightly on the halter so the calf knows you are about to stop.

When walking into the ring, line up where the ring steward indicates. If you are third or fourth in the ring, line up even with the other calves, leaving 3 or 4 feet on both sides of your calf. This allows ample room for all exhibitors to set up. Smoothly, yet quickly, get the calf set up with its head high. Be alert, keep a close eye on the calf, keep the feet set square, stay straight in line, and know where the judge is located. If your calf is not set square and the judge is nearby, set up your calf. Most judges will wait for you to present the calf at his best. Always give the judge the view he is seeking. Try not to stand between the judge and the calf.

When it is time to walk the cattle --

- Move as the judge or ring steward instructs. Most likely you will pull the cattle up to the rail, turn left, go three-fourths of a circle, and walk right behind the tail of the other cattle in the side-by-side line.
- Assist the exhibitors in front of you in moving a calf if he/she is having trouble. Tap the calf's rump with your stick, or preferably put your show stick in your right hand and twist the tail of the calf in front of you with your left.
- Let your calf walk out freely. Move at an easy pace, not too slow or too fast.

When it is time to stop on the profile --

- **Stop in a straight line head to tail.** Remember to "check" the calf and then stop by lifting the head. Allow 4 to 6 feet between your calf and the one in front. This allows the judge space to move freely around the cattle and helps to prevent calves from mounting or disturbing others in the line.
- **Position the feet as discussed earlier; keep the top line level and the calf's head up.**
- **Locate the judge and wait calmly.** Do not "saw" your calf in half with rapid stick movement while waiting for the judge. Use slow deliberate strokes with the show stick. Do not make noises or rattle the chain of the halter.

The judge may handle the cattle and ask a few questions. As the judge moves around the calf, move a half step back to allow the judge a full view. Be prepared to answer questions such as weight, birth date, sire, dam, pregnancy status of your heifer, feeding program, parts of the animal, yield grade, quality grade, and the retail cuts of beef.

If your calf has not moved and the judge has gone to the next animal, use the scotch comb or wipe cloth to fix any hair that is messed up. If your calf has moved out of line, pull out in a clockwise circle and bring the calf back into line. Set up and then fix the hair if necessary.

Be alert and aware of the judge. Look for a sign or motion to be pulled into line for placing. This may be another profile or side by side line. As the judge pulls cattle from the profile line, empty spaces occur. As spaces between cattle become empty, move forward in the line.

Remember to allow proper distance between calves, and set the calf up at its best. By moving forward and filling the empty spaces, it becomes easier for the judge to make comparisons. Once pulled into a side by side line, you are nearing the end of the class. Stay alert and set the calf up as positions may continue to be switched.

When turning an animal --

- **Always turn to the right (clockwise) unless the ring steward gives other instructions.** Pushing the calf's head away from you prevents the possibility of the calf stepping on your foot, causing harm to you or the calf. Certain situations may occur in changing placings ([Figure 3](#)). Note that you pass back through the same hole you left, then to the proper position. If positioned up to a rail, do not turn around in the line. Back the calf out by pushing back on the halter with your left hand and applying pressure with your right at the point of the shoulder. Pull into the line at the instructed position. When the judge starts his reasons, the class is over but your job is not. Continue to work hard and display good sportsmanship. Leave the ring in an orderly manner as instructed by the ring steward, and pick up your awards.

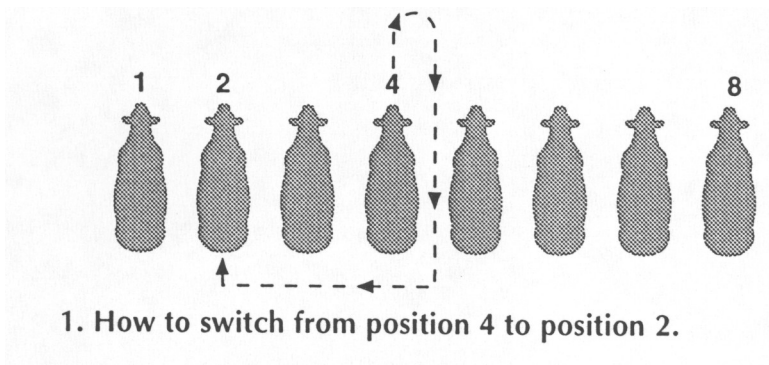
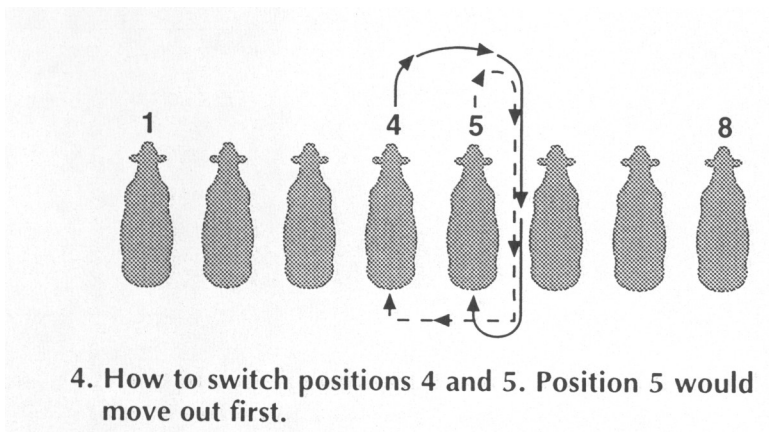
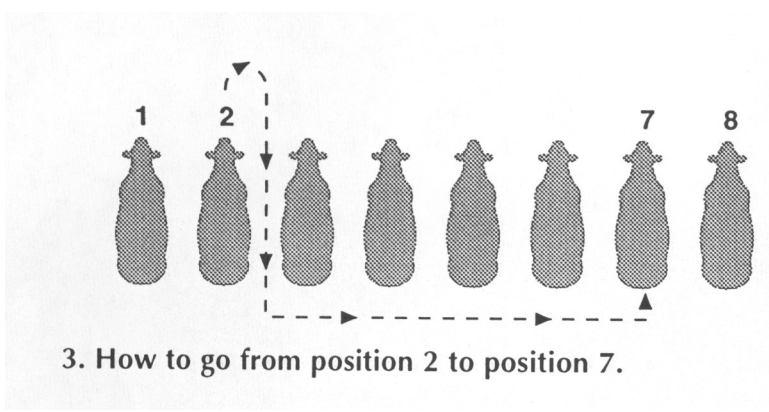
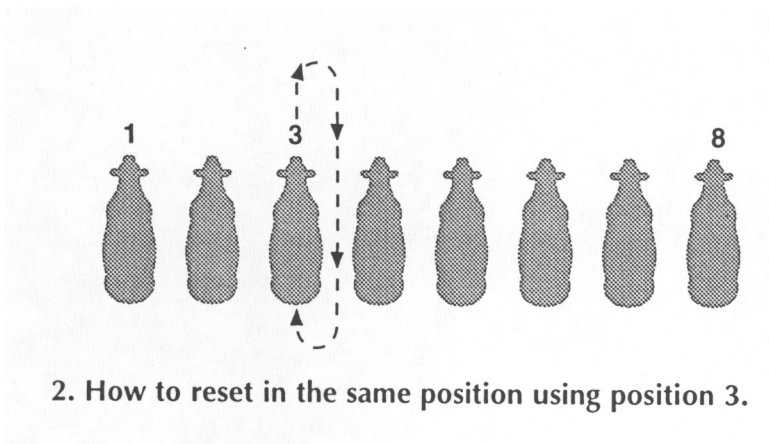


Figure 3. Proper showmanship technique for moving your steer in the show ring.



Courtesy and Sportsmanship

Keep straight lines so the judge can compare all the animals. If you are blocking the view of another animal and have space, move so the judge can see all the animals; however, if you are the one hidden, it is your responsibility to be where the calf can be seen. Do not rely on other exhibitors since they may not have room to move. Pull back in line on the end if this is where space is available.

Avoid bumping, crowding, or hitting other animals. If your calf becomes nervous or unruly, act as a professional. Remain calm, be patient, and never get discouraged or lose your temper.

Congratulate the class winners and those who stood ahead of you, or be a gracious winner and encourage those who stood below. **Remember...** showing is a learning experience. Leave the ring knowing you have given your best effort. Learn from your mistakes, watch other exhibitors, and improve your skills for the next show. You are always a winner just by having participated in a worthwhile learning activity.

Glossary

Bedding– consisting of either: clean shavings, straw, sand or any type clean, dry bedding.

Beef Breed– an adult cow, steer or bull raised for it's meat.

Bovatec®- a feed additive which increases average daily gain and feed efficiency.

Bulls– the male of a bovine animal, capable of reproduction.

Castration– removal of the testicals

Cleaning & Sanitizing Supplies– items such as bleach and detergent used to clean bottles, nipples and buckets

Coccidiosis-caused by a parasite (coccidia). Symptoms are severe diarrhea (bloody or not) loss of appetite, dehydration.

Colostrum– a yellowish liquid, especially rich in immune factors, secreted by the mammary gland of female mammals a few days before and after the birth of their young.

Dairy Breed-any of several breeds of cattle developed primarily for production of milk rather than meat, as Ayshire, Guernsey, Holstein, and Jersey breeds

Dehorning– to prevent the formation or growth of horns in cattle.

Deworming– to cure an animal of worms

Esophageal Feeder– a bag with tube attached used to deliver electrolytes and milk feedings to calves which are too sick to nurse on their own.

Feed Storage– any item with a tight fitting lid such as a plastic trash can, which will hold feed and keep out rodents and pests.

Feed and Water Containers– buckets or feed troughs

First Aid Kit– includes rectal thermometer, scour medication, halter, gauze, etc.

Fitting– the act of preparing a calf for show such as washing, clipping, etc.

Fly Control– methods used to keep flies away from animals or animal containment area.

Heifers– a young cow over one year old that has not produced a calf.

Insecticide Ear Tag– a plastic or rubber tag saturated with insecticide and attached to the ear. Used to keep flies and bugs off cattle.

Internal Parasites– an organism that lives in a different kind of organism (the host) from which it gets some or all of it's nourishment. Generally harmful to the host.

Manure Fork & Wheelbarrow– items used to maintain sanitary stall area for calf.

Milk Bottle or Pail– a container which is used to feed a calf milk replacer.

Milk Replacer– a powdered substance made from milk solids, fats, vitamins and proteins which is mixed with water to feed orphaned animals.

Normal Body Temperature- for calves: between 101.5 and 102.5°F

Omasum- the third stomach of ruminating animals.

Pneumonia– inflammation of the lungs caused by one or more viruses or bacteria.

Polled– genetically hornless

Predators– any animal that lives by preying on other animals.

Reticulum– the second stomach of ruminating animals

Rope Halter– made of a soft nylon rope, used to lead calf

Rumen- the first stomach of ruminating animals.

Rumensin©- prevents and controls coccidiosis in all cattle types

Scours– diarrhea caused by intestinal infection or overfeeding.

Steer– a male bovine that has been castrated

Unpalatable- unpleasant to the taste

Vaccination– inoculation with a vaccine in order to protect against a particular disease.

Wean- to lose the need to nurse or suckle a bottle