



## FEEDING AND RAISING THE SHOW STEER

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**Receiving the Animal:** Find out what the calf was being fed, and blend that diet as at least part of the new diet. Calves will suffer less stress if you reduce their feed and water intake by 1/2-2/3 on the day they are shipped. Another calf of similar age and weight in the pen will help make the new arrival feel more at home. Always make changes in diet ingredients and amounts gradually over time. It typically takes a ruminant animal two weeks to adjust to a diet change.

Initially including at least 30% roughage in the diet can reduce digestive problems. Let them have access to some long stem grass hay. The starter ration may include some molasses, about 1/2 rolled corn, 1/2 rolled or crimped oats plus a protein supplement, vitamins, and minerals.

Calves that have already been weaned and are consuming grain are easier to start up on feed. Calves that have not been weaned or were weaned only recently need to be brought up on feed gradually over a 2 to 3 week time period. You may want to start with 3 to 6 pounds of your grain mix per feeding (6-12 lbs per day). Increase the amount of grain they get by 1/2 a pound per day over the next 2 to 3 weeks.

### Example Starter Ration

Feed	Pounds
Crimped oats	60.0
Cracked or rolled corn	24.5
Protein Pellets (32%)	15.0
Salt/Mineral	.5
Total	100.0

### Feeding Schedule

Week	Lbs/Feeding	Lbs/Day	Amount of Hay
1	3.0-4.5	9.5	1 flake hay
2	4.0-5.0	10.0	1 flake hay
3	5.0-6.0	12.0	1 flake hay

\*The following table was obtained from:

C. L. Fulkerson. Feed A Winner, North American Limousin Foundation.

**Facilities:** The barn or shed where you keep your project need not be elaborate. Provide about 75 square feet of shelter for each calf. If the feed and water troughs are outside the shelter, then 45 square feet per calf is adequate. Usually, a 100 x 200-foot lot is enough exercise space for two calves.

The feed trough should be 6 to 8 inches deep, 12 inches wide and 20 to 24 inches long for each calf that will be eating. The top of the feed trough should be 12 to 20 inches from the ground, depending on the size of the calf. Some exhibitors feel that an excessively high trough will cause a calf to have a low back and making calves eat off the ground will cause the calf to have rough shoulders. The following are some additional specifications:

1. Clean and dry with good drainage.
2. Area should be free of rocks, junk and exposed nails or sharp edges
3. Clean bedding
4. Adequate ventilation
5. Clean feeding area and feed storage area
6. Access to catch pen and head chute
7. Fence of wood planks, metal, cable or woven wire preferable to barbed wire

**Weighing Feed:** One of the most important aspects of feeding animals is how much they eat. Therefore, have some scales so you can weigh the feed you are giving them. This is especially important if you are mixing your own feed. It can be helpful to you to weigh your calf periodically to check his progress.

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**Water:** Clean, fresh water should be available at all times. Dry feed intake is closely associated with how much water they consume. Water sources should be cleaned at least weekly.

**Bunk Management:** The total amount of feed fed per day should be divided into at least 2 meals per day. Feed approximately at 7:00 AM and 6:00 PM. You can feed approximately half their daily allowance of feed in the morning and the other half in the evening. During particularly hot weather, cattle may not feel like eating much during the day. The daily feed allotment can be changed to approximately 40% of the feed fed in the morning and 60% in the evening if daytime feed intake is a problem.

Clean out feed or feces found in the feed bunk prior to feeding. Feed should not be allowed to accumulate from feeding to feeding. Dry matter (hay and grain) intake and performance will decline if this is allowed to occur for very long. Be careful if large accumulations occur because this indicates a decrease in feed intake. Upon cleaning out large accumulations of stale feed, cattle may engorge themselves on the new, fresh feed and some cases of "grain bloat" may occur. The other scenario that may occur is the cattle will engorge themselves on the fresh feed in a short amount of time and "slick" or empty the bunk and not consume the next batch of feed you provide.

**Feeding Concentrates:** An animal that is gaining weight at a moderate rate needs about 1.5% of their body weight in concentrates per day. Rapidly growing cattle, such as steers and bulls can be safely fed up to 2.0-2.25% of their weight in concentrates. Very high grain diets (over 2.75% of body weight) can be detrimental for hair growth. Dusty or moldy feed should not be used. Coughing can sometimes be an indication of dusty feeds. If the problem persists, consider feeding steam flaked or steam rolled grain. Any processing done should not make the grain too fine. If it looks like hog feed, it is ground too fine!

**Energy Feeds:** Corn, oats, barley, (COB) are the main energy sources. Corn and oats are the most widely used in show diets. Oats is normally too expensive to be included in standard diets except for creep diets and starting cattle on feed. However, oats can be a useful supplement to corn for show cattle-type diets.

Many rations will contain molasses. Molasses (approximately 1/2 cup/head/day) may be added to increase the palatability of a ration and reduce dust problems. Water can be added to the molasses to improve its mixing

characteristics. Ideally add wet products to the feed just before feeding or only mix up enough for that day. The goal is to keep the feed fresh, especially during hot weather and not cause a mold problem.

**Protein Needs:** Soybean meal is the most commonly used protein supplement. Another preferred natural protein source is linseed oil meal. Normally, natural protein sources are preferred over those containing non-protein nitrogen (urea or biuret) for show cattle, only.

**Commercial Protein Supplements:** There is something to be said for feeding commercial protein or show supplements versus homemade supplements. They are usually very palatable and contain added vitamins and minerals.

**Minerals:** The minerals you will need to add are salt, calcium, and maybe phosphorus. Show steers rarely need phosphorus but an added calcium source should be considered. A suitable calcium source is feed-grade limestone. A minimum calcium to phosphorus ratio is 1.2:1 but 2:1 or 3:1 are preferable. The higher ratios might be needed when feeding fat sources such as vegetable oil (fat interferes with calcium absorption). Use trace mineral salt to avoid possible deficiencies of other minor minerals. A 50:50 mix of limestone and salt available free choice may be adequate if feed mixing facilities are limiting. Alfalfa meal pellets can be a source of protein and calcium. Commercial feed companies produce complete mineral mixes that are available from your local feed dealers.

**Vitamins:** The major vitamin requirement is for vitamin A. Vitamin A can be provided in the feed or by injection. However, in show steers it is probably preferred to feed vitamins rather than injecting vitamins. Normally vitamin supplements are provided in a vitamin A-D-E complex. Using high quality feeds can reduce some of the concern about the other vitamins.

Make sure that cattle receive 20,000 to 30,000 international units (IU) of vitamin A per head daily. A commercial protein supplement, fortified with vitamins, can reduce the chances of a deficiency. Yeast products can be a good source of B vitamins. B vitamins can be useful during times of stress.

**Feeding Roughage:** Feed at least 4-5 pounds of hay daily. Feeding high quality alfalfa may promote diarrhea. Good quality grass hay will be a better choice or blend 2 pounds of alfalfa with 2 to 3 pounds of grass hay. Wheat bran or dried beet pulp are good feeds for adding bulk to a diet. However neither should be fed at over 20% of the diet.

If a large belly is a problem, reduce the bulk in the diet. Cattle should, however, carry some belly at home to insure adequate growth. Deworming the steer will improve animal performance and efficiency if it has internal parasites.

**Additives:** Feeds high in fat and protein such as milk replacer or linseed oil meal are excellent for promoting hair growth and for adding gloss to the hair. One cup per head per day of milk replacer or linseed oil meal should be adequate. Wheat germ oil (1 tablespoon per head per day) may be added to the diet to give hair shine. Mixing in 1/2 cup of vegetable oil per head per feeding can boost the energy of the diet and also add a shine to the hair coat. **You do not want to use all these products at the same time.** Too much oil may cause diarrhea. Ideally add wet products, such as oil and diluted molasses, to the feed just prior to feeding. Thoroughly mix all ingredients of the concentrate portion of the diet.

**Various Diets:** Many feed companies have complete diets that can be fed to calves at various stages of development. Ideally, work with someone knowledgeable of cattle nutrition to develop a specific diet for your calf with your available feeds.

**Ration Formulation:** Fattening – Feed nutrients not used for maintenance or growth may be used for fattening. Fat stored within the muscles is called marbling. Marbling helps make meat juicy and good tasting. Feeds that are high in carbohydrates and fats are used for fattening. They are less expensive than protein feeds.

**Balancing Rations:** The diet must meet the nutritional needs of the animal. Nutrient allowances figured in balanced rations should not be more than 3% below the animal’s requirement. Diets must include a minimum level of dry matter or the digestive tract will not function properly but it should not exceed above 3% of the recommended level for an animal on full feed.

**Rules of Thumb for Balancing Rations:** Fattening rations for beef should be about 2 to 2.5 percent of the animal’s body weight, fed as air-dry grain and protein supplement. If the ration is calculated on a 100 percent dry matter basis, use 1.8 to 2.25 percent of the animal’s body weight. About 0.5 to 1.0 percent of body weight should be fed as air-dry roughage. On a 100 percent dry matter basis, use 0.45 to 0.9 percent of the animal’s body weight. About one part of the protein supplement should be fed to each eight to twelve parts of grain. On a 100 percent dry matter basis, about 9 to 13.5 percent of the total ration should be roughage. Rations with high grain content give the fastest and most efficient weight gains. Fattening cattle should be fed a mineral supplement. If a high concentrate (grain) ration is fed, a mineral supplement consisting of two parts dicalcium phosphate, two parts limestone, and six parts trace mineralized salt should be fed free choice. Free choice means that the supplement is available at all times to the animal. When feeding a high roughage ration, a mineral supplement consisting of two parts trace mineralized salt and one part dicalcium phosphate should be fed free choice.

**Holding Cattle:** Different livestock shows occur at different times of year. A common comment and question asked is, "My steer is done and the fair is not for another month. How can I hold my steer?" Unfortunately, there is not a good answer for this question. Trying to hold a steer can reduce marbling and increase the incidence of dark cutters (dark color meat). Ideally, work with someone knowledgeable of cattle feeding. Estimate what the finished weight of your calf will be. Set up a diet or diets that produce body weight gains that match the dates when cattle need to be ready. This is basically done by varying the amount of roughage and grain fed during different periods of the feeding program. It is important to calculate you desired Average Daily Gain (ADG). This will help you to feed your animal to achieve a target weight.

Example worksheet for calculating Average Daily Gain ADG.

	Example	Your Herd	-----Notes-----
Target Weight	1,100		
Current weight	850 lbs.		
Total gain needed	250 lbs.		1100 – 850 =
Current date	March 20		
Show Date	July 20		
Length of feeding period	121 days		
Average Daily Gain needed (ADG)	2.1 lbs/day		250 / 121

**Prior to the Show:** About 4-5 days before going to the show, tie your calf up while he eats. The next day, tie him, but instead of letting him eat out of the trough,

put his feed in the feed pan he will use at the show. Continue to feed the calf out of the feed pan, and water him out of a water bucket. The last two feedings before you leave, reduce the amount of feed to 2/3 the normal amount. This will help him travel better and relieve stress during transport.

**Feeding and Watering at the Show:** You should not feed and water your animals immediately upon arrival at the show but rather allow them time to rest. This is particularly true of hauls longer than 1-2 hours.

It is usually recommended to allow cattle only 1/2 to 2/3 of their normal concentrate feed at their first feeding following arrival. You can gradually increase their feed at each feeding. Many people slightly increase the amount of good dry hay at shows as it keeps them on feed better and also keeps their manure firmer. Thus, the animal as well as your stalls will be easier to keep clean at the show.

Water should be limited initially so that the animals will not get sick. Animals may not drink water, which they are not accustomed to. Adding a cup of molasses or 1/2 cup of salt, sugar or jello per five gallons of water might be considered. Ideally, this should be started 5-7 days before you leave for the show.

**If your calf does not eat well, check the following:**

1. Don't bother him while he eats.
2. Adjust the rope length
3. Lack of exercise can decrease a calf's appetite
4. Have you changed his feed?
5. Is he thirsty?

If your calf still refuses to eat, try giving him some hay and water. If your calf refuses to drink, try adding a little molasses to his water. If he goes more than a day without water, put a small handful of salt in his mouth, and give him some water.

1. Feed offered but not cleaned up in 30 minutes should be removed.
2. Feed pans should be cleaned after each feeding.
3. Concentrate should be fed first and then the hay.
4. Some people prefer to feed hay only at night in the tie outs keeping the indoor stall cleaner.
5. Water is usually not offered until after the animals have eaten their morning or evening feeding.
6. One or two flakes of grass hay are usually laid out in front of the tie-outs so animals can eat during the night.
7. Keep on their same feeding schedule as when they were at home.
8. Have a great show and remember the show is just the last thing not the only thing you do with the steer.

**Summary:**

Each animal must be evaluated and treated individually to meet their specific requirements. These recommendations are intended for use as a guide in helping you evaluate your show animal and determine how you will achieve your target weight and show condition. The show animal should be an exciting and rewarding educational experience. Have fun.