

Management of the Junior Market Steer Project

Steven M. Jones
Associate Professor -
Animal Science

Selection

Selecting the market steer prospect is a challenging task because you must combine current industry carcass standards, eye appeal and show ring “trends.” At times in the past, these three criteria have not been in harmony. At present, the cattle that are successful in the show ring will be “packer” acceptable as well.

A good steer prospect will have a high percentage of his weight through his stifle, rump and loin. These are also the body regions of the highest economical value as well. All body parts should blend together smoothly as viewed from the side, and at least half of his height should be in depth of body. This would indicate that the steer is attractive profiling and nicely balanced. Overall balance is appraised by viewing the steer from the side view or three-quarter view and comparing to the ideal steer. He should possess a powerful look with a large volume of muscle. He should not be heavy-fronted, wasty middled, light in the rear quarter or have a short, thick neck. The steer should possess sufficient size and scale to reach optimum market weight of 1,150 to 1,250 pounds by 18 months of age.

Table 1 outlines the optimum and acceptable standards for the modern steer. Be cautious of extreme-framed cattle because they will exceed the desirable market weight when finished to the choice grade. It is impossible for two market steers weighing 1,200 pounds, one of which is 54 inches tall and the other 60 inches tall, to have the same ratio of muscle to bone if they have comparable external fat cover.

Table 1.

OPTIMUM STANDARDS	
➤ Show Weight	1,200 - 1,300
➤ Hip Height	50.0 - 52.0
➤ Fat Cover	0.3 - 0.45 inch
ACCEPTABLE STANDARDS	
➤ Show Weight	1,100 - 1,350
➤ Hip Height	49.5 - 53.5
➤ Fat Cover	0.25 - 0.5 inch

The shorter steer must be heavier muscled since he has a higher muscle-to-bone ratio.

One last and often overlooked point is to select calves that are the correct age for the shows you will be competing in. Many market steer shows require the steers to retain their “baby teeth.” In short, the priority traits a judge will look for are muscle, correctness of finish, balance and correctness of weight.

Facilities

Housing for your calf does not have to be fancy or expensive, just functional. The important point to remember is that the shelter should be dry, well-ventilated and well-drained. A three-sided shed open to the south would be fine. You will need to provide 25 to 35 square feet of resting area per calf and a quarter-acre lot for an exercise area. It is advisable to keep the steer in the barn or shed during the daylight hours and turn him out at night to prevent damage to the hair coat and take advantage of cool nights to stimulate hair growth.

*Arkansas Is
Our Campus*

Visit our web site at:
<http://www.uaex.edu>

Your steer will need feed and water troughs. The feed trough should be placed inside the shelter. Make it a minimum 24 inches wide and 6 inches deep. Allow a minimum of 2 to 2½ linear feet per calf. The feed trough should be 18 to 24 inches above the ground. Hay racks should also be placed under the shelter but in a different location from the feed trough.

The water trough size will depend on how many calves you have. It's important to always keep the water fresh and clean. This means breaking up the ice in the winter, keeping the tank filled in the summer and cleaning the tank thoroughly once a week. A 1,000-pound steer will drink 9 gallons of water per day when the temperature is 50°F and 18 gallons when the temperature is 90°F.

Keep the bedding clean and dry inside the shelter. Many people are using sand as a bedding because it drains well and is easily cooled by lightly wetting it. However, even sand needs to be removed periodically. Clean bedding helps keep parasite populations down and prevents manure and urine stains on the hair coat. Keep the shelter cool in the summer with good ventilation, fans, mist systems or a combination of these.

Nutrition

Feeding the steer may be the single most important aspect of the management program. The genetically and phenotypically superior calf will become average if the nutrition of the individual is less than what is required.

The nutrition program must be carefully planned with some realistic goals. You need to have some general guidelines to decide what is realistic. An analysis of data collected over several years from market steer projects in southern Arkansas gives us a basis for projecting weight gains for market steers to be shown at fall shows. The calves were weighed on a quarterly basis beginning January 1 and ending September 1. This feeding period is 244 days, or four 61-day intervals. Table 2 summarizes the gain for each quarter.

Table 2. Expected Gains for Each Feeding Quarter (Jan. 1 - Sept. 1)

Quarter	Days	ADG	Lbs.	Total
1	61	3.00	183	183
2	61	2.75	168	351
3	61	2.50	153	504
4	61	2.00	120	624

There are two choices of feed types to consider. One is to use commercially prepared feeds. There are many feed companies, and each one has quality feeds that can be used for a market steer project. The second alternative is to mix your own ration or have a feed mill mix a ration designed by you. Each individual needs to analyze his or her options and consider the following: 1) convenience, 2) storage

capacity, 3) number of animals to be fed, 4) cost and 5) knowledge of beef cattle nutrition.

When on full feed, your calf should eat 2½ to 3 pounds of grain per 100 pounds of body weight, along with 3 to 5 pounds of hay. This is on a daily basis. This amount should be spaced into two to four equal feedings per day. Don't forget to increase the amounts as the calf grows. Regularity is important in feeding. Feed at the same time every day.

Health Care

Handle and transport your calf in a manner to keep stress at a minimum. Watch him closely for signs of sickness and parasite infection the first few days. Give him all the clean grass hay or grass-legume hay he will eat for the first three to four days. Also provide plenty of clean, fresh water and a free-choice mineral supplement. A shot of vitamins A, D and E and antibiotic treatment should be helpful if he has been stressed by a long haul. If he has come from a drought-stricken area where the pastures have been brown for several weeks, he may be low in vitamin A.

You can control most common diseases by sanitation and vaccination. Clean, dry lots and bedding keep down flies, lice, grubs and worms because these parasites spend most of their life cycle in wet bedding and manure.

Communicable diseases for which your calf may need to be vaccinated include:

1. Blackleg and malignant edema
2. Shipping fever
3. Infectious bovine rhinotracheitis (IBR) "red nose"
4. Bovine virus diarrhea (BVD)

Foot rot is thought to be caused by bacteria; however, there are indications that viruses may be involved. Foot rot appears to be contagious and often occurs when the skin is cut on the feet and when the feet are wet.

Keeping the stall clean, dry and well-bedded and providing your steer plenty of exercise will help prevent foot rot. Eliminate muddy areas and rocks around water troughs or other areas frequently used by your steer. Antibiotics in the feed, or iodized salt, are often effective. If practical, covering a concrete slab in front of the feed trough or stall door with quick lime may reduce the incidence of the condition. Placing a foot bath of 2 to 5 percent copper sulfate in a doorway or other walk-through area has been helpful.

Bloat may be caused by several things:

- Legume pastures
- Alfalfa or clover hay
- Too finely ground grain
- Sudden change in feeding program

Some cattle are much more susceptible to bloat than others. Replacing part of the alfalfa or clover hay with grass hay will sometimes help. "Chronic bloaters," those that continue to bloat in spite of good

management, should be disposed of rather than run the risk of loss.

Warts detract from the looks of your calf and in severe cases retard growth. This is an infectious condition caused by a virus. Affected animals should be isolated to prevent the spreading of warts to other animals. Warts will often clear up by themselves within time, varying from one to several months. Warts may be surgically removed. A vaccine is available for the prevention and treatment of warts and often hastens their disappearance.

Internal parasites in large concentrations in the gut will cause the calf to have a reduction in weight gain and exhibit a rough and overall unthrifty appearance. In severe cases, the calf may show signs of anemia. Your veterinarian can check fresh manure samples for worm eggs as a guide to the need for treatment.

As a general rule, it is a good idea to worm your calf every 60 to 90 days, alternating dewormers.

External parasites can be controlled with the use of a variety of insecticides. There are several ways to administer the insecticides, such as sprays, dusts and dust bags, back rubbers, pour-ons, feed additives, specially treated ear tags and a treated tape that can be attached to existing ear tags or around the tail just above the switch. To prevent damage to hair coat, do not administer pour-ons close to show.

Halter Training

The first step in training a steer for show is to halter break it. The younger and smaller your steer when you start, the easier the job will be. You start by tying the steer in his stall for a few days. Tie about 18 inches above the ground to something very solid, allowing enough lead for the steer to lie down. Visit him often each day, brush him, pet him, talk to him and he will understand that you are not going to hurt him.

The next training step is to teach your steer to lead. Begin teaching him to lead as soon as he is used to the halter.

After haltering the animal, apply tension to it a couple of times before releasing. Teaching a calf to be responsive with a halter rope makes everything easier. Ask the calf to come forward and if it does, release it. Keep your body in a position so you can turn the animal's head. This will give you leverage over the calf. Do NOT get in a "tug-o-war" contest – the calf will win.

When training a calf to lead, pull on the lead rope and then give slack and allow the calf to move forward. Do not apply continuous pressure. Always pull and then release the pressure as the calf responds. When the animal learns that the rope loosens when it walks, it will lead. Do not try to lead a calf that is not halter broken because this can encourage breakaways.

- Do not tie the calf behind a vehicle and pull.
- Do not hit the calf with any object.
- Do not pull on the rope with hard jerks.
- Do not use an electric prod or hot shot.

After the calf is broke to halter, do not leave the halter on unless the calf is tied or held. The calf must learn that it will be restrained whenever haltered. Always remove the halter each evening. The calf could receive blisters on the head, face and feet from rope burns if the halter remains on all day and night.

You can also lead him to his feed box, water or other places that he likes to go. This will help him learn to lead easily. The correct position for leading your steer is on his left side, about even with his head. Never get in front of him and turn your back on him, especially when you are first training him to lead. It's not a good idea to tie him to a tractor or truck and force him to lead. He can hurt himself if this is done.

In the summer when you are getting ready for the show, leading your calf about a mile daily will give him good exercise and training. Give your calf a chance to exercise every day. This stimulates his appetite, keeps him walking more correctly and keeps him from getting too fat. One way to make him exercise early on is to put the water trough in one end of the pen and the feed box at the other end.

After he is leading well, encourage your friends and visitors to handle him. In fact, it would be to your advantage to practice showing him and let strangers handle him like the judge will do at the fair. This will get your steer accustomed to being handled by strangers, and he will be less likely to raise a fuss on show day.

A radio in the barn soothes the calf and prepares him for the day he leaves home and goes to the fair. Another consideration to prepare him for the fair is adding a little molasses or flavored electrolytes to the drinking water at home a few days prior to leaving for the fair. Do the same for his drinking water at the fair. Thus, if there is much difference in the water, he will not notice it and should continue drinking the water. Use feed and water containers that will be used at the fair a few weeks at home prior to showing. A new water bucket or feed pan may cause your calf to refuse to drink or eat.

Grooming and Fitting

Brushing

Soon after you first get your steer, begin brushing it with a stiff rice root hair brush. This helps gentle the steer and improves his appearance. Brushing briskly all over his body will help free the hair coat of dirt and dandruff. A stiff brush and elbow grease will give a better bloom to the hair coat of your steer than any other thing you can do. The last four to five

weeks before the show, brush your steer daily. The final time you brush, brush the hair up and forward.

Hoof Trimming

Most calves will need their feet trimmed twice or more yearly in order to stand and walk correctly. Trimming the hooves once in the spring and again three to four weeks before the show may be sufficient.

Washing

Frequent washing removes dandruff and keeps the skin and hair clean. During the last month, wash the calf once a week. You might wish to follow these steps in washing:

1. Brush down the calf first to remove loose dirt, manure, etc.
2. Soak calf entirely, beginning with the feet and legs, and then working your way up the body of the calf, being careful to keep water out of ears. This will slowly accustom the calf to the water without exciting him.
3. Use low water pressure.
4. Add soap or detergent to bucketful of clean water.
5. Apply soapy water to wet calf.
6. Scrub animal thoroughly, working up a good lather with a scrub or grooming brush.
7. Be sure to clean all parts of the calf, paying particular attention to manure stains.
8. Rinse calf thoroughly to remove all traces of soap.
9. Three tablespoons of vinegar in one gallon of water as a final rinse will cut soap film.
10. Use back of the scotch comb to scrape off excess water.

Use the scotch comb to comb the hair up and forward in the same motion. Comb the hair this way all over the calf. Use an electric blower to blow the calf completely dry. Hold the dryer mouth next to the base of the hair; this will allow it to dry in the position you desire. Work in patches, particularly in the areas you wish to appear heavier or thicker. Do this religiously after every washing and soon you will have the coat trained the way you want.

Showing Your Calf

Remember that judges watch the cattle as they come into the show ring, and the first impression is very important. Lead your calf from the left side with

the strap in your right hand about 12 inches from the calf's head. Walk at a moderate pace and watch for instruction from the judge or ringmaster.

When you stop your calf, take the strap in your left hand and set the calf up carefully with a leg under each corner. Of course, you should have trained the steer at home and know how you can "set him up" the best way. Generally, it is better to set the hind feet first. To get him to move his foot forward, put the show stick behind his dewclaws and pull lightly. To get him to move his foot backward, press the stick between the toes in the cleft of his foot. Try to set your calf up where his front legs will be on a little higher ground than his hind legs.

Keep the calf's head up and his back straight. A firm pressure with the show stick near the navel will help keep a weak-topped calf's back straighter. Pinch down calves with high loin to straighten their tops. You can make "cow-hocked" calves look straight by pulling out on hocks with your hand. Talk to your steer to help calm him and to get his ears to come forward. This helps in his attractiveness as the judge views him from the side.

Watch the judge carefully when he handles your calf. If your calf is slightly fat or too soft, turn his head to the side away from the judge. If your calf is too bare, turn his head to the side toward the judge. After the judge handles your calf, comb the hair up where he touched him. Don't block the judge's view of your calf; remember that the calf is being judged, not you. A good showman moves quietly and doesn't draw attention.

Allow your calf to "stand at ease" if you are in a big class and the judge is working at the other end of the ring. Scratch him with the show stick and let him rest until the judge starts back to your end of the ring.

Keep one eye on the judge and the other on your calf. When the judge handles your calf, be alert and take a firm grasp on the halter. Don't shake the lead strap and chain, but look at the judge with calmness. Be relaxed and show confidence that your calf will win. Above all, be courteous to show officials, the judge and other exhibitors. Good sportsmanship is as important as good showmanship. If you have learned your showmanship lessons well, you will win without bragging and lose without complaining.

Acknowledgment is given to Gerald Crossland, former county Extension agent - staff chair, who was an original contributing author of this publication.

Printed by University of Arkansas Cooperative Extension Service Printing Services.

STEVEN M. JONES is associate professor - animal science, with the University of Arkansas Division of Agriculture, Department of Animal Science, Little Rock.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director, Cooperative Extension Service, University of Arkansas. The Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.