

Fundamentals of Evaluating Market Steers

By Brandon Callis and Jake Franke

Selection Criteria (in order of importance):

1. Expected Carcass Value
 - a. Muscle Content
 - b. Optimal degree of finish
2. Feed-Ability
3. Skeletal Correctness
4. Balance/Proportional

Introduction

Market steers that are carcass oriented (muscular and optimally finished) plus supported with a sound, and correctly balanced skeletal design will be class-winning or top pair candidates. Steers that have problems/faults (i.e. light muscled, over/under finished, poorly structured, or poorly balanced), depending on the severity of the problem, should be considered for the bottom pair or last.

Expected Carcass Value

In livestock evaluation, the term "market" refers to an animal whose sole purpose is to be taken to a terminal weight where muscle and fat are acquired at optimal levels to be suitable for consumer consumption. A market steer's ability to effectively combine meat animal shape with an appropriate amount of fat cover (finish) is correlated to his potential value from a quality and yield grade standpoint. Therefore, the top priority in placing a market steer class is to ensure your winner and top pair brings forth carcass merit. Areas to evaluate muscle are down the top (behind their shoulders, over their rib and loin) and from behind (hip, round, lower quarter, and stifle). One important fact to always keep in mind is the true shape of muscle...muscle is round, not flat. A truly muscular steer will open with more width behind their shoulder and continue with the same shape and width over their rib and loin. From behind, a heavy muscled steer will be wide pinned, display expression of muscle to their round, lower

quarter, and stifle. When evaluating the finish of a steer, one must take into consideration that market cattle put on fat from front to rear and top to bottom. Ideally market steers should possess somewhere between 0.3 and 0.5 inches of fat thickness over their 12th and 13th ribs. Hopefully at the mean (0.4) of the range, cattle have the opportunity to reach the Choice grade; however, it is important to remember that fat thickness and marbling are not exactly correlated. Genetics of the animal play an important role in carcass quality. To learn how to properly handle a market steer, please see "How to properly handle a market steer" extension publication.

Feed Ability

We refer to this term as the ease at which a market steer gains weight and accumulates finish and muscle. Evaluating feed ability occurs at different viewpoints: from the profile (depth of body), from the front (chest width), and at a $\frac{3}{4}$ rear view (rib shape). From the side, steers need to display a deep rib design that is uniform from chest to flank. Cattle also need to be optimally wide chested and come out of their spine with spring and outward curvature to their rib cage, both of which facilitate weight gain and, in turn, fat deposition. We consider flat, shallow ribbed cattle as "hard doing" or "hard feeding" because, typically, this type has proven to limit a steer's finishing ability.

Skeletal Correctness

We like evaluating structure from the ground up because sound, functional cattle must start with a solid foundation. The foot of a steer needs to be optimally sized and uniform in its shape and size. Cattle need to stand square at their corners with a correct, 45° angle to their pasterns. Cattle also need to possess a functional set to their hock to enable flexibility out of their rear skeleton. Cattle without an ample amount of set, while at times, appearing attractive, will endure less

longevity and more structure problems. Whereas steers with an extra set, might not view as attractive, will still move with more ease and be deemed more functional. The hip of a correctly structured steer should be long and level from hooks to pins, allowing for a naturally long and correct stride (free of them getting underneath themselves). The front structure of a steer needs to include a shoulder set that offers a 45° angle, and one that is not too big or coarse which can limit their movement. Correctly structured steers should also be laid back (backward set) in their knee, and have cushion (45°) to their pastern.

Balance/Proportional

A correctly balanced steer is one that is built proportionally. The areas to view balance are: length and levelness of their top line and hip, uniformity of body

depth, how smooth pattern a steer blends his different body parts together, and how neat/attractive they are through their front end. When we talk about proportion this means an animal should be equal on both ends. A steer that is heavy muscled that is well balanced will display some expression of muscle in their shoulder and this in turn will make them appear somewhat big shouldered, but this is what we consider a proportional steer. When breaking down balance a steer's neck should come out of the top of their shoulder blade, there should be a smooth transition from their shoulder into their top line. The top line should be strong and level while feeding into a stout hip that is also level and wide. A good structured steer will most likely be nicely balanced since a correct skeletal built is considered essential for a steer to be good balanced.

Produced by the TAMU Department of Animal Science, The Texas A&M University System
Additional information on animal science topics can be found on the Web at <http://animalscience.tamu.edu>.

Educational programs of the Texas AgriLife Extension Service are open to all people without regard to socioeconomic level, race, color, sex, disability, religion, age, or national origin. Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Edward G. Smith, Director, Texas AgriLife Extension Service, The Texas A&M System.