

# Training Manual

for

## USDA Standards for Grading Slaughter Animals



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Based on Fred L. Williams, Jr.'s  
**A Notebook of Ramblings about Livestock Evaluation and Grading**  
by Fred L. Williams, Jr. (1991)

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# USDA FEEDER CATTLE GRADES

## 1) Value Determining Factors

- i) Sex
- ii) Frame
- iii) Weight
- iv) Condition
- v) Muscling
- vi) Background
- vii) Color
- viii) Horns?
- ix) Fill
- x) Personal Preference
- xi) Vaccinations
- xii) Breed

## 2) U.S. Standards for grades of Feeder Cattle

The October 1, 2000, revision of the U.S. Standards for Grades of Feeder Cattle reflects changes in the genetic composition, production, marketing and management of beef cattle since the 1979 grade standards were implemented. The updated frame size and muscle thickness grades more accurately reflect the value of today's feeder cattle.

The standards describe the various types of feeder cattle being produced and are used as a basis for Federal-State Livestock market reporting and as a common trade language between buyers and sellers. They are a tool for penning cattle at sales where feeder cattle are officially graded and ownership commingled. They provide guidelines for better planning of breeding, management and marketing programs. The feeder cattle grades continue to be based on evaluating differences in frame size and muscle thickness – two of the most important genetic factors affecting merit (value) in feeder cattle.

Frame size is related to the weight at which, under normal feeding and management practices, an animal will produce a carcass that will grade Choice. Large frame animals require a longer time in the feedlot to reach a given grade and will weigh more than a small-framed animal would weigh at the same grade. Thickness is related to muscle to bone ratio and at a given degree of fatness to carcass yield grade. Thicker muscled animals will have more lean meat. The Feeder Cattle Standards recognize three frame size grades and four muscle thickness grades.

In addition to twelve combinations (3 frame size and 4 muscle thickness) of Feeder Cattle Grades for thrifty animals, an Inferior grade exists for unthrifty animals. Inferior grade includes feeder cattle, which are unthrifty because of mismanagement, disease, parasitism, or lack of feed. An animal

that grades Inferior could qualify for a muscle thickness and frame size grade at a later date provided the unthrifty condition is corrected.

“Double-muscled” animals are included in the Inferior grade. Although such animals have a superior amount of muscle, they are graded U.S. Inferior because of their inability to produce carcasses with enough marbling to grade Choice.

### 3) Frame Size Standards

**Large Frame (L):** Feeder cattle, which possess typical minimum qualifications for this grade, are thrifty, have large frames, and are tall and long bodied for their age. Steers and heifers would not be expected to produce U.S. Choice carcasses (about 0.50 inch (1.3 cm) fat at twelfth rib) until their live weights exceed 1250 pounds (567 kg) and 1150 pounds (522 kg), respectively.

**Medium Frame (M):** Feeder cattle, which possess typical minimum qualifications for this grade, are thrifty, have slightly large frames, and are slightly tall and slightly long bodied for their age. Steers and heifers would be expected to produce U.S. Choice carcasses (about 0.50 inch (1.3 cm) fat at twelfth rib) at live weights of 1100 to 1250 pounds (499 to 567 kg) and 1000 to 1150 pounds (454 to 522 kg), respectively.

**Small Frame (S):** Feeder cattle included in this grade are thrifty, have small frames, and are shorter bodied and not as tall as specified as the minimum for the Medium Frame grade. Steers and heifers would be expected to produce U.S. Choice carcasses (about 0.50 inch (1.3 cm) fat at twelfth rib) at live weights of less than 1100 pounds (499 kg) and 1000 pounds (454 kg), respectively.

### 4) Muscle Thickness Standards

**No. 1:** Feeder cattle, which possess minimum qualifications for this grade usually display, predominate beef breeding. They must be thrifty and moderately thick throughout. They are moderately thick and full in the forearm and gaskin, showing a rounded appearance through the back and loin with moderate width between the legs, both front and rear. Cattle show this thickness with a slightly thick covering of fat; however, cattle eligible for this grade may carry varying degrees of fat.

**No. 2:** Feeder cattle, which possess minimum qualifications for this grade usually, show a high proportion of beef breeding and slight dairy breeding may be detected. They must be thrifty and tend to be slightly thick throughout. They tend to be slightly thick and full in the forearm and gaskin, showing a rounded appearance through the back and loin with slight width between the legs, both front and rear. Cattle show this thickness with a slightly thin covering of fat; however, cattle eligible for this grade may carry varying degrees of fat.

**No. 3:** Feeder cattle, which possess minimum qualifications for this grade, are thrifty and thin through the forequarter and the middle part of the rounds. The forearm and gaskin are thin and the back and loin have a sunken appearance. The legs are set close together, both front and rear. Cattle show this

narrowness with a slightly thin covering of fat; however, cattle eligible for this grade may show varying degrees of fat.

**No. 4:** Feeder cattle included in this grade are thrifty animals, which have less thickness than the minimum requirements specified for the No. 3 grade.

(Metric numbers are approximate due to rounding)

### 5) Large Framed Cattle

- i) Steer > 1250 lbs.
- ii) Heifer > 1150 lbs.



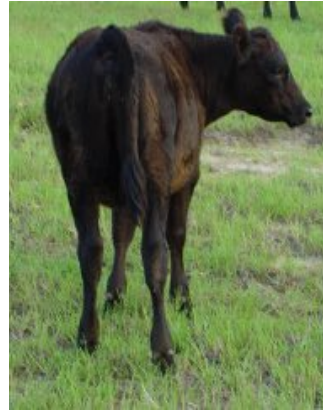
### 6) Medium Framed Cattle

- i) Steer 1100-1250 lbs.
- ii) Heifer 1000-1150 lbs.



## 7) Small Framed Cattle

- i) Steer < 1100 lbs.
- ii) Heifer < 1000 lbs.



## 8) U. S. Inferior

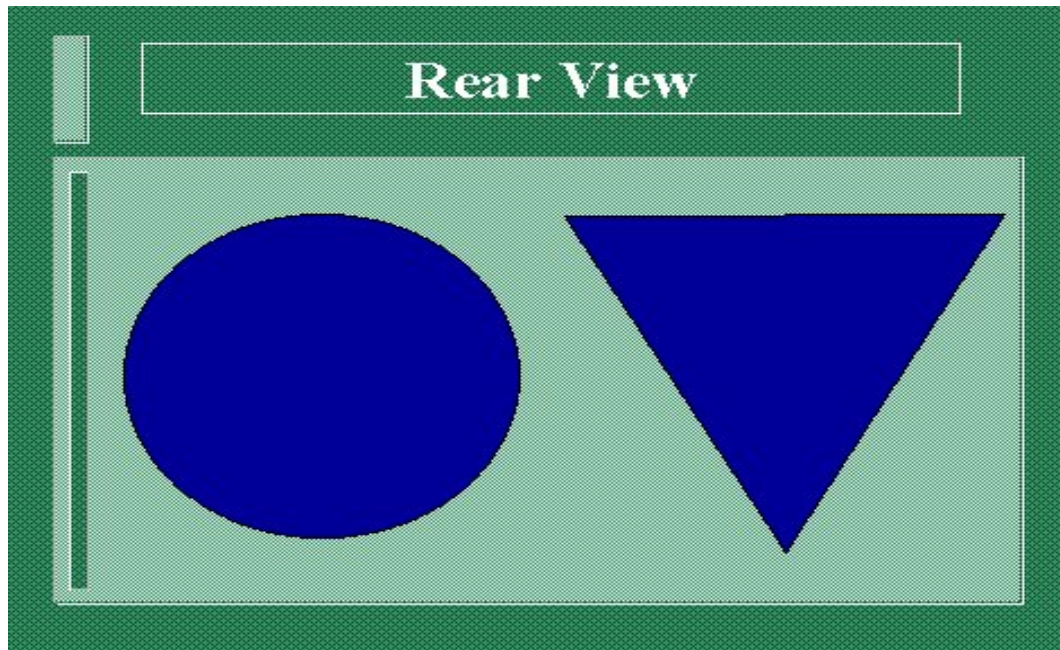
Cattle which suffer from disease, parasitism, severe emaciation, or any condition that must be corrected before they can be expected to perform normally, are considered unthrifty and graded U.S. Inferior.

Double-muscled cattle are also graded U.S. Inferior because they do not deposit marbling normally.



## 9) Muscle Thickness

(The basic shape of the hindquarter (round) as viewed from behind)



No. 1 Muscling

No. 3 Muscling





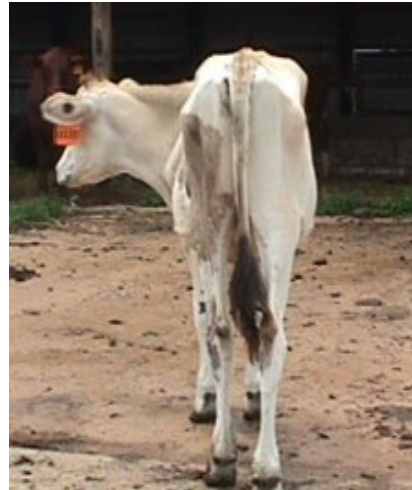
No. 1 Muscling



No. 2 Muscling



No. 3 Muscling



No. 4 Muscling

## 10) Flesh

Flesh can alter the appearance and shape of the animal's conformation. Therefore a flesh score is needed to sort these cattle into uniform groups.

### FLESH

<u>SCORE</u>	<u>DESCRIPTION</u>
1	
2	Thin
3	
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4	
5	Average
6	
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7	
8	Fleshy
9	