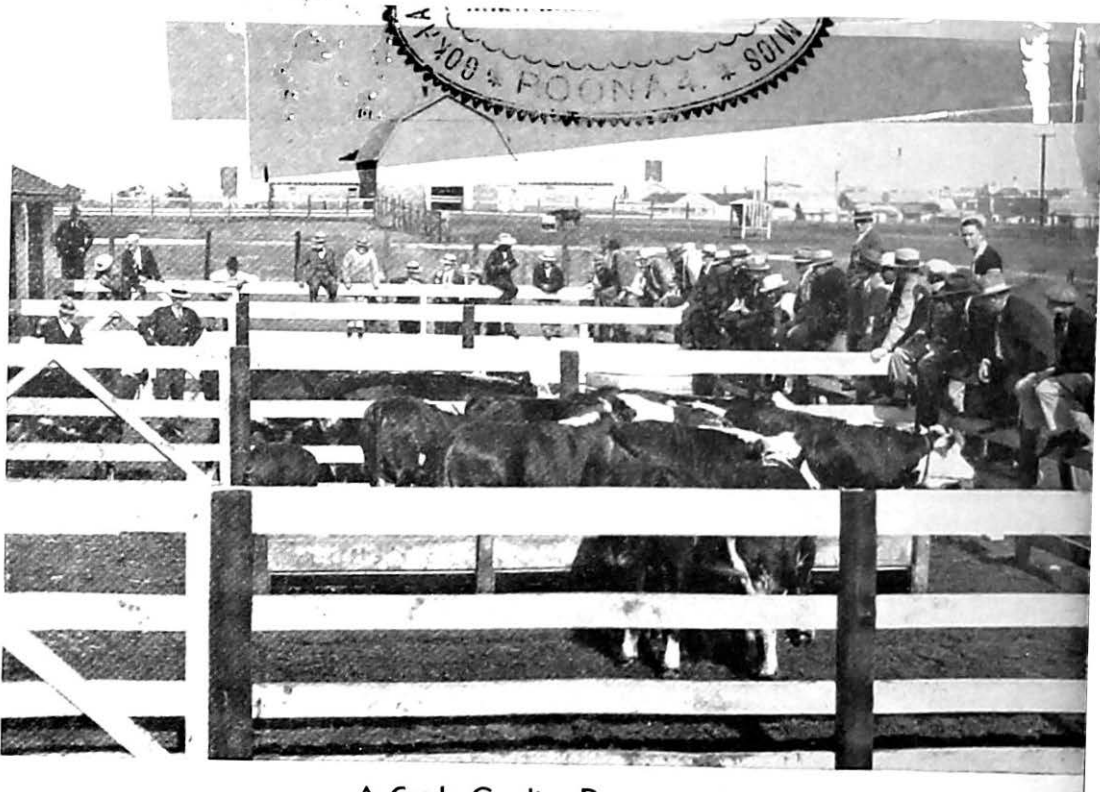


Teaching the Grading
Of feeder and Stocker
steers in Vocational
Agricultural classes



A Cattle Grading Demonstration

TEACHING THE GRADING
OF FEEDER AND STOCKER
STEERS IN VOCATIONAL
AGRICULTURE CLASSES



Prepared cooperatively by
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FOREWORD

Familiarity on the part of producers of agricultural products with market standards which have been established for their products is becoming increasingly important.

The entire livestock industry, for example, would be greatly benefited if livestock producers, distributors, and marketing agencies were to make a more extensive use of market classes and grades of livestock.

Beef cattle hold an important place in the livestock industry. Both present and prospective farmers interested in beef production, therefore, may well devote time to a study of grades and grading, so that they may be able to interpret market reports more accurately and to discern and follow more closely changes in market demand. With this knowledge and information at their command they will be better able to produce what the market wants and to dispose of what they produce at the most profitable time and place.

The subject-matter contained in this leaflet is designed to assist teachers of vocational agriculture in training present and prospective farmers in the job of grading feeder and stocker steers and in similar jobs. The manuscript for the leaflet was prepared under the direction of J. A. Linke, Chief of the Agricultural Education Service, Office of Education, by W. A. Ross, Subject-Matter Specialist in Agricultural Education, with the advice of M. T. Foster, Associate Marketing Specialist, Agricultural Marketing Service, Division of Livestock, Meats, and Wool, Bureau of Agricultural Economics, United States Department of Agriculture. All photographs used are by courtesy of the United States Department of Agriculture.

J. C. WRIGHT,
Assistant Commissioner for Vocational Education.

TEACHING THE GRADING OF FEEDER AND STOCKER STEERS IN VOCATIONAL AGRICULTURE CLASSES

INTRODUCTORY STATEMENT

THE material in this leaflet was prepared to assist teachers of vocational agriculture in training present and prospective farmers to grade feeder and stocker steers according to established standards. Many students of vocational agriculture include beef production as one of the enterprises in their programs of supervised farming, and it is important that they know how to buy feeders and stockers wisely, according to grade, as well as how to produce and market such animals. This leaflet, therefore, includes: (1) Material illustrating the market classes and grades of feeder steers; (2) an analysis of operative training content for the job; (3) certain interpretive science and related information of value in connection with the instruction; (4) a suggested teaching plan; and (5) a list of references for use in connection with the instruction offered.

It is suggested that the teacher familiarize himself with the analysis of training content, that he know the specifications for the standard grades of feeder and stocker steers, and that he be able to demonstrate the sorting and grading process; also, that he be able to interest the pupil in the job, make a systematic presentation of each lesson, and explain the reasons for the practices followed with the aid of the suggested lesson plan, and the interpretive science and related information.

The suggested teaching plan is designed to fit a normal teaching situation in a beef-producing locality, but should be adapted to fit local conditions. Other suggested beef-grading jobs which can be handled in a similar manner are grading feeder and stocker heifers, grading feeder and stocker cows, grading slaughter steers, grading slaughter heifers, and grading slaughter cows.

The following schedule as well as figures 1, 2, 3, 4, 5, and 6, will help the learner to visualize feeder and stocker cattle classification and grade.

FEEDER AND STOCKER CATTLE CLASSIFICATION AND GRADES¹

| Class | Age groups | Grade |
|--------------|----------------------------|---|
| Steers----- | Calves----- | { Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. ² Inferior or No. 5. |
| | Yearlings----- | { Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. ² Inferior or No. 5. |
| | 2-year-olds and older----- | { Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. ² Inferior or No. 5. |
| Heifers----- | Calves----- | { Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. ² Inferior or No. 5. |
| | Yearlings----- | { Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. ² Inferior or No. 5. |
| | 2-year olds----- | { Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. ² Inferior or No. 5. |
| Cows----- | All ages----- | { Fancy or No. A1. Choice or No. 1. Good or No. 2. Medium or No. 3. Common or No. 4. ² Inferior or No. 5. |

¹Adapted from page 5, Circular 505 "Market Classes and Grades of Feeder Cattle", United States Department of Agriculture.

² Formerly designated as plain.

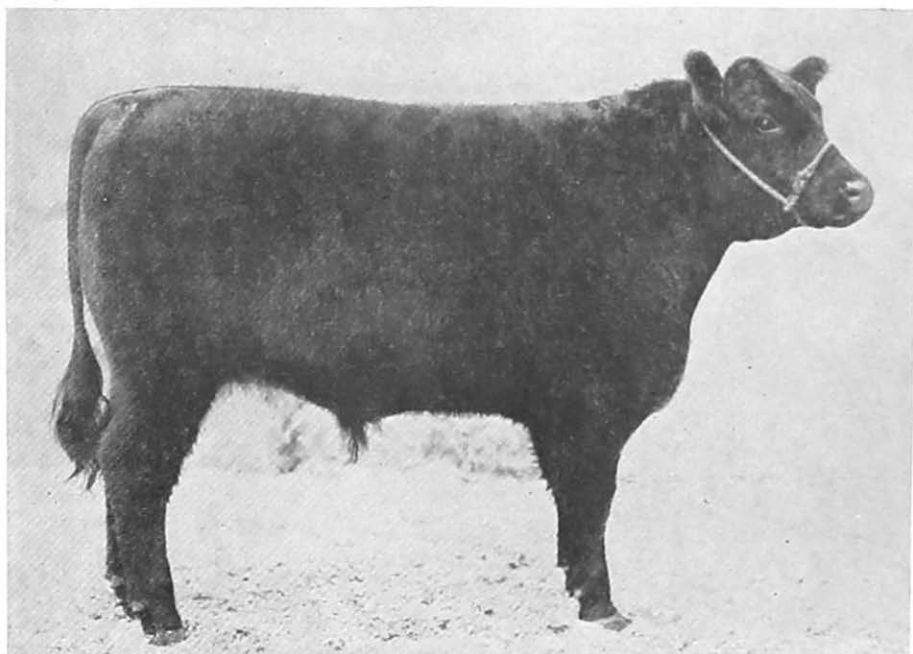


Figure 1.—Fancy or No. A1 grade feeder steer.

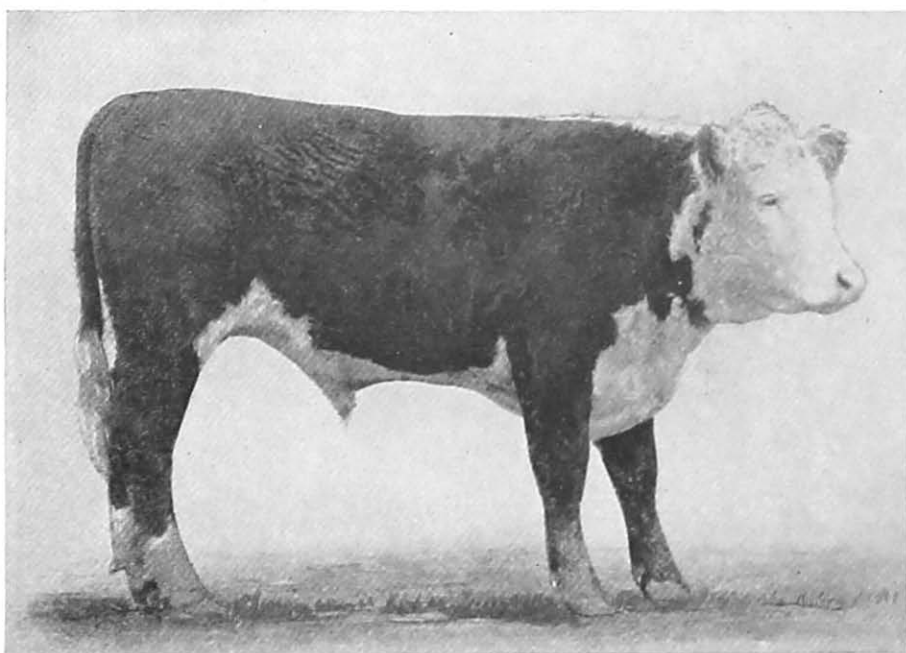


Figure 2.—Choice or No. 1 grade feeder steer.

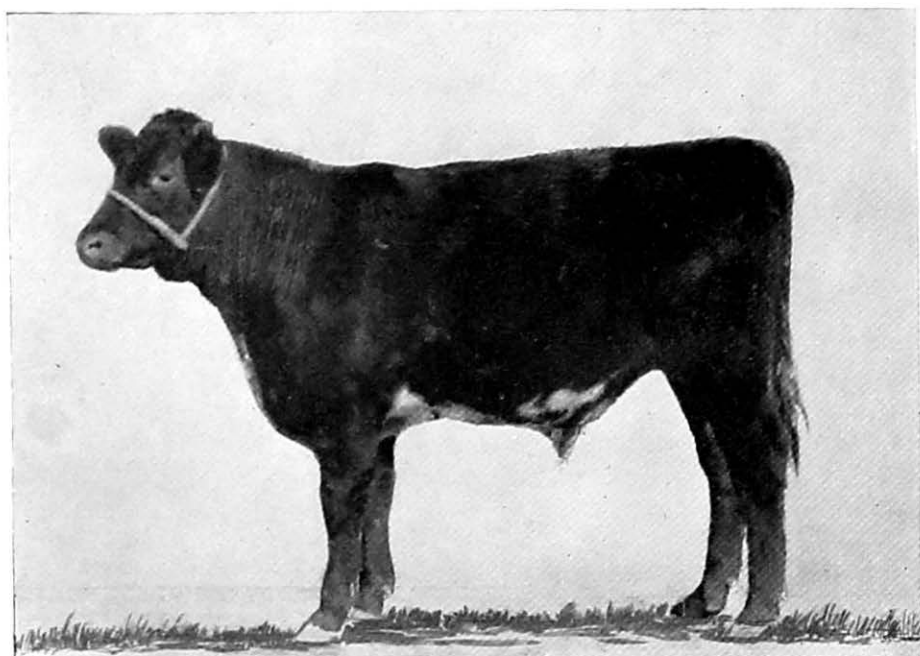


Figure 3.—Good or No. 2 grade feeder steer.

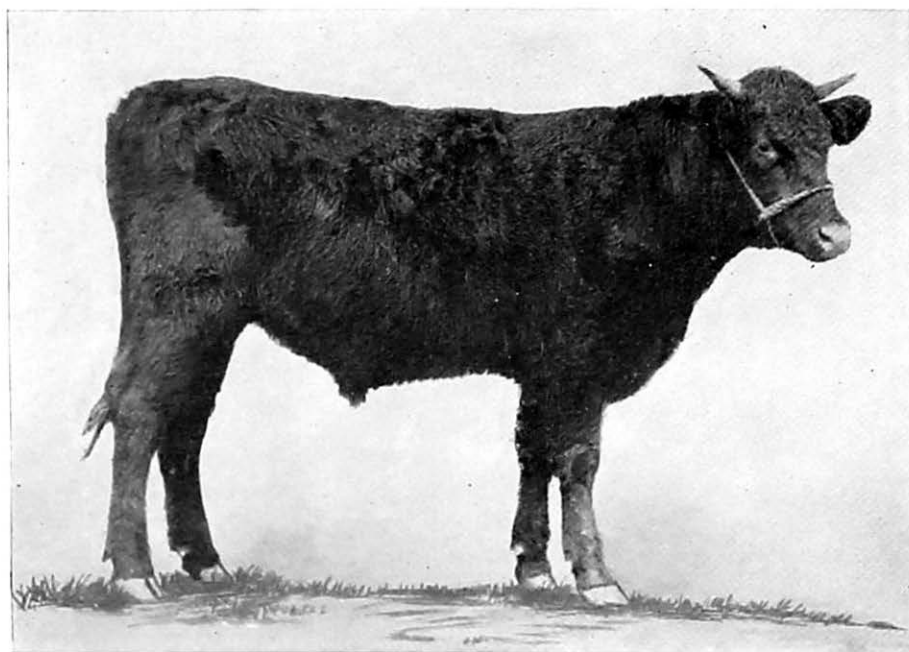


Figure 4.—Medium or No. 3 grade feeder steer.

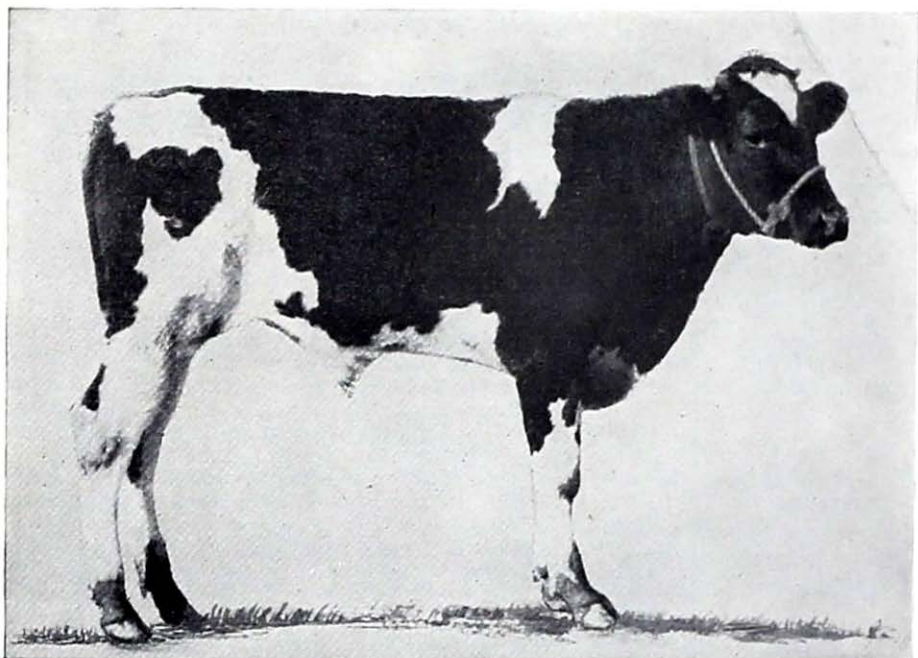


Figure 5.—Common or No. 4 grade feeder steer.

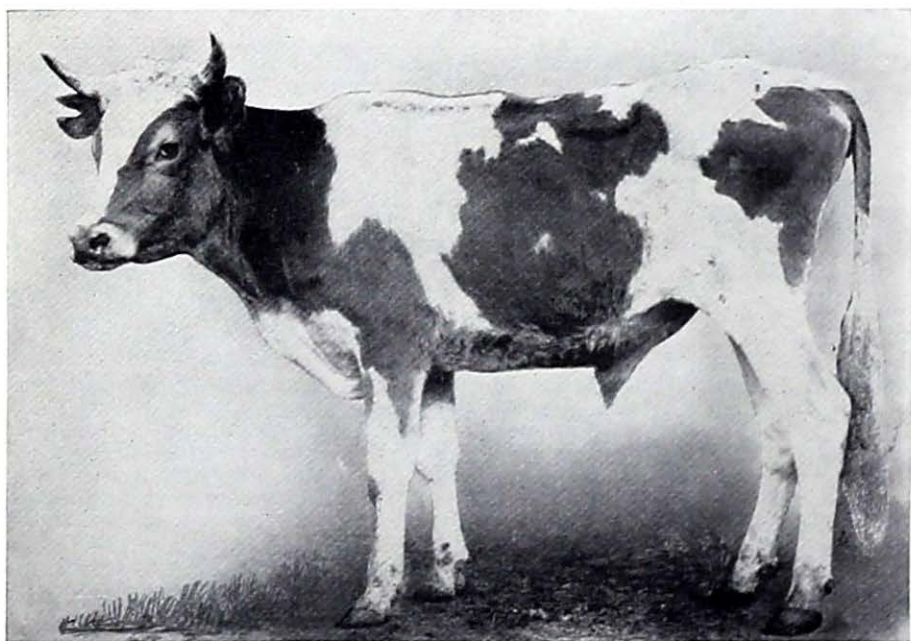


Figure 6.—Inferior or No. 5 grade feeder steer.

ANALYSIS OF THE JOB

The following analysis of the operations involved in teaching the grading of feeder and stocker steers, and the standard or accepted practice followed in each of these operations will enable the vocational agriculture teacher to plan his course of instruction or teaching procedure in advance:

| Operations | Standard or accepted practice |
|---------------------------------|--|
| 1. Size up steers as a bunch. | Have steers in convenient yards or corral equipped, if possible, with adjacent holding pens. While cattle are quieting down observe them from a distance, noting variations in conformation, finish, condition of flesh, and quality. Try to determine the approximate grade into which most of the steers in the bunch seem to fall. |
| 2. Sort steers into groups. | Proceed quietly to sort the steers into groups which include animals having the same general appearance, characteristics, and condition. Sort out the poorest steers first, "cutting" them into one of the holding pens. While doing this watch for individuals to include in a "top" group and "cut" them into another holding pen. Keep in mind the principal idea is to get as near as possible uniformity in size, weight, conformation, condition of flesh, quality, and color in each of the sorted groups. The remaining steers will usually show rather slight variations from the average; they will likely run fairly even. Ordinarily they show sufficient difference to be sorted into two groups. Look first for those showing some distinctive lack of beef type and then for those that show slightly higher quality. "Cut" these groups into separate pens. |
| 3. Check grouping of steers. | Observe closely the individual animals that are now included in each of the sorted groups. Note whether any animals appear to be in the wrong group. Re-sort groups if necessary to get uniformity. |
| 4. Grade each group of steers. | Determine the grade of the poorest group of steers first, then determine the grade of the top group. Avoid designating the top group as "Fancy, No. A1", or "Choice, No. 1", unless they actually grade as such. This applies also to designating the poorest group as "Inferior or No. 5." Size up each group of steers against the specifications established for the grade which it seems to approach. Handle each group in a similar manner. Take into consideration the variation and individuality of the animals. If steers are of mixed or nondescript breeding they may show extremely wide variation in conformation. |
| 5. Check grading of each group. | Using the simplified chart which was developed by the United States Department of Agriculture for the grading of feeder and stocker steers, check the grades assigned to each group of steers: Taking the first item listed at the left-hand side of the simplified chart, apply the descriptive terms shown opposite this item to the animals under consideration. Decide upon the term which fits the animals the closest and then indicate with a pencil check whether they fall in the "high," "average" or "low" third of that grade; proceed in a similar manner with the other items on the grading chart. To arrive at the final grade for the animals, review the position of the check marks opposite the various items, carefully weighing those referring to the more important beef-producing characteristics, and then designate the final grade of the group in the space provided. Regrade groups and recheck, if necessary. |

Livestock, as sold on the various markets from day to day, shows considerable variation in physical characteristics. Differences in characteristics and degrees of variation are reflected in a wide range of market prices.

Generally speaking, trading in beef cattle is carried on to secure them for one of four purposes: (1) For slaughter, (2) for feeders, (3) for stockers, and (4) for breeding. On certain large markets, also, some beef cattle are traded for milk-production purposes, but this practice is relatively unimportant due to the fact that eventually practically all beef cattle go to the butcher's block.

Beef cattle are bought and sold on the basis of apparent value for one of the purposes just mentioned. Experience has proven that the degree of value and, therefore, the trading value possessed by beef cattle for a specific purpose depends upon: (1) Sex condition, (2) age, (3) weight, (4) conformation, (5) finish, and (6) quality.

Slaughter cattle are defined as those usually over 6 months of age, "which are bought and sold for immediate slaughter." Such animals yield beef along with certain edible and nonedible by products.

Feeder cattle are defined as "those which lack sufficient finish to produce the highest grades of meat but which show evidences of ability to take on additional flesh and fat economically, most of the gain resulting from additional fat or finish rather than growth."

Stocker cattle are defined as "those which not only lack sufficient finish to produce the highest grades of meat, but are also usually immature and therefore capable of material additional growth as well as the acquisition of additional finish."

From the foregoing definitions, it is evident that there is a rather fine distinction between feeder and stocker cattle, which accounts for the reason they are often classified together. It is true that feeder cattle sometimes sell as stockers and stockers as feeders, depending on the buyer and the conditions or circumstances in which he finds himself rather than on a strict adherence to a standard classification. Maturity, however, is the main point of distinction between feeder and stocker cattle.

As cattle approach maturity their rate of growth decreases and their ability to take on flesh and fat increases. Concentrate feeds which produce fat are, therefore, effective with beef animals in the "feeder" stage of development; hence, feeders or beef animals 6 to 18 months of age are practical for utilizing fattening feeds preparatory to going on the market as slaughter stock. Less mature animals still capable of making considerable growth—stockers—are more practical for utilizing the rough, coarse, growthy feeds rather than fattening feeds. The progression is stockers to feeders to fat stock.

Experience has shown that there is a rather close correlation between certain physical characteristics, such as sex condition, age, finish, weight, and conformation in live cattle, and the quantity and quality of meat obtained from the carcass. Market prices vary, therefore, according to indications of what the animals will yield when slaughtered, expressed in terms of market classes and grades which are the product of experience.

As an animal grows and develops certain bodily changes take place; these changes affect both the physical appearance and the chemical composition of the body. Sex condition, for example, is known to have a noticeable effect in the shape of the body. This can be seen by comparing the body of a bull, a stag, a steer, a cow, and a heifer. It is also a well-known fact that muscular development increases up to maturity and then decreases with advancing age; muscular development in young animals is expressed in growth and increased weight, while fat accumulations are largely responsible for the increased weight in mature ani-

mals. While percentage of fat increases in mature animals, its distribution over the body tends to become more uneven with advancing age. Bones become harder but more chalky with age, due to accumulations of lime therein; connective tissue also hardens. Experience has further indicated that the ratio of carcass weight to live weight, generally speaking, increases with age and that the ratio of bone and hide to edible meat decreases as a beef animal ages and fattens.

Lean meat is muscular tissue, consisting of bundles of very fine parallel fibers held together by connective tissue. It is plentifully supplied with blood and the walls of the fibers are made up of delicate elastic membrane. Fat is distributed throughout the animal body, appearing as groups of cells containing very little blood. Distribution of fat in the body is a result of feeding and care, and of the beef type characteristics of the animal or lack of them.

Meat contains protein, fat, mineral matter, vitamins, and certain elements known as nitrogenous extractives. Minerals and vitamins are essential to growth and health. Flavor of meat is largely due to the presence of nitrogenous extractives. The reddish color of beef is largely due to the presence of haemoglobin in the blood, but color varies with age and condition of the animal when slaughtered; flavor and tenderness of meat likewise depend considerably on age and condition of the animal at slaughter. Beef from mature animals is usually of better flavor than that from younger animals, due to the presence of more of the nitrogenous extractives.

Steer carcasses are generally superior in conformation to cow carcasses; bull or stag carcasses are uniformly inferior in quality to either steers or heifers. On the whole, fed steers usually show a more desirable combination of conformation, finish, and quality and are therefore considered most desirable as beef producers. This proves out in comparing dressing percentages to live weight of animals slaughtered.

Experience has proved that a close relationship exists between feeder or stocker steers of a certain grade and slaughter cattle of a similar or corresponding grade. Feeder and stocker cattle are divided into: (1) Classes, (2) age selections, (3) weight selections, and (4) grades. This classification is similar in most respects to the classification of slaughter cattle. Feeder steers are bought and sold in the large central markets on a grade basis, there being six standard grades.

Classifying and grading of livestock is done for the purpose of determining values prior to sale or purchase. Grades represent the finest division of groups and within the grade there is usually such a slight variation in individual animals as to make a comparatively narrow price range for the group as a whole. The grade of a load of cattle is an average of the grades of individuals which make up the load. Standard market classes and grades of cattle conform rather closely to prevailing market practices and procedures and are of value to both producers and distributors. The chart on page 2 shows the feeder and stocker cattle classification and grades. After age and weight selections are made, the final segregation is grading, arrived at on the basis of conformation, finish, and quality.

Classifying and grading livestock is an analytical procedure. It consists in dividing, subdividing, sorting, and re-sorting lots of animals into groups having similar and uniform characteristics until each group shows individuals with relatively slight variation in the basic, essential characteristics which serve to distinguish it from the other groups. These characteristics must be fixed or reasonably stable to make grading possible. Classing, selecting for age and selecting for weight all precede grading, which is the last subdivision of the class. It must be remembered, however, that grade has width. Feeders or stockers, for example, may be "high choice," "average choice," or "low choice" grade. Properly graded cattle are ready either for the buyer or salesman.

From the foregoing it is evident that a system of classifying and grading livestock is necessary in order to provide a means for measuring the degree of merit or value which an animal possesses for an intended purpose. The benefits of the general adoption of such a system for everyone engaged in producing, distributing, and marketing livestock are evident.

In evaluating any commodity made up of several separate units it is always advisable to size up the group as a whole and then sort, compare, and check individual units constituting the whole. A system which admits of grouping units together, with a minimum of variations, is essential.

Systems of livestock classification and grading which have been devised in the past few years include standards for the market classes and grades of slaughter, feeder, and stocker cattle. These systems have been developed with the growth and expansion of the beef-cattle industry in America. Increases in city population and the segregation of large numbers of consumers into purchasing power groups, increased cost of beef production and variation in price due to quality, and improved methods of transportation are three important factors which are largely responsible for the development of beef-cattle-grading systems.

However, since classes and grades were not in the past described exactly the same way on all of our livestock markets, the need for standard descriptions of various classes and grades became evident in order that producers, shippers, and packers located in various sections of the country might recognize beef animals under a standard description. Official United States classes and grades of beef, with descriptions, which are standard, have now been developed by the United States Department of Agriculture.

Prof. H. W. Mumford, of the University of Illinois, did the pioneer work in standardizing market classes and grades of livestock over 25 years ago. His accomplishments formed the basis for the standards developed by the United States Department of Agriculture which are now in more or less general use over the country.

SUGGESTED TEACHING PLAN

Situation.³

A majority of the farmers in this locality produce some beef. During the period _____ to _____ head of beef cattle were shipped out from _____. There is considerable trading in feeder and stocker steers, many of such animals being purchased by farmers from time to time to dispose of a surplus of home-grown feeds. _____ percent of the students enrolled in vocational agriculture are interested in knowing beef grades because they have beef projects which involve the purchase of feeder or stocker cattle. A number of adult farmers have also indicated a desire to learn cattle grading.

Cattle grading is not well understood and therefore not a common practice among the beef producers in this locality. Hence, there is a distinct lack of uniformity in the lots of cattle purchased or sold, which results in lower prices to the producer than might otherwise be obtained were proper attention given to grading prior to sale or purchase. Independent buyers handle the bulk of the beef cattle sold in this vicinity.

³ This paragraph illustrates a sample statement of the local situation in connection with this job which justifies its inclusion in a yearly teaching plan. The blank spaces indicate needed data which the teacher should possess.

Objectives.

To develop ability in the individual: (1) To recognize the United States grades of feeder and stocker steers; (2) to grade with reasonable accuracy a bunch of feeder or stocker steers according to the United States grade standards.

Teaching Procedure.

Preparation

1. Display several carefully selected pictures or photos of beef animals varying in breeding, size, age, and condition. Include in this display typical slaughter animals, as well as feeders and stockers, and place pictures side by side for comparison.

2. Question students briefly as to whether all the animals represented in the display are of equal market value and whether they would bring the same price per pound if sold. Get students to see the wide range in variations among animals.

3. Under a heading, "Variations", quickly list on the blackboard the apparent differences in the animal pictured as brought out by the students. Add other items of variation to the list to make it fairly complete.

4. Point out the fact that this wide variation, in an almost unlimited number of combinations of characteristics, is largely responsible for wide variations in the demand for and market prices of beef animals. State that this situation is responsible for the establishment of a system of classifying and grading beef cattle, as well as other livestock, as a means of measuring the value of an animal for the purpose intended. Mention a few of the advantages of such a system.

5. Cite examples of grading systems now in use in connection with the marketing of other agricultural products, such as potatoes and eggs. Draw out a few advantages of such practices to those engaged in producing, distributing, and marketing the products.

6. State that cattle buyers grade beef animals closely when purchasing and that commission firms in the large livestock markets prepare for the day's business and trading operations by classifying and grading cattle in an attempt to get the greatest financial return possible. Raise a question with the students as to whether the producer should not also be familiar with classes and grades of beef cattle in order to accomplish the same purpose.

7. Call attention of students to the importance of beef cattle in the locality by giving some recent production figures and average prices received by the producers over a definite period; quickly list data on the blackboard. Cite actual figures on difference in price received by farmers for graded and ungraded beef animals or for "Choice" and "Common" grades.

8. Refer to the supervised practice program of each student; tabulate quickly on the blackboard the estimated number of feeder or stocker steers which each boy expects to buy; total figures for class.

9. Point out clearly that producers must be able to determine what they should produce and where they should sell their product; and that intelligent selection of feeder and stocker steers on the basis of grade is an important item in successful beef production.

10. Call attention to the quality of cattle handled locally, and common practices followed including any system or plan of grading now in use.

11. Make clear to the students that the kind of feed you have on hand, the amount, and quality will largely determine the number and grade of feeder and stocker steers purchased.

Presentation

1. Write the name of the job on the blackboard.

2. Explain that classifying and grading cattle is a process of dividing, subdividing, sorting, and re-sorting the animals into groups having similar characteristics, for the purpose of determining values on the basis of the meat producing or feeding ability of the animals. Explain that grades represent the finest division of the process where only slight variations are evident in the individual animals included. (See *Interpretive Science and Related Information*, p. 7.)

3. List quickly on the blackboard the factors which affect the value of beef animals—sex condition, age, weight, conformation, finish, and quality, drawing discussion from students. Bring out the fact that although beef-bred cattle are utilized primarily for four special purposes—for slaughter, as feeders, as stockers, and as breeders—that eventually practically all cattle go to slaughter.

4. Mention briefly some of the physical and chemical changes which occur in the animal body as growth and development take place; also, the value of concentrate and roughage feeds at various stages in animal growth. (See *Interpretive Science and Related Information*, p. 7.)

5. Define slaughter, feeder, and stocker cattle, and explain that there is a close correlation between the grade of animal used as a feeder or stocker and the grade of slaughter animal produced, as well as the quality of meat obtained from the carcass. (See *Interpretive Science and Related Information*, p. 7.) Point out the close relationship existing between feeder and stocker cattle; illustrate with pictures.

6. With the aid of the chart on page 2 or the blackboard, present the official United States Cattle Schedule and point out the position of grade in this set-up. Explain fully. Call special attention to the six grades of feeder and stocker steers.

7. Exhibit charts or pictures of the United States grades of slaughter steers and of feeder steers. Have pupils discuss briefly the apparent

differences in the animals and the probable reasons for grade designations as given. (See illustration, pp. 3 to 5, and references, p. 20.)

8. Have students observe a cattle-grading demonstration, preferably one on feeder steers, by an expert grader. (Arrangements should be made in advance for this demonstration.) Before leaving the classroom, urge every student to watch the grading procedure step by step and then to listen closely to the reasons given by the grader regarding his decisions concerning each grade.

9. Upon returning from the demonstration summarize with the students the high points in the demonstration, bringing out the fact that in order to grade cattle the grader must have in mind the ideal animal which typifies each of the established grades. Point out, also, that it takes close observation, study, and experience to become proficient in cattle grading, but that it is possible for any one to acquire reasonable skill if he applies himself to the task. Create a desire in the student to know more about the job by emphasizing the financial advantages to the producer.

10. Assign readings, including pages 60 to 75, inclusive, Department Bulletin No. 1464, United States Department of Agriculture, on cattle grading (see references, p. 20), and conduct a supervised study period with the group. Ask each student to make notes on his reference reading.

11. Display again pictures of the various grades of feeder steers. Discuss with the class in detail the specifications of each of the six grades, using the feeder and stocker cattle-grading charts appearing on pages 15 to 20. Review the meaning of such terms as conformation, finish, quality, refinement, and other terms on which students may not be entirely clear. Arrangements should also be made to have each student score at least one animal, using the cattle-grading chart on page 15 before attempting to grade steers with the help of the simplified grading chart on page 19.

12. List the steps in grading feeder and stocker cattle on the blackboard, and outline with the class the standard procedure used in grading, including the use of simplified grading chart. (See analysis of the job; also chart, p. 19.) Clear up questions so that each student understands how to proceed. Caution students against designating the top lot of a bunch of steers as No. A1 or the bottom lot as No. 5, unless steers actually fall into this grade. Call attention to the fact that probably not all of the six grades will be represented in the same bunch of steers.

13. Take class on field trip to grade a good-sized bunch of steers. Pass out mimeographed copies of the analysis of the job and the simplified grading chart. Have class size up the bunch and designate approximate grade as nearly as possible. Divide class into squads to

get sorting and grouping done. Have one squad sort out poorest steers; have another squad sort out top steers; and have still other squads sort the remainder of the bunch. Now check with the class the grouping of the steers, having students re-sort if necessary. Have students determine grades represented. Check grades with the class.

Supervision

1. Arrange for additional field trips to enable each boy to grade feeder and stocker steers on his own responsibility. This might be accomplished in connection with the purchase or sale of project animals of students.

2. Urge grading of feeder and stocker steers by students on their home farms.

3. Call attention to the fact that the procedure for grading feeder cows, feeder heifers, and slaughter steers, cows, and heifers is similar to this procedure. Encourage further reference reading on these jobs.

Testing

1. Check each student's grading of steers made on field trips taken.

2. Check individual's grading of purchased feeders and stockers for his own farming program.

3. Compare market prices received by students for well-graded steers with those received for poorly graded steers.

4. Inspect home farms of students for improved and better grades of livestock after sufficient time has elapsed for such improvement to take place.

FEEDER AND STOCKER CATTLE GRADING CHARTS

In the chart (p. 15), developed by the United States Department of Agriculture, the ideal or perfect feeder or stocker steer has been assigned a value of 100 percent. Such an animal would have the degree of conformation, finish, and quality equal to this score. The most undesirable animal—the direct opposite of the ideal one—having the least value as a stocker or feeder, has been assigned a value of 40 percent. The range between the most desirable animal and the least desirable animal is therefore 60 percent, representing the range between an animal grading Fancy or A1 and an animal grading Inferior or No. 5. There is also a range of 10 percent between each of the six grades of feeder and stocker cattle.

The chart also provides for a range (upper and lower limits) within each grade of three equal parts with percentages representing each division for "high," "average," and "low," Fancy, Choice, Good, Medium, Common, or Inferior grade animals.

The grade of an animal is determined by judging its degree of merit as a feeder or stocker from the standpoint of: (1) General appearance, and (2) the degree of perfection of the various parts of the animal. A value of 30 percent has been assigned to general appearance and 70 percent to detailed description, or 100 percent in all, which represents the ideal animal for feeder and stocker purposes. Further subdivisions of these percentages are also made as shown in the chart (p. 15). The relative quantity and comparative value per hundredweight of the meat cut from each part of the slaughtered animal was considered in arriving at the percentages assigned and the different parts of the live animal were correlated with the wholesale cuts of beef as obtained from the carcass.

If in scoring an animal to arrive at the grade the sum of all the different values assigned totals nearest the grade division of 98.33, for example, the animal would grade "high" Fancy. If the animal under consideration scored 62, which is nearest 61.67, the animal would grade "low" Medium. Other grades may be determined in a similar manner. The chart is of value in focusing attention on the points which determine grade.

On page 19, a simplified feeder and stocker cattle-grading chart is shown. It is of value in grading and checking the grade of either individual animals or bunches of steers after the student has become familiar with the detailed chart which begins on page 15. A procedure for using this simplified grading chart appears in the analysis of the job (p. 6).

Feeder and stocker cattle grading chart

[From United States Department of Agriculture Bulletin 1464, Market Classes and Grades of Cattle]

Lot No.----- Age----- Breed----- Date----- Town-----
 Individual No.----- Weight----- Class----- Grade----- State-----

| Grade..... | 100.00 | Fancy or No. A1 | | | Choice or No. 1 | | | Good or No. 2 | | | Medium or No. 3 | | | Common or No. 4 | | | Inferior or No. 5 | | | 40.00 | Detail score | Total score |
|---------------------------------|--------------|---|-------|-------|---|-------|-------|---|-------|-------|--|-------|-------|--|-------|-------|---|-------|-------|-------|--------------|-------------|
| Percentage grade divisions..... | 100.00 | 98.33 | 95.00 | 91.67 | 88.33 | 85.00 | 81.67 | 78.33 | 75.00 | 71.67 | 68.33 | 65.00 | 61.67 | 58.33 | 55.00 | 51.67 | 48.33 | 45.00 | 41.67 | 40.00 | | |
| General description..... | 30.00 | | | | | | | | | | | | | | | | | | | | | |
| <i>Conformation.....</i> | <i>12.00</i> | | | | | | | | | | | | | | | | | | | | | |
| Compactness..... | 3.50 | Very compact 3.44 3.32 3.21 | | | Compact 3.09 2.98 2.86 | | | Moderately compact 2.74 2.62 2.51 | | | Slightly rangy 2.39 2.28 2.16 | | | Rangy 20.4 1.92 1.81 | | | Very rangy 1.60 1.58 1.46 | | | 1.40 | | |
| Width..... | 2.00 | Very wide 1.97 1.90 1.83 | | | Wide 1.77 1.70 1.63 | | | Moderately wide 1.57 1.50 1.43 | | | Slightly narrow 1.37 1.30 1.23 | | | Narrow 1.17 1.10 1.03 | | | Very narrow .97 .90 .83 | | | .80 | | |
| Depth..... | 2.50 | Very deep 2.46 2.38 2.29 | | | Deep 2.21 2.12 2.04 | | | Moderately deep 1.96 1.88 1.79 | | | Slightly shallow 1.71 1.62 1.54 | | | Shallow 1.46 1.38 1.29 | | | Very shallow 1.21 1.12 1.04 | | | 1.00 | | |
| Top line..... | 1.50 | Straight and level 1.47 1.42 1.38 | | | Straight and level 1.32 1.28 1.22 | | | straight and level 1.17 1.12 1.08 | | | and oblique 1.02 .98 .92 | | | Irregular and oblique .87 .82 .78 | | | Very irregular and oblique .72 .68 .62 | | | .60 | | |
| Underline..... | 1.00 | Straight and level .98 .95 .92 | | | Straight and level .88 .85 .82 | | | Tends to be straight and level .78 .75 .72 | | | Slightly irregular and oblique .68 .65 .62 | | | Irregular and oblique .58 .55 .52 | | | Very irregular and oblique .48 .45 .42 | | | .40 | | |
| Side lines..... | 1.50 | Straight and parallel 1.47 1.42 1.38 | | | Straight and parallel 1.32 1.28 1.22 | | | Tends to be straight and parallel 1.17 1.12 1.08 | | | Slightly irregular and oblique 1.02 .98 .92 | | | Irregular and oblique .87 .82 .78 | | | Very irregular and oblique .72 .68 .62 | | | .60 | | |
| <i>Finish.....</i> | <i>5.00</i> | | | | | | | | | | | | | | | | | | | | | |
| Thickness..... | 1.50 | Moderately thick 1.47 1.42 1.38 | | | Moderately thick 1.32 1.28 1.22 | | | Slightly thin 1.17 1.12 1.08 | | | Thin 1.02 .98 .92 | | | Very thin .87 .82 .78 | | | Extremely thin .72 .68 .62 | | | .60 | | |
| Smoothness..... | 1.50 | Very smooth 1.47 1.42 1.38 | | | Smooth 1.32 1.28 1.22 | | | Moderately smooth 1.17 1.12 1.08 | | | Slightly rough 1.02 .98 .92 | | | Rough .97 .92 .78 | | | Very rough .72 .68 .62 | | | .60 | | |
| Fullness of flank..... | .50 | Moderately full and low .49 .48 .46 | | | Moderately full and low .44 .42 .41 | | | Slightly high .39 .38 .36 | | | High .34 .32 .31 | | | Very high .29 .28 .26 | | | Extremely high .24 .22 .21 | | | .20 | | |
| Fullness of twist..... | .50 | Moderately full and deep .49 .48 .46 | | | Moderately full and deep .44 .42 .41 | | | Slightly shallow .39 .38 .26 | | | Shallow .34 .32 .31 | | | Very shallow .29 .28 .26 | | | Extremely shallow .24 .22 .21 | | | .20 | | |

Feeder and stocker cattle grading chart—Continued

[From United States Department of Agriculture Bulletin 1464, Market Classes and Grades of Cattle]

Lot No.----- Age----- Breed----- Date----- Town-----
 Individual No.----- Weight----- Class----- Grade----- State-----

| Grade----- | 100.00 | Fancy or No. A1 | | | Choice or No. 1 | | | Good or No. 2 | | | Medium or No. 3 | | | Common or No. 4 | | | Inferior or No. 5 | | | Detail score | Total score |
|--------------------------------------|--------------|--|-------|-------|--|-------|-------|---|-------|-------|---|-------|-------|---|-------|-------|--|-------|-------|--------------|-------------|
| Percentage grade divisions----- | 100.00 | 98.33 | 95.00 | 91.67 | 88.33 | 85.00 | 81.67 | 78.33 | 75.00 | 71.67 | 68.33 | 65.00 | 61.67 | 58.33 | 55.00 | 51.67 | 48.33 | 45.00 | 41.67 | | |
| General description—Continued | | | | | | | | | | | | | | | | | | | | | |
| <i>Conformation—Continued</i> | | | | | | | | | | | | | | | | | | | | | |
| Uniform covering----- | 1.00 | Very uniform .98 .95 .92 | | | Uniform .88 .85 .82 | | | Moderately uniform .78 .75 .72 | | | Slightly uneven .68 .65 .62 | | | Uneven .58 .55 .52 | | | Very uneven .48 .45 .42 | | | .40 | |
| Quality----- | 1.00 | | | | | | | | | | | | | | | | | | | | |
| Refinement----- | 4.00 | Moderately refined 3.93 3.80 3.67 | | | Moderately refined 3.53 3.40 3.27 | | | Slightly too coarse or refined 3.13 3.00 2.87 | | | Slightly too coarse or refined 2.73 2.60 2.47 | | | Very coarse or refined 2.33 2.20 2.07 | | | Extremely coarse or refined 1.93 1.80 1.67 | | | 1.60 | |
| Hide----- | 2.00 | Moderately thick and pliable 1.97 1.90 1.83 | | | Moderately thick and pliable 1.77 1.70 1.63 | | | Slightly too thick or thin, slightly unpliant 1.57 1.50 1.43 | | | Slightly too thick or thin and unpliant 1.37 1.30 1.23 | | | Very thick or thin, very unpliant 1.17 1.10 1.03 | | | Extremely thick or thin, extremely unpliant .97 .90 .83 | | | .80 | |
| Hair----- | 1.60 | Fine 1.47 1.42 1.38 | | | Fine 1.32 1.28 1.22 | | | Moderately fine 1.17 1.12 1.08 | | | Slightly coarse 1.02 .98 .92 | | | Very coarse .87 .82 .78 | | | Extremely coarse .72 .68 .62 | | | .60 | |
| Bone----- | 1.50 | Medium size 1.47 1.42 1.38 | | | Medium size 1.32 1.28 1.22 | | | Slightly too large or small 1.17 1.12 1.08 | | | Much too large or small 1.02 .98 .92 | | | Very large or small .87 .82 .78 | | | Extremely large or small .72 .68 .62 | | | .60 | |
| Flesh----- | 1.00 | Firm .98 .95 .92 | | | Moderately firm .88 .85 .82 | | | Slightly soft .78 .75 .72 | | | Soft .68 .65 .62 | | | Very soft .58 .55 .52 | | | Extremely soft .48 .45 .42 | | | .40 | |
| Disposition----- | 1.50 | Very quiet 1.47 1.42 1.38 | | | Quiet 1.32 1.28 1.22 | | | Moderately quiet 1.17 1.12 1.08 | | | Slightly nervous 1.02 .98 .92 | | | Very nervous .87 .82 .78 | | | Wild .72 .68 .62 | | | .60 | |
| Color----- | 1.50 | Very desirable 1.47 1.42 1.38 | | | Desirable 1.32 1.28 1.22 | | | Moderately desirable 1.17 1.12 1.08 | | | Slightly undesirable 1.02 .98 .92 | | | Undesirable .87 .82 .78 | | | Very undesirable .72 .68 .62 | | | .60 | |
| Detail description----- | 70.00 | | | | | | | | | | | | | | | | | | | | |
| Head----- | 2.00 | Very short and wide 1.97 1.90 1.83 | | | Short and wide 1.77 1.70 1.63 | | | Moderately short and wide 1.57 1.50 1.43 | | | Slightly long and narrow 1.37 1.30 1.23 | | | Long and narrow 1.17 1.10 1.03 | | | Very long and narrow .97 .90 .83 | | | .80 | |
| Neck----- | 1.50 | Very short 1.47 1.42 1.38 | | | Short 1.32 1.28 1.22 | | | Moderately short 1.17 1.12 1.08 | | | Slightly long 1.02 .98 .92 | | | Long .87 .82 .78 | | | Very long .72 .68 .62 | | | .60 | |

| | | | | | | | | |
|--------------------|-------|---|---|--|--|---|---|------|
| Brisket..... | 1.50 | Moderately full 1.47 1.42 1.38 Very wide and deep | Moderately full 1.32 1.28 1.22 | Slightly deficient 1.17 1.12 1.08 Moderately wide and deep | Deficient 1.02 .98 .92 Slightly narrow and shallow | Very deficient .87 .82 .78 Narrow and shallow | Extremely deficient .72 .68 .62 Very narrow and shallow | .60 |
| Chest..... | 2.00 | 1.97 1.90 1.83 | 1.77 1.70 1.63 | 1.57 1.50 1.43 Moderately wide and deep | 1.37 1.30 1.23 Slightly narrow and shallow | 1.17 1.10 1.03 Narrow and shallow | .97 .90 .83 Very narrow and shallow | .80 |
| Shoulder..... | 6.00 | Wide and deep 5.90 5.70 5.50 Moderately thick | Wide and deep 5.30 5.10 4.90 Moderately thick | 4.70 4.50 4.30 Slightly thin | 4.10 3.90 3.70 Thin | 3.50 3.30 3.10 Very thin | 2.90 2.70 2.50 Extremely thin | 2.40 |
| Fore legs..... | 3.00 | 2.95 2.85 2.75 Very short | 2.65 2.55 2.45 Short | 2.35 2.25 2.15 Moderately short | 2.05 1.95 1.85 Slightly long | 1.75 1.65 1.55 Very long | 1.45 1.35 1.25 Extremely long | 1.20 |
| | 1.00 | .98 .95 .92 | .88 .85 .82 | .78 .75 .72 | .68 .65 .62 | .58 .55 .52 | .48 .45 .42 Extremely deficient | .40 |
| Crops..... | 2.00 | Moderately full 1.97 1.90 1.83 Moderately thick | Moderately full 1.77 1.70 1.63 Moderately thick | Slightly deficient 1.57 1.50 1.43 Slightly thin | Deficient 1.37 1.30 1.23 Thin | Very deficient 1.17 1.10 1.03 Very thin | .97 .90 .83 Extremely thin | .80 |
| | 1.00 | .98 .95 .92 | .88 .85 .82 | .78 .75 .72 | .68 .65 .62 | .58 .55 .52 | .48 .45 .42 Very low and narrow | .40 |
| Back..... | 4.00 | Straight and wide 3.93 3.90 3.67 Moderately thick | Straight and wide 3.53 3.40 3.27 Moderately thick | 3.13 3.00 2.87 Slightly thin | 2.73 2.60 2.47 Thin | 2.33 2.20 2.07 Very thin | 1.93 1.80 1.67 Extremely thin | 1.60 |
| | 2.00 | 1.97 1.90 1.83 Very long and well sprung | 1.77 1.70 1.63 Long and well sprung | 1.57 1.50 1.43 Moderately long | 1.37 1.30 1.23 Slightly short and flat | 1.17 1.10 1.03 Short and flat | .97 .90 .83 Very short and flat | .80 |
| Ribs or sides..... | 1.50 | 1.47 1.42 1.38 Moderately thick | 1.32 1.28 1.22 Moderately thick | 1.17 1.12 1.08 Slightly thin | 1.02 .98 .92 Thin | .87 .82 .78 Very thin | .72 .68 .62 Extremely thin | .60 |
| | 2.50 | .49 .49 .40 | .44 .42 .41 | .39 .38 .36 | .34 .32 .31 | .29 .28 .26 | .24 .22 .21 Extremely paunchy | .20 |
| Belly..... | 1.00 | Not paunchy .98 .95 .92 Very low | Not paunchy .88 .85 .82 Low | Slightly paunchy .78 .75 .72 Moderately low | Paunchy .68 .65 .62 Slightly high | Very paunchy .58 .55 .52 Very high | .48 .45 .42 Extremely high | .40 |
| Rear flank..... | 1.50 | .49 .48 .46 Moderately thick | .44 .42 .41 Moderately thick | .39 .38 .36 Slightly thin | .34 .32 .31 Thin | .29 .28 .26 Very thin | .24 .22 .21 Extremely thin | .20 |
| | 2.50 | .49 .48 .46 | .44 .42 .41 | .39 .38 .36 | .34 .32 .31 | .29 .28 .26 | .24 .22 .21 Very narrow | .20 |
| Loin..... | 10.00 | 9.83 9.50 9.17 Moderately thick | 8.83 8.50 8.17 Moderately thick | 7.83 7.50 7.17 Slightly thin | 6.83 6.50 6.17 Thin | 5.83 5.50 5.17 Very thin | 4.83 4.50 4.17 Extremely thin | 4.00 |
| | 5.00 | 4.92 4.75 4.58 Wide | 4.42 4.25 4.08 Wide | 3.92 3.75 3.58 Moderately wide | 3.42 3.25 3.08 Slightly narrow | 2.92 2.75 2.58 Narrow | 2.42 2.25 2.08 Very narrow | 2.00 |
| Hips..... | 3.00 | 2.95 2.85 2.75 Moderately thick | 2.65 2.55 2.45 Moderately thick | 2.35 2.25 2.15 Slightly thin | 2.05 1.95 1.85 Thin | 1.75 1.65 1.55 Very thin | 1.45 1.35 1.25 Extremely thin | 1.20 |
| | 1.00 | .98 .95 .92 | .88 .85 .82 | .78 .75 .72 | .68 .65 .62 | .58 .55 .52 | .48 .45 .42 Very narrow and peaked | .40 |
| Rump..... | 4.00 | Uniformly wide 3.93 3.80 3.67 Moderately thick | Uniformly wide 3.53 3.40 3.27 Moderately thick | 3.13 3.00 2.87 Slightly thin | 2.73 2.60 2.47 Thin | 2.33 2.20 2.07 Very thin | 1.93 1.80 1.67 Extremely thin | 1.60 |
| | 2.00 | 1.97 1.90 1.83 | 1.77 1.70 1.63 | 1.57 1.50 1.43 | 1.37 1.30 1.23 | 1.17 1.10 1.03 | .97 .90 .83 | .80 |

1 Conformation.

2 Finish.

Feeder and stocker cattle-grading chart—Continued

[From United States Department of Agriculture Bulletin 1464, Market Classes and Grades of Cattle]

Lot No. _____ Age _____ Breed _____ Date _____ Town _____
 Individual No. _____ Weight _____ Class _____ Grade _____ State _____

| Grade..... | 100.00 | Fancy or No. A1 | | | Choice or No. 1 | | | Good or No. 2 | | | Medium or No. 3 | | | Common or No. 4 | | | Inferior or No. 5 | | | 40.00 | De-tail score | Total score | | | | | |
|-------------------------------------|--------|--------------------|---------------------|-------|-----------------|--------------------|---------------------|---------------|-------|--------------------|---------------------------------|-------|-------|--------------------|-----------------------------|-------|-------------------|--------------------|--------------------|-------|---------------|--------------------|-------------------------|--|--|--|--|
| | 100.00 | 98.33 | 95.00 | 91.67 | 88.33 | 85.00 | 81.67 | 78.33 | 75.00 | 71.67 | 68.33 | 65.00 | 61.67 | 58.33 | 55.00 | 51.67 | 48.33 | 45.00 | 41.67 | | | | 40.00 | | | | |
| Percentage grade divisions..... | 100.00 | 98.33 | 95.00 | 91.67 | 88.33 | 85.00 | 81.67 | 78.33 | 75.00 | 71.67 | 68.33 | 65.00 | 61.67 | 58.33 | 55.00 | 51.67 | 48.33 | 45.00 | 41.67 | 40.00 | | | | | | | |
| Detail description—Continued | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tail head..... | 1.50 | 1.47 1.42 1.38 | Even with back line | | | 1.32 1.28 1.22 | Even with back line | | | 1.17 1.12 1.08 | Tends to be even with back line | | | 1.02 .98 .92 | Slightly high or drooped | | | .87 .82 .78 | High or drooped | | | .72 .68 .62 | .60 | | | | |
| | 1.50 | .49 .48 .46 | Moderately thick | | | .44 .42 .41 | Moderately thick | | | .39 .38 .36 | Slightly thin | | | .34 .32 .31 | Thin | | | .29 .28 .26 | Very thin | | | .24 .22 .21 | .20 | | | | |
| | | | Very wide and deep | | | | Wide and deep | | | | and deep | | | | Slightly narrow and shallow | | | | Narrow and shallow | | | | Very narrow and shallow | | | | |
| Thigh..... | 6.00 | 5.90 5.70 5.50 | Very deep | | | 6.30 5.10 4.90 | Deep | | | 4.70 4.50 4.30 | Moderately deep | | | 4.10 3.90 3.70 | Slightly shallow | | | 3.50 3.30 3.10 | Shallow | | | 2.90 2.70 2.50 | 2.40 | | | | |
| Twist..... | 4.00 | 3.93 3.80 3.67 | Moderately thick | | | 3.53 3.40 3.27 | Moderately thick | | | 3.13 3.00 2.87 | Slightly thin | | | 2.73 2.60 2.47 | Thin | | | 2.33 2.20 2.07 | Very thin | | | 1.93 1.80 1.67 | 1.60 | | | | |
| | 2.00 | 1.97 1.90 1.83 | Very short | | | 1.77 1.70 1.63 | Short | | | 1.57 1.50 1.43 | Moderately short | | | 1.37 1.30 1.23 | Slightly long | | | 1.17 1.10 1.03 | Very long | | | .97 .90 .83 | .80 | | | | |
| Hind legs..... | 1.00 | .98 .95 .92 | | | | .88 .85 .82 | | | | .78 .75 .72 | | | | .68 .65 .62 | | | | .58 .55 .52 | | | | .48 .45 .42 | .40 | | | | |

¹ Conformation.

² Finish.

Simplified feeder and stocker cattle grading chart ¹

Lot No.
Animal No.

Date
Station

Where graded
Grader

| | High | Average | Low | High | Average | Low | High | Average | Low | High | Average | Low | High | Average | Low | High | Average | Low | | | |
|--------------------------------|---------------------|---------|-----|------------------|---------|-----|---------------------------|---------|-----|--------------------------|---------|-----|-----------------|---------|-----|----------------------|---------|-----|--|--|--|
| Conformation: | | | | | | | | | | | | | | | | | | | | | |
| Compactness..... | Very compact | | | Compact | | | Moderately compact | | | Slightly rangy | | | Rangy | | | Very rangy | | | | | |
| Legs..... | Very short | | | Short | | | Moderately short | | | Slightly long | | | Long | | | Very long | | | | | |
| Head..... | Very short and wide | | | Short and wide | | | Moderately short and wide | | | Slightly long and narrow | | | Long and narrow | | | Very long and narrow | | | | | |
| Width of body..... | Wide | | | Moderately wide | | | Slightly narrow | | | Narrow | | | Very narrow | | | Extremely narrow | | | | | |
| Crops..... | Full | | | Moderately full | | | Slightly deficient | | | Deficient | | | Very deficient | | | Extremely deficient | | | | | |
| Loin..... | Thick | | | Moderately thick | | | Slightly thin | | | Thin | | | Very thin | | | Extremely thin | | | | | |
| Rump..... | Full | | | Moderately full | | | Slightly deficient | | | Deficient | | | Very deficient | | | Extremely deficient | | | | | |
| Round..... | Full | | | Moderately full | | | Slightly deficient | | | Deficient | | | Very deficient | | | Extremely deficient | | | | | |
| Thickness of flesh (lean)..... | Very thick | | | Thick | | | Moderately thick | | | Slightly thin | | | Thin | | | Very thin | | | | | |
| Finish: | | | | | | | | | | | | | | | | | | | | | |
| Thickness of fat..... | Thick | | | Moderately thick | | | Slightly thin | | | Thin | | | Very thin | | | Extremely thin | | | | | |
| Quality: | | | | | | | | | | | | | | | | | | | | | |
| Refinement..... | Very refined | | | Refined | | | Moderately refined | | | Slightly coarse | | | Coarse | | | Staggy | | | | | |
| Grade..... | <i>Fancy</i> | | | <i>Choice</i> | | | <i>Good</i> | | | <i>Medium</i> | | | <i>Common</i> | | | <i>Inferior</i> | | | | | |

¹ Slightly modified form No. 100 (B. A. E.; B. A. I.) prepared by the United States Department of Agriculture.

REFERENCES

The following references and teaching material on feeder and stocker cattle may be obtained through the Office of Information, United States Department of Agriculture, Washington, D. C. This list should be supplemented with other helpful material from the State agricultural colleges and agricultural experiment stations, State departments of agriculture, and similar agencies, as well as from various up-to-date reference books:

- Department Bulletin No. 1360, Market Classes and Grades of Live-stock.
- Department Bulletin No. 1464, Market Classes and Grades of Cattle.
- Service and Regulatory Announcement No. 99, Official United States Standards for Grades of Carcass Beef.
- Service and Regulatory Announcement No. 112, Official United States Standards for Grades of Slaughter Cattle.
- Circular No. 28, Market Classes and Grades of Calves and Vealers.
- Circular No. 505, Market Classes and Grades of Feeder and Stocker Cattle.
- Colored posters (4), United States Grades of Slaughter Steers; United States Grades of Feeder Steers; United States Grades of Slaughter Cows; United States Grades of Slaughter Heifers.

