

United States Department of Agriculture

Agricultural Marketing Service

Livestock and Seed Division

# United States Standards for Grades of Pork Carcasses

Effective date January 14, 1985

The following is a reprint of the Official United States Standards for the Grades of Pork Carcasses promulgated by the Secretary of Agriculture under the Agricultural Marketing Act of 1946 (60 Stat. 1087; 7 U. S. C. 1621-1627) as amended and related authority in the annual appropriation acts for the Department of Agriculture. The standards are reprinted with amendments effective January 14, 1985.

# **Development of the Standards**

Tentative standards for grades of pork carcasses and fresh pork cuts were issued by USDA in 1931. These tentative standards were slightly revised in 1933.

New standards for grades of barrow and gilt carcasses were proposed by USDA in 1949. These standards represented the first application of objective measurements as guides to grades for pork carcasses. Slight revisions were made in the proposed standards prior to adoption, as the Official United Standards for Grades of Barrow and Gilt Carcasses, effective September 12, 1952.

The official standards were amended in July 1955, by changing the grade designation Choice No. 1, Choice No. 2, and Choice No. 3 to U.S. No. 1, U.S. No. 2, and U.S. No. 3, respectively. In addition, the backfat specifications were reworded slightly to reflect the reduced fat thickness requirements and to allow more inform interpretation of the standards.

On April 1, 1968, the official standards were again revised to reflect the improvements made since 1955 in pork carcasses. The minimum backfat thickness requirement for the U.S. No. 1 grade was eliminated and a new U.S. No. 1 grade was eliminated and a new U.S. No. 1 grade was established to properly identify the superior pork carcasses then being produced . The former No. 1, No. 2, No. 3 grades were renamed No. 2, No. 3, and No. 4, respectively. The former Medium and Cull grades were combined and renamed U.S. Utility. Also, the maximum allowable adjustment for variations-from-normal fat distribution and muscling were changed from one-half to one full grade to more adequately reflect the effect of these factors on yields of cuts.

In addition, the text of the "Application of Standards" section was reworded to more clearly define the grade factors and clarify their use in determining the grade.

On January 14, 1985, the barrow and gilt carcass grade standards were once again updated to reflect improvements in pork carcasses and changes in pork slaughter industry since 1968. A 1980 grade survey found that over 70 percent of the pork carcasses being produced were in the U.S. No. 1 grade, indicating a large amount of variation in yield which was not being accounted for by the grades. The changes simplified the standards by basing the grade on the backfat thickness over the last rib with a single adjustment for muscling. In addition, the grade lines were tightened to more adequately sort the pork carcasses being produced among several grades. Some minor changes in the wording of the quality requirements were also made.

## §4.131 Scope.

These standards for grades of pork are written primarily in terms of carcasses. However, they also are applicable to the grading of sides. To simplify the phrasing of the standards, the words "carcass" and "carcasses" are used also to mean "side" or "sides."

# §4.132 Bases for pork carcass standards.

The official standards for pork carcass grades provide for segregation according to (a) class, as determined by the apparent sex condition of the animal at the time of slaughter, and (b) grade, which reflects quality and the expected yield of lean cuts in the carcass.

### §54.133 Pork carcass classes.

The five classes of pork carcasses, comparable to the same five classes of slaughter hogs, are barrow, gilt, sow, stag, and boar carcasses. The official standards provide for the grading of barrow, gilt, and sow carcasses. Grades are not provided for stag and boar carcasses.

#### §54.134 Application of standards for grades of barrow and gilt carcasses.

(a) Grades for barrow and gilt carcasses are based on two general considerations: (1) Quality -- which includes characteristics of the lean and fat, and (2) the expected yield of the four lean cuts (ham, loin, picnic shoulder, and Boston butt).

(b) Two general levels of quality are recognized: (1) Acceptable and (2) unacceptable. The quality of the lean is best evaluated by a direct observation of its characteristics in a cut surface, and when a cut surface of a major muscle is available, this shall be used as the basis for the quality determination. Quality of the lean is described in terms of characteristics of the loin eye muscle at the 10th rib. When this surface is not available, other exposed major muscle surfaces can be used for quality determinations based on the normal development of the characteristics in relation to those described for the loin eye muscle at the 10th rib. When a major muscle cut surface is not available, the quality of the lean shall be evaluated indirectly based on the quality-indicating characteristics that are evident in the carcass. These include firmness of the fat and lean, amount of feathering between the ribs, and color of the lean. However, a pork carcass must have a belly with sufficient thickness to be suitable for bacon production to be considered acceptable in quality. Belly thickness is determined by an overall evaluation of its thickness, with primary consideration being given to the thickness along the navel edge and the thickness of the belly (flank) pocket.

(c) For barrow and gilt carcasses with the minimum acceptable lean quality, the cut surface of the loin eye muscle at the 10th rib will be slightly firm, have a slight amount of marbling, and be grayish pink to moderately dark red in color. For intact carcasses, minimum acceptable quality of lean is indicated by a slight amount of feathering, fat that is slightly firm, and lean that is slightly firm and grayish pink to moderately dark red in color. The belly is at least slightly thick with a

minimum of 0.6 inches of thickness at any point. Barrow and gilt carcasses which meet or exceed these minimum quality requirements are eligible for one of the four numerical grades which reflect expected yields of four lean cuts. Barrow and gilt carcasses with unacceptable quality are graded U.S. Utility. Also graded U.S. Utility are carcasses which have soft and/or oily fat.

(d) Barrow and gilt carcasses which have indications of acceptable lean quality and acceptable belly thickness are placed in one of four grades, denoted by numbers 1 through 4. These grades are based entirely on the expected carcass yields of the four lean cuts, and no consideration is given to a development of quality superior to that described as minimum for these grades. The expected yields of the four lean cuts for each of these four grades are shown in Table 1.

Grade	Yield
U.S. No. 1 U.S. No. 2 U.S. No. 3 U.S. No. 4	<ul><li>60.4 percent and over.</li><li>57.4 to 60.3 percent.</li><li>54.4 to 57.3 percent.</li><li>Less than 54.4 percent.</li></ul>

TABLE 1 -- Expected Yields of the Four Lean Cuts, by Grade, Based on Chilled Carcass Weight<sup>1</sup>

<sup>1</sup>These yields will be approximately 1 percent lower if based on hot carcass weight.

The yields shown in Table 1 are based on cutting and trimming methods used by the U.S. Department of Agriculture in developing the standards. (These cutting and trimming methods may be obtained from the Livestock Division, Agricultural Marketing Service, U.S. Department of Agriculture, Washington, DC 20250.) Other cutting and trimming methods may result in different yields. For example, if more fat is left on the four lean cuts than prescribed in the USDA methods, the yield of each grade will be higher than indicated. However, such a method of trimming, if applied uniformly, should result in similar differences in yields between grades.

(e) The grade of a barrow or gilt carcass with acceptable lean quality and belly thickness is determined by considering two characteristics: (1) The backfat thickness over the last rib, and (2) the degree of muscling (thickness of muscling in relation to skeletal size).

(f) The amount of external fat on a barrow or gilt carcass is the major factor affecting the yield of lean cuts. As the amount of external fat increases, the yield of lean cuts decreases. An accurate evaluation of the amount of external fat may be made by measuring the backfat thickness at one or more points on the carcass. In grading barrow and gilt carcasses, the amount of external fat is considered by measuring the backfat thickness (including skin) over the last rib, perpendicular to the skin surface. The actual measurement, without adjustment, is used for the grade determination, except for carcasses from which the skin has been smoothly and evenly removed, which will have one-tenth inch added to the measurement to compensate for the loss of the skin. Carcasses which have had the skin removed in a rough, uneven manner, or which have had more than a slight amount of trimming to remove bruised or otherwise damaged parts, are ineligible for grading. The yield of four lean cuts from skinned carcasses will be higher than indicated in Table 1. Pork carcasses with average fatness will usually have 1.1 to 1.2 inches of backfat over the last rib. Each one-tenth inch change in backfat thickness over the last rib changes the grade by 40 percent of a grade.

(g) The second factor considered in barrow and gilt carcass grading is the degree of muscling. The degree of muscling is determined by a subjective evaluation of the thickness of muscling in relation to skeletal size. Since the total thickness of a carcass is affected by both the amount of fat and the amount of muscle in relation to skeletal size, the fatness must also be considered when degree of muscling is evaluated. To best evaluate muscling, primary consideration is given to those parts least affected by fatness, such as the ham. In evaluating the ham for degree of muscling, consideration should be given to both the stifle and back views. The size of the lumbar lean area and the relative width through the back or loin and through the center of the ham are also good indications of muscling.

(h) In barrow and gilt carcass grading, three degrees of muscling -- thick (superior), average, and thin (inferior) -- are considered. In previous standards (33 FR 5081) six degrees of muscling (very thick, thick, moderately thick, slightly thin, thin, and very thin) were recognized. The current thick (superior) muscling includes only those carcasses previously classed as very thick. Current average muscling includes the previous thick and moderately thick degrees, and the current thin (inferior) muscling includes the previous slightly thin, thin, and very thin degrees. Carcasses with thick muscling and a low degree of fatness will be much thicker through the hams than through the loins and the loins will appear full and well-rounded. Thick muscled carcasses with a high degree of fatness will be slightly thicker through the hams than through the loins, will be nearly flat over the loins, and will have a slight break into the sides. Thick muscled carcasses will usually have a large lumbar lean area and greater than average depth of chine. Average muscled carcasses with a low degree of fatness will be thicker through the hams than through the loins, and the loins will appear slightly full and rounded. Carcasses with average muscling and a high degree of fatness will have about equal thickness through the hams and loins. Carcasses with thin muscling and a low degree of fatness usually are slightly thicker through the shoulders and the center of the hams than through the back and the loins will appear sloping and flat. Thin muscled carcasses with a high degree of fatness will be wider through the loins than through the hams and will have a distinct break from over the loins into the sides. Thin muscled carcasses will usually have a small lumbar lean area and less than average depth of chine.

(i) Barrow and gilt carcasses with average muscling will be graded according to their backfat thickness over the last rib. Carcasses with thin muscling will be graded one grade lower than indicated by the backfat thickness over the last rib. Carcasses with thick muscling will be graded one grade higher than indicated by their backfat thickness over the last rib except that carcasses with 1.75 inches or greater backfat thickness over the last rib must remain in the U.S. No. 4 grade.

(j) The official barrow and gilt carcass grade standards contain a mathematical equation for calculating the grade and a table for determining a preliminary grade based on the backfat thickness over the last rib. In determining the final grade all fractions are dropped, the grade is not rounded to the nearest whole number. Also, the individual grade specifications describe the various combinations of muscling and backfat thickness over the last rib which qualify for that grade.

# §54.135 Specifications for official United States standards for grades of barrow and gilt carcasses.

(a) The grade of a barrow or gilt carcass is determined on the basis of the following equation: Carcass grade = (4.0 X backfat thickness over the last rib, inches) (1.0 X muscling score). To apply this equation, muscling should be scored as follows: thin muscling = 1, average muscling = 2, and thick muscling = 3. Carcasses with thin muscling cannot grade U.S. No. 1. The grade may also be determined by calculating a preliminary grade according to the schedule shown in Table 2, and adjusting up or down one grade for thick or thin muscling, respectively.

Preliminary Grade	Backfat thickness range
U.S. No. 3	Less than 1.00 inch. 1.00 to 1.24 inches. 1.25 to 1.49 inches. 1.50 inches and over. <sup>1</sup>

TABLE 2 -- Preliminary Carcass Grade Based on Backfat Thickness Over the Last Rib

<sup>1</sup>Carcasses with last rib backfat thickness of 1.75 inches or over cannot be graded U.S. No. 3, even with thick muscling.

(b) The following descriptions provide a guide to the characteristics of barrow and gilt carcasses in each grade.

(1) U.S. No. 1. (i) Barrow and gilt carcasses in this grade have an acceptable quality of lean and belly thickness and a high expected yield (60.4 percent and over) of four lean cuts. U.S. No. 1 barrow and gilt carcasses must have less than average backfat thickness over the last rib with average muscling, or average backfat thickness over the last rib coupled with thick muscling.

(ii) Barrow and gilt carcasses with average muscling will be graded U.S. No. 1 if their backfat thickness over the last rib is less than 1.00 inch. Carcasses with thick muscling will be graded U.S. No. 1 if their backfat thickness over the last rib is less than 1.25 inches. Carcasses with thin muscling may not be graded U.S. No. 1.

(2) U.S. No. 2. (i) Barrow and gilt carcasses in this grade have an acceptable quality of lean and belly thickness and an average expected yield (57.4 to 60.3 percent) of four lean cuts. Carcasses with average backfat thickness over the last rib and average muscling, less than average backfat thickness over the last rib and thin muscling, or greater than average backfat thickness over the last rib and thick muscling will qualify for this grade.

(ii) Barrow and gilt carcasses with average muscling will be graded U.S. No. 2 if their backfat thickness over the last rib is 1.00 to 1.24 inches. Carcasses with thick muscling will be graded U.S. No. 2 if their backfat thickness over the last rib is 1.25 to 1.49 inches. Carcasses with thin muscling must have less than 1.00 inch of backfat thickness over the last rib to be graded U.S. No. 2.

(3) *U.S. No. 3.* (i) Barrow and gilt carcasses in this grade have an acceptable quality of lean and belly thickness and a slightly low expected yield (54.4 to 57.3 percent) of four lean cuts. Carcasses with average muscling and more than average backfat thickness over the last rib, thin

muscling and average backfat thickness over the last rib, or thick muscling and much greater than average backfat thickness over the last rib will qualify for this grade.

(ii) Barrow and gilt carcasses with average muscling will be graded U.S. No. 3 if their backfat thickness over the last rib is 1.25 to 1.49 inches. Carcasses with thick muscling will be graded U.S. No. 3 if their backfat thickness over the last rib is 1.50 to 1.74 inches. Carcasses with 1.75 inches or greater backfat thickness over the last rib cannot grade U.S. No. 3. Carcasses with thin muscling will be graded U.S. No. 3 if their backfat thickness over the last rib cannot grade U.S. No. 3. Carcasses with thin muscling will be graded U.S. No. 3 if their backfat thickness over the last rib cannot grade U.S. No. 3. Carcasses with thin muscling will be graded U.S. No. 3 if their backfat thickness over the last rib is 1.00 to 1.24 inches.

(4) U.S. No. 4. (i) Barrow and gilt carcasses in this grade have an acceptable quality of lean and belly thickness and a low expected yield (less than 54.4 percent) of four lean cuts. Carcasses in the U.S. No. 4 grade always have more than average backfat thickness over the last rib, and thick, average, or thin muscling, depending on the degree to which the backfat thickness over the last rib exceeds the average.

(ii) Barrow and gilt carcasses with average muscling will be graded U.S. No. 4 if their backfat thickness over the last rib is 1.50 inches or greater. Carcasses with thick muscling will be graded U.S. No. 4 with backfat thickness over the last rib of 1.75 inches or greater, and those with thin muscling will be graded U.S. No. 4 with 1.25 inches or greater backfat thickness over the last rib.

(5) *U.S. Utility*. All carcasses with unacceptable quality of lean or belly thickness will be graded U.S. Utility, regardless of their degree of muscling or backfat thickness over the last rib. Also, all carcasses which have soft and/or oily fat will be graded U.S. Utility.

## §54.136 Application of standards for grades of sow carcasses.

(a) The standards for grades of sow carcasses are based on (1) differences in yields of lean cuts and of fat cuts and (2) differences in quality of cuts. There are rather uniform differences in these characteristics from one grade to another. The U.S. No. 1 grade has about the minimum degree of finish required to produce cuts of acceptable palatability. The four major trimmed lean cuts -- hams, loins, picnics, and butts -- normally make up more than 48 percent of carcass weight. The U.S. No. 2 and U.S. No. 3 grades have successively higher degrees of finish resulting in lower yields of lean cuts and higher yields of fat cuts than U.S. No. 1 grade. Yields of lean cuts average 45 to 48 percent and under 45 percent of carcass weight, respectively, for U.S. No. 2 and U.S. No. 3 grades. In addition, the cuts from these grades have more fat remaining after trimming of external fat than do the cuts from U.S. No. 1 grade carcasses. Medium grade carcasses are underfinished and exhibit the lack of firmness and indications of little or no marbling (fat interspersed within the lean) associated with low palatability. Cull grade carcasses are decidedly underfinished and the pork is soft with very little evidence of marbling and is of low palatability.

(b) The standards for grades of sow carcasses apply only to carcasses with the firmness appropriate to their degree of finish. However, carcasses which are typically soft or oily as a result of feeds producing soft or oily fat may be graded in accordance with the standards provided they are identified as soft or oily along with the grade.

(c) There are differences in the bellies of sow carcasses which are peculiar to the class. Increasing numbers of litters farrowed and raised by a sow result in greater development of mammary tissue and increasing roughness of the belly along the teat line with accompanying seediness. In addition, when pigs were weaned only a short time before the sow was slaughtered the mammary tissue still contains milk and the bellies are commonly termed "wet." However, the smoothness or dryness of bellies has little appreciable effect on the basic grade determining factors and the standards contain no provision for altering the grade of a sow carcass due to these belly characteristics. Rather than forming a part of the basis for grade, it is the intent of the standards that smoothness and dryness of bellies should be a separate consideration used in conjunction with grade, weight, and other factors in evaluating sow carcasses.

(d) Average back fat thickness measurements provide a reliable indication of the yields of cuts and the quality of cuts which determine the grade of sow carcasses. Therefore, indication of a specific range in back fat thickness for each grade forms a part of the standards for grade. Analysis of measurement and cutting data for sow carcasses reveals that yields of cuts are approximately equal in carcasses which are equal in fat thickness but widely different in weight. Thus, to maintain comparable yields in a grade at all weights, back fat thickness requirements for a grade are the same at all weights. This is in contrast to the standards for barrows and gilts, in which the fat thickness for a grade increases for heavier or longer carcasses in order to maintain yields of cuts. With practice in the grading operation, visual estimates of fat thickness may often replace actual measurements with satisfactory accuracy. The following table of measurements provides an objective guide in determining the grade of sow carcasses.

Grade	Average back fat thickness <sup>1</sup>
U.S. No. 2 U.S. No. 3	<ol> <li>1.5 to 1.9 inches.</li> <li>1.9 to 2.3 inches.</li> <li>2.3 or more inches.</li> <li>1.1 to 1.5 inches.</li> <li>Less than 1.1 inches.</li> </ol>

<sup>1</sup>Average of three measurements, skin included, made opposite first and last ribs and the last lumbar vertebrae.

(e) In addition to the measurement guides to grade, the standards also include descriptive specifications outlining the characteristics of sow carcasses typical of the minimum degree of finish for each grade. Average back fat thickness is a major factor in grading, but more accurate appraisal of yields of cuts and quality of cuts is achieved in borderline cases by consideration of thickness of muscling, conformation of the major cuts, uniformity of fleshing and finish firmness, and indications of marbling. However, in no case may the final grade of a carcass be more than one-half the width of a grade different from that indicated by average back fat thickness.

(f) The standards describe rather typical carcasses of each grade, and no attempt is made to describe the numerous combinations of characteristics that may qualify a carcass for a particular grade.

#### §54.137 Specifications for official United States standards for grades of sow carcasses.

(a) U.S. No. 1 grade. U.S. No. 1 grade sow carcasses have about the minimum degree of finish required to produce pork cuts of acceptable palatability. Meatiness and yield of lean cuts from carcass weight are slightly high. Yield of fat cuts is slightly low. The ratio of total lean and fat to bone is slightly high. Carcasses with the minimum finish required for U.S. No. 1 grade are moderately long and slightly wide in relation to weight. The back and loins are moderately full and thick with a well-rounded appearance. Hams are usually moderately thick and plump and are slightly full in the lower part toward the hock. Bellies are moderately long, slightly thick, and moderately uniform in thickness with a slightly thick belly pocket. Shoulders are slightly thick and full. Carcasses are usually moderately well-balanced and moderately uniform in fleshing and finish. There are moderate quantities of interior fat in the pelvic area, a slightly thin but moderately extensive layer of fat lining the inside surface of the ribs, and a slightly small quantity of feathering, or fat intermingled with the lean between the ribs. The lean is firm. Both exterior and interior fats are firm, white, and of excellent quality. Carcasses with back fat thickness qualifying them for the fatter one-half of the U.S. No. 1 grade but with thin muscling in the major cuts, uneven fleshing and finish, or thick and uneven bellies shall be graded U.S. No. 2. Carcasses with back fat thickness qualifying them for the thinner one-half of the U.S. No. 1 grade but with only a moderately thin and incomplete rib lining, a moderately small quantity of feathering, slightly thin bellies with moderately thin belly pockets, and moderately soft lean and fat shall be graded Medium.

(b) U.S. No. 2 grade. U.S. No. 2 grade sow carcasses have a higher degree of finish than the minimum required to produce pork cuts of acceptable palatability. Meatiness and yield of lean cuts from carcass weight are slightly low. Yield of fat cuts is slightly high. The ratio of total lean and fat to bone is moderately high. Carcasses with the minimum finish required for U.S. No. 2 grade are slightly short and moderately wide in relation to weight. The back and loins are full and thick and are especially full near the edges. Hams are usually thick and plump and are moderately full in the lower part toward the hock. Bellies are slightly short, moderately thick, and rather uniform in thickness with a moderately thick belly pocket. Shoulders are moderately thick and full. Carcasses are usually well-balanced and uniform in fleshing and finish. There are slightly large quantities of interior fat in the pelvic area, a slightly thick and rather extensive layer of fat lining the inside surface of the ribs, and moderate feathering. The lean is firm. Both exterior and interior fats are firm, white, and of excellent quality. Carcasses with back fat thickness qualifying them for the fatter one-half of the U.S. No. 2 grade but with thin muscling in the major cuts uneven fleshing and finish, or very thick and uneven bellies shall be graded U.S. No. 3. Carcasses with back fat thickness qualifying them for the thinner one-half of the U.S. No. 2 grade but with thick muscling in the major cuts, well-balanced fleshing and uniform finish and slightly thick bellies shall be graded U.S. No. 1.

(c) U.S. No. 3 grade. U.S. No. 3 grade sow carcasses have a decidedly higher degree of finish than the minimum required to produce pork cuts of acceptable palatability. Meatiness and yield of lean cuts from carcass weight are low. Yield of fat cuts is high. The ratio of total lean and fat to bone is high. Carcasses with the minimum finish required for U.S. No. 3 grade are short and wide in relation to weight. The back and loins are very full and thick and are decidedly full at the

edges. Hams are usually very thick and plump and are full in the lower part toward the hock due to a thick fat covering. Bellies are short and thick and uniform in thickness with a thick belly pocket. Shoulders are thick and full. Carcasses are usually well-balanced and uniform in fleshing and finish. There are large quantities of interior fat in the pelvic area, a moderately thick and extensive layer of fat lining the inside surface of the ribs, and slightly abundant feathering. The lean is firm. Both exterior and interior fats are firm, white, and of excellent quality. Carcasses with back fat thickness indicative of nearly minimum finish for the U.S. No. 3 grade but with thick muscling in the major cuts, well-balanced fleshing and uniform finish, and moderately thick bellies shall be graded U.S. No. 2.

(d) Medium grade. Medium grade sow carcasses have a lower degree of finish than the minimum required to produce pork cuts of acceptable palatability. Yield of lean cuts from carcass weight is moderately high. Yield of fat cuts is moderately low. The ratio of total lean and fat to bone is moderately low. Carcasses with the minimum finish required for Medium grade are long and rather narrow in relation to weight. The back and loins are rather thin, lack fullness, and slope away from the center. Hams are usually slightly thin, lack plumpness, and taper toward the hock. Bellies are long and moderately thin and are somewhat uneven in thickness with a thin belly pocket. Shoulders are moderately thin and flat. Carcasses tend to be uneven and lack uniformity of fleshing and finish. There are slightly small quantities of interior fat in the pelvic area, a thin and incomplete layer of fat lining the inside surface of the ribs, and only a small quantity of feathering. The lean is moderately soft with little evidence of marbling. Both exterior and interior fats are moderately soft, white to creamy white, and of moderately low quality. Carcasses with back fat thickness qualifying them for the fatter one-half of the Medium grade that are firm and have slightly thick bellies and belly pockets, a slightly thin but moderately extensive rib lining, and a slightly small quantity of feathering shall be graded U.S. No. 1. Carcasses with back fat thickness qualifying them for the thinner one-half of the Medium grade but with little or no rib lining and feathering, thin bellies and very thin belly pockets, and soft lean and fat shall be graded Cull.

(e) *Cull grade*. Cull grade sow carcasses have a decidedly lower degree of finish than the minimum required to produce pork cuts of acceptable palatability. Yield of lean cuts from carcass weight is high. Yield of fat cuts is low. The ratio of total lean and fat to bone is low. Carcasses with the degree of finish typical of the Cull grade are long and narrow in relation to weight. The back and loins are thin and decidedly lacking in fullness with a definite slope toward the sides. Hams are usually thin and flat and taper toward the hock. Bellies are very long and thin and are uneven in thickness with a very thin belly pocket. Shoulders are thin and flat. Carcasses tend to be uneven and lack uniformity of fleshing and finish. There are only small quantities of interior fat in the pelvic area, little or no fat lining the inside surface of the ribs, and scant feathering. The lean is soft and watery with very little evidence of marbling. Both exterior and interior fats are soft, creamy white to white, and of low quality. Carcasses with back fat thickness indicative of nearly maximum finish for the Cull grade that are only moderately soft and have moderately thin bellies and belly pockets, a thin and incomplete rib lining, and a small quantity of feathering shall be graded Medium.