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LAMB CARCASS QUALITY GRADE REVISIONS

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The grading of lamb, yearling mutton and mutton carcasses is a voluntary service designed to facilitate the marketing of livestock and meat. When graded by a Federal meat grader, the grade of an ovine carcass may consist of a quality grade, a yield grade or a combination of the two.

USDA quality grades for lambs were adopted in 1931 to serve as nation-wide guides for the expected palatability of the cooked product. The term quality is used to refer only to the palatability-indicating characteristics of the lean. As such, it is one of the factors considered in determining the quality grade. The term quality grade is used to refer to an overall evaluation of a carcass based on (1) its quality and (2) its conformation. However, this is not intended to imply that variations in conformation are either directly or indirectly related to differences in palatability, since research has shown no relationship.

Several revisions were adopted in the quality grade standards for lamb, yearling mutton and mutton carcasses in October, 1982. Primarily, these revisions dealt with the determination of the class of the carcass and the evaluation of the quality characteristics.

The application of the various quality grades by a Federal meat grader is dependent upon the classification of the ovine carcass into one of three classes: (1) lamb, (2) yearling mutton, or (3) mutton. Differentiation among these classes has been dependent upon the presence or absence of the cannon bone break joint. Previous standards required a carcass to have two break joints present in order to be classified as lamb. Yearling mutton was identified as any carcass that had only one break joint, and any carcasses that had missing cannon bones were assumed to have had spool joints. In addition, the standards provided for carcasses with two break joints to be classified as yearling mutton if the lean color and rib bones indicated more advanced maturity. Carcasses that had two spool joints were classified as mutton.

Presently, a few carcasses are produced which have one break joint and one spool joint or, for various reasons, one of the cannon bones is missing. The newly adopted standards make these carcasses eligible to be classed as lamb if their other maturity characteristics are typical of lamb.

The quality of the lean is best evaluated by consideration of its texture, firmness and marbling as observed in a cut surface in relation to the apparent maturity of the carcass. However, because lamb carcasses are

not ribbed before grading, direct observation of these characteristics is not possible. Therefore, the previous standards evaluated the quality of the lean indirectly by giving equal consideration to the quantity of fat intermingled within the lean between the ribs called "feathering," the streaking of fat within the inside flank muscles and flank fullness and firmness.

With the 1982 revisions, rib feathering and flank fullness and firmness are eliminated as factors in determining the quality grade of ovine carcasses. Quality evaluation is now based entirely on flank streaking in relation to maturity. The USDA feels the simplification of the quality evaluation will improve the palatability prediction of the quality grades and increase the uniformity and repeatability of the Federal meat graders nationwide.

Because of the limited number of young carcasses which fail to qualify for Good and because of the limited variation among such carcasses, it was determined that four quality grades would be sufficient for young carcasses. Therefore, the Cull grade was dropped for the lamb and yearling mutton classes and all carcasses which fail to qualify for Good will be graded Utility. The Cull grade will be kept for the mutton class.

In summary, the significant changes in the standards for grades of lamb, yearling mutton and mutton carcasses are the following:

- (1) Procedures to differentiate between ovine classes are changed to allow carcasses with a missing break joint or with one spool joint to be classed as lamb under certain conditions which relate to other evidences of maturity.
- (2) Quality grade will be based on the development of flank fat streakings in relation to maturity.
- (3) Rib feathering and flank fullness and firmness were eliminated as factors in determining the quality grade.
- (4) Quality and conformation compensations were standardized and descriptions of degrees of muscling associated with each grade were added to the conformation description.
- (5) The Cull grade was dropped for lamb and yearling mutton classes.

The USDA believes these changes will simplify the teaching and application of the quality grade standards without significantly affecting the number of lamb carcasses in any grade. In addition, these revisions allow some young carcasses which were classed as yearling mutton to be classed as lamb.

Yield grades for lambs were adopted by the USDA in 1969 as a means of predicting the quantity of retail cuts a carcass would yield. When the revisions were made in the quality grade standards in 1982, no changes were made in the determination or application of the yield grade standards. Therefore, the yield grade of a lamb carcass is still determined by considering (1) the amount of external fat, (2) the amount of kidney and pelvic fat, and (3) the conformation grade of the leg.

The production of "consumer-preferred lamb" is critical to the advancement of the lamb industry. Although yield grades are not widely used by the industry, yield grading is an extremely valuable evaluation technique that determines carcass merit. Producers and feeders must be aware of the value differences associated with the various grades and concentrate on the production of a meaty, trim carcass that is desired by the consumer.