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Lamb Carcass Value

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The value of a lamb carcass depends upon two factors: (1) the quality of the lean and (2) the quantity of retail cuts the carcass will yield. Both of these value-determining characteristics are estimated by the USDA quality and USDA yield grades.

USDA quality grades are reliable nationwide guides to lamb eating quality—tenderness, juiciness and flavor. The USDA quality grades for lamb are Prime, Choice, Good, Utility and Cull. The quality grade of young lamb carcasses is based on separate evaluations of two general considerations: the quality or the palatability—indicating characteristics of the lean and conformation of the carcass.

Conformation refers to the thickness of the carcass with particular reference to the relative development of the muscular system. Superior conformation implies a high proportion of edible meat to bone and is reflected in carcasses which are very wide and thick in relation to their length and which have a very plump and full and well-rounded appearance.

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 animal. However, because lamb carcasses are not ribbed before grading, direct observation of these characteristics is not possible. Therefore, the quality of the lean is evaluated 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 the firmness of the fat and lean.
The quality standards are intended to apply to all lamb carcasses without regard to the apparent sex condition. However, carcasses from males which have thick, heavy necks and shoulders typical of uncastrated males are discounted in quality grade in accordance with the extent to which these characteristics are developed.

The five USDA yield grades are numbered 1 through 5. Yield grade 1 carcasses have the highest yield of retail cuts; yield grade 5 the lowest. A carcass which is typical of its yield grade would be expected to yield 3.5 percent more in total retail cuts than the next lower yield grade. Variations in yield of retail cuts among carcasses are accounted for chiefly by two considerations: (1) the amount of fat that must be trimmed from the carcass in making retail cuts and (2) the thickness and fullness of muscling.

The yield grade of a lamb carcass is determined by considering three characteristics: the amount of external fat, the amount of kidney and pelvic fat and the conformation grade of the legs. The amount of external fat is evaluated in terms of its actual thickness over the center of the rib eye muscle between the 12th and 13th ribs. On intact carcasses, fat thickness is measured by probing. As the amount of external fat increases, the percent of retail cuts decreases. Each .05-inch change in fat thickness over the rib eye changes the yield grade by one-third of a grade. A lamb with .30-inch external fat thickness has a preliminary yield grade of 4.0.

The amount of kidney and pelvic fat considered in determining the yield grade includes the kidney and surrounding fat and the lumbar and pelvic fat in the loin and leg region. The amount of these fats is evaluated subjectively and expressed as a percent of the carcass weight. As the amount of kidney and pelvic fat increases, the percent of retail cuts decreases. A change of 1% of the carcass weight in kidney and pelvic fat changes the yield grade by one-fourth of a grade.

The conformation grade of the legs is evaluated with reference to the muscular development of the wholesale leg. The evaluation is made in terms of thirds of a grade and is coded using 15 for high Prime and 1 for low Cull. An increase in the conformation grade of the legs increases the percent of retail cuts.

Evaluating slaughter lambs in terms of their yield grade and quality grade is very useful in appraising their value. The USDA grades provide a basis for pricing both slaughter lambs and carcasses in relation to their yield of salable meat and eating quality. These grades serve as guides to aid lamb producers and feeders in their efforts to produce "consumer-preferred lamb." When producers receive payment for their lambs in line with the value differences associated with yield and quality grades, this will encourage the production of a meatier, less wasty type of lamb and result in greater acceptability and improved demand for lamb.