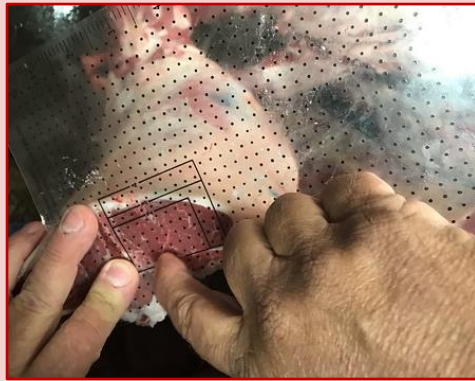


Carcass evaluation

Carcass evaluation is evaluating carcasses to estimate quality and yield and ultimately value. Sheep and goat carcasses are evaluated similarly, but goats fatten differently and have less overall fat and muscle than sheep. There are quality and yield grades for sheep, but only single grades for goats.



A fat depth gauge (probe) is used to measure **backfat thickness** at the 12th rib of the carcass. It can also be measured using ultrasound technology. The average backfat for lamb carcasses is about 0.25 in., with a range of 0.05 to 0.5 in. Young goats have very little backfat. As they mature, they begin to accumulate backfat, but usually less than lambs. **Body wall thickness** is another measurement, taken 1 inch beyond the loin eye. It usually ranges from 0.5 to 1.2 in.

The **loin eye (or rib) area**, is the cross-section of the longissimus dorsi muscle between the 12th and 13th ribs. It is usually measured using a plastic grid (with dots). It can also be measured digitally or determined via ultrasound (in a live animal). Loin eye area ranges from 1.5 to 4 in² in lambs and averages about 2.5 in². Goat carcasses usually have smaller rib eyes. Rib and loin chops are the most expensive cuts in the lamb carcass.

Kidney, pelvic, and heart fat (KPH) is the fat in the body cavity. It is expressed as a percentage of (hot) carcass weight. Most lamb carcasses have between 1 and 4 percent. KPH is no longer used to calculate yield grade in lambs. Goats (and Finn and hair sheep to a lesser extent) deposit more internal fat and will be fatter overall if they have similar measurements of backfat as woolled sheep.

Yield grades are an indicator of usable meat in a carcass. Backfat thickness is the only criteria used to yield grade lambs. The yield grades for lamb carcasses are 1-5, with 1 being the highest yield (leanest) and 5 being the lowest (fattest). Most lamb carcasses fall within yield grades 2-3. USDA grades for goats are Selection 1, 2, and 3. They are primarily muscle scores.



Quality grades are a predictor of eating satisfaction. In sheep, they are determined by three factors: quality (intramuscular fat), maturity, and conformation. Unlike beef carcasses, intramuscular fat in lambs is evaluated in the muscle of the flank. Also, lamb carcasses are not usually ribbed (split) for grading. The quality grades for sheep carcasses are Prime, Choice, Good, and Utility. At least 95 percent of lamb carcasses grade Prime or Choice. Good grade carcasses are leaner and may be desirable for some markets, especially non-traditional.



Leg conformation score is a subjective evaluation of the muscling in the lamb's hind legs. Scores typically range from 9 (high good) to 15 (high prime) and average 12 (high choice or slightly thick muscling). Leg scores no longer affect yield grade, but they are a good indicator of carcass quality and yield.