**Yield Grade (YG):**

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What is it? Yield Grades estimate the amount of boneless, closely trimmed retail cuts from the high-value parts of the carcass: the round, loin, rib and chuck.

Range: 1.0 (lean, heavily muscled) - 5.9 (very fat, lightly muscled)

- REA = More Muscle = \( \downarrow \) YG
- REA = Less Muscle = \( \uparrow \) YG
- Less KPH = Trimmer = \( \downarrow \) YG
- More KPH = Fatter = \( \uparrow \) YG

**Dressing Percentage**

What is it? The percentage if the live animal weight that is left as carcass after slaughter and “dressing” - Industry Average is 62%

\[ \text{Dr\%} = (\text{Carcass Wt.} / \text{Live Wt.}) \times 100\% \]

**How do we Calculate it?**

- **Preliminary Yield Grade (PYG)**
  - start at a YG of 2 \( \uparrow 0.25 \) per 0.1 inch of back fat
  - Example: Carcass with 0.2 in backfat = PYG 2.50
- **Required Ribeye Area (RREA)**
  - A 600lb carcass should have a REA of 11.0 inches
    - Add 1.3in per additional 100lbs
  - Example: 700lb Carcass should have a 12.3in REA
- **Ribeye Area Adjustment**
  - Above average or below average muscled steers require a 0.3 PYG for each square inch change in REA size.
    - PYG Adj. = (Required REA - Actual REA) \times 0.3
- **Kidney Pelvic Heart Fat (KPH)**
  - Measurement of Internal Fat
  - Adjust PYG \( \uparrow \) or \( \downarrow 0.1 \) per 0.5% KPH starting at 3.5%
  - Example: 4.0% KPH with a PYG 3.0 = PYG of 3.1

Calculation: \[ \text{YG} = \text{PYG} \pm \text{REA} \pm \text{KPH} \]

**What is Quality Grade?**

When it comes to quality grade, it is all about the eating experience of beef. Quality grades are based on two main criteria: the degree of marbling or intramuscular fat in the beef, and the maturity or estimated age of the animal at slaughter - They are one of the main determinants in the value of a beef carcass.

Top Three Used in Fed Cattle: Prime, Choice and Select

**What is Marbling?**

Its the term we use to describe the intramuscular fat - fat that is in the meat. We look at the ribeye between the 12th and 13th rib to determine the marbling for the whole carcass. Genetics plays a role in how well an animal can marble.

Marbling Designations (Highest to Lowest):
- Moderately Abundant (MA), Slightly Abundant (SA),
- Moderate (MD), Modest (MT), Small (SM), Slight (SL)

**Resources**

- [https://meat.tamu.edu/beefgrading/](https://meat.tamu.edu/beefgrading/)
- [https://www.ndsu.edu/agriculture/ag-hub/ag-topics/livestock/beef/production/yield-grades-carcasses](https://www.ndsu.edu/agriculture/ag-hub/ag-topics/livestock/beef/production/yield-grades-carcasses)