

The yield grade equation that I use is the USDA equation and goes as follows:

2.5

$$\begin{aligned}
 &+ (2.5 \times 12\text{th rib backfat in}) \\
 &+ (0.0038 \times \text{Hot carcass weight lbs}) \\
 &- (0.32 \times \text{Ribeye area, in}^2) \\
 &+ (0.2 \times \text{KPH, \%})
 \end{aligned}$$

estimate

will be given

estimate

For Quality grade I use the USDA Quality grade chart that combines Maturity and marbling score (see attachment).

will be given

RELATIONSHIP BETWEEN MARBLING, MATURITY, AND CARCASS QUALITY GRADE¹

Degrees of Marbling	Maturity				
	A	B	C	D	E
Slightly Abundant	PRIME				
Moderate			COMMERCIAL		
Modest	CHOICE				
Small					
Slight	SELECT		UTILITY		
Traces					
Practically Devoid	STANDARD			CUTTER	