

Canadian pork carcass grading: the 1992 Hennessy HPG-2 baseline prediction equation for estimating lean yield

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In Canada, the overall objective of pork carcass grading is to identify the true commercial value of a carcass by segregating carcasses on the basis of lean yield and carcass weight. Under the current grading system, lean yield is estimated from fat thickness and muscle depth measured at the 3/4 last ribs, 7 cm off the mid-line with either a Hennessy HGP-2 or Destron PG-100 probe. Each probe has a unique prediction equation for estimating lean yield. These equations were derived from data of the 1992 National pork carcass cut-out project. However, under the research protocol adopted in 1992, the HGP-2 equation was the baseline equation to which the PG-100 prediction equation was compared.

The adequacy of the 1992 HGP-2 baseline prediction equation for estimating lean yield was determined by comparing the actual lean yield obtained from a full cut-out and the lean yield estimated from fat thickness and muscle depth measured by the HGP-2 optical grading probe. Two hundred fifty six carcasses, sampled during late fall 2001 and early winter 2002, were used for this study. The sampling protocol was designed to ensure a full representation of both fat and lean carcasses.

Comparing the actual lean yield and estimated lean yield did reveal discrepancies. The 1992 HGP-2 baseline prediction equation under-estimated the lean yield of the lean to medium-to-lean carcasses whereas, for fat carcasses, it estimated yield fairly accurately.

Implications:

The results show the inadequacy of using a baseline prediction equation derived 10 years ago to grade pigs of today and strongly suggest that the prediction equations for estimating lean yield currently used for grading pigs should be revised.