

IDEA



Making a Better Meat Product

Initiative for the Development of Entrepreneurs in Agriculture

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Management at the farm level influences the eating quality of meat. Flavor, juiciness, tenderness, texture, and cooking odor are all influenced by such factors as genetics, nutrition, age, and handling techniques. Linking the retailer directly to the producer can better identify and eliminate the following meat quality problems.

Tenderness/Toughness:

- **Genetics:** The more muscular breeds of livestock are generally tougher and develop less marbling, which results in a tougher, drier steak or chop. The Berkshire swine breed has documented superior eating qualities. More recently, University of Illinois work shows the Duroc breed demonstrated superior eating qualities over the other breeds in their study.
- **Aging:** The aging of beef results in a more tender product. It is well documented that cattle of Brahma influence have a greater incidence of toughness and require additional aging time.
- The age of the animal influences tenderness, with the older the animal the tougher the meat.
- Vitamin D supplementation has been shown to improve tenderness in beef.

Flavor/Juiciness:

- Meat flavor is primarily the result of marbling or intra-muscular fat. Certain breeds of livestock will develop greater amounts of marbling. Examples include Angus cattle and Hampshire, Duroc, and Berkshire hogs.

- Certain grains and forages will influence meat flavor. Corn and soybean meal, major Illinois crops, appear to be important ingredients in producing a flavor preferred by most mid-west consumers. To guarantee a consistently high-quality meat product, feed ingredients must also be consistent and high quality.

Cooking Odor:

- Cooking odor is generally found in intact males and older lamb. Cooking odor can be eliminated through proper management and harvesting at a younger age.

Food Safety: High quality and pathogen-free meat is a function of:

- Cleanliness at all levels of the chain, including the farm, processor, distributor, and retailer.
- Freshness of product. By making more direct links between the farmer and the retailer, the meat distribution system can guarantee fresher product.
- Proper animal handling techniques reduces stress and resulting quality problems such as bruising, dark cutters in beef and pale, soft, and watery pork. Bruising alone costs the U.S. beef industry an estimated \$22 million per year.
- Reducing pre-harvest stress. Dark cutters and PSE pork are created when cattle and hogs are stressed due to poor pre-harvest management. Certainly animal disposition and implanting regiment can influence dark cutters, but quality people and facilities

as well.

- Proper injection technique. Choosing the best injection site and route of administration, correct needle size, proper sanitation, proper animal restraint, all help to reduce incidence of tissue damage.

Building demand for your product, even if you are not direct marketing to the consumer is a function of management that guarantees a consistently high quality meat product.

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