Managing cattle for maximum beef quality and palatability

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Management recommendations to maintain beef quality and palatability — from genetics to the meat case

Cow-calf

- Reduce the level of *Bos indicus* breeding to a minimum while still maintaining genetic levels consistent with heat resistance and hybrid vigor — $^{3}/_{8}$ or less is recommended
- Castrate male calves at the earliest practical age; prior to weaning is optimal
- Maintain an aggressive health program, including a timely vaccination and parasite control program; follow recommended administration procedures and avoid injections in the area of the round, rump, loin and rib
- Wean calves at the earliest practical age — 6 to 8 months is recommended
- Maintain an adequate level of nutrition
- Use no more than one approved pre-weaning implant, following the recommendations on the product label

Stocker

- Maintain an adequate level of nutrition consistent with the implant program to sustain growth
- Maintain an aggressive health program, including a timely vaccination and parasite control programs
- Use no more than one approved pasture implant, following the recommendations on the product label; be sure the level of nutrition is adequate to support the implant program
- Market cattle in a timely manner

Feedlot

- Feed cattle to their optimum end-point as determined by in-weight and implant strategy; when possible, sort into outcome groups

- Continue to maintain an aggressive health program, including vaccinations and parasite controls; closely monitor cattle health and promptly administer effective treatment for respiratory sickness
- Use implants that will optimize the genetic potential of the cattle being fed as determined by their in-weight; do not use implants within 50 to 60 days of slaughter and follow the recommendations on the product label
- Cycling heifers tend to be prone to a high level of dark cutters; therefore, the use of a heat suppressant is recommended
- Use beta agonists to improve carcass yields and cutability; product, dosage level and duration of feeding should be matched to specific marketing targets and follow label directions with regard to dosage
- Avoid situations that increase the potential for antemortem stress and dark cutters; these include but are not limited to: mixing cattle from different feedlot pens prior to shipping, weighing up cattle more than 2 hours prior to shipping, moving cattle aggressively and standing without water, especially in very hot weather

Post-harvest

- Use electrical stimulation to hasten the onset of rigor mortis, thus preventing cold shortening and improving the appearance, grading and tenderness of the carcass
- Chill the carcass at temperatures low enough to diminish bacterial growth but high enough to prevent cold shortening — 32°F to 34°F is optimal
- Allow meat to age or mature a reasonable length of time prior to merchandising, which allows the inherent enzyme systems to tenderize the meat and improve its consistency; recommended aging times may vary with the cut and quality grade

Managing cattle for maximum beef quality and palatability was developed by Dr. Ted Montgomery for the Sustainable Beef Resource Center. For a copy of this brochure, go to:
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