UF Beef Updates

C. Carr[1]

[1]Department of Animal Sciences, University of Florida, Gainesville, FL

Ground Beef

In a study funded by the Beef Checkoff, round subprimals were sourced from cows (COW), fed upper 2/3 Choice beef carcasses (TC), or fed beef carcasses with Slight or Small marbling (COM), and used as lean sources, while boneless plates from TC and COM carcasses were utilized as fat sources. Lean and fat sources were mixed and ground to make 80 and 90% lean patties representing all 12 possible combinations. Results from this study suggest that higher quality lean inputs do not necessarily result in greater ground beef quality or palatability.

Beef Quality

Steaks from the top sirloin and the chuck clod heart are an economical alternative to steaks from the short loin or rib, but only a few studies have evaluated either subprimal and none of the studies assessed lean color during retail display and the effects of postmortem aging on retail display. Thus, in a study funded by the Beef Checkoff, packaging type, temperature and days aging were evaluated relative to the palatability and retail color of top sirloin, chuck clod heart, and strip loin steaks. Products were selected from the range of USDA quality grades indicative of bulk of the U.S. fed beef supply, from middle Select to middle low Choice. All subprimals were aged from 14 to 42 days at 32 or 38°F in two or three packaging options, a DryBag®, a specialized highly moisture-permeable bag, a traditional vacuum-bag, or no packaging.

There was not an appreciable improvement in tenderness in this study between the sirloin steaks aged for 14 and 42 days. However, anterior and posterior positioning within the sirloin subprimal did influence tenderness with more posterior cut steaks generally being tougher. Strip steaks did become more tender as the length of aging increased, but the actual difference was marginal. Clod steaks were consistent for tenderness regardless of days of postmortem aging. Generally, steaks from subprimals aged for fewer days remained lighter and more red throughout the retail display than those steaks aged for 28 and 42 days.

Cull Cow Value

The value of culled cows is at an all-time high; but, so is the cost of traditional feedstuffs. A trial was conducted to determine the efficacy of feeding a moderately priced, commercially-available ration of dried bakery waste and broiler litter, on the growth, carcass merit, and value of culled beef cows. Culled beef cows of similar genetics were received from a single ranch, then stratified by body weight and condition scores to 1 of 4 days of feeding (DOF; 0, 42, 69, or 98) within 8 pens. Cows were fed up to 20 lb/cow of the by-product ration, and offered ad libitum access to bermudagrass hay during their allotted DOF, prior to slaughter. Average daily gain was greater (3.3 lb/day) for the feeding period from day 1-42 than from day 43-69 or day 70-98 (1.3 and 2.4 lb/day, respectively). Carcasses of cows given 98 DOF had greater USDA marbling scores than cows given any other DOF. Cooked loin steaks from carcasses of cows given 98 or 69 DOF were more tender than steaks from cows given 42 DOF. The increased hot carcass weights of cows fed for 42 days was of greater economic value than the lean quality and tenderness improvements seen when cows were fed for 69 or 98 days.