17 The use of lactic acid meat cultures in a commercial beef processing facility – shelf life characteristics. J. A. Collins*, J. C. Brooks, M. M. Brashears, and M. F. Miller, *Texas Tech University*, *Lubbock*.

Research at Texas Tech University has shown lactic acid meat cultures effectively reduce *Escherichia coli* O157:H7 and *Salmonella* spp in beef trimmings. The objective of the study was to characterize the shelf life of commercially-produced ground beef from trimmings treated with lactic acid meat cultures. Ground beef chubs representing control and treated trim were produced in a commercial facility and transported to the Gordon W. Davis Meat Science Laboratory at Texas Tech University. The chubs were characterized using objective color values (L*, a* and b*) coupled with trained and consumer color and odor panels. Chubs were evaluated weekly for six weeks. Each week, beef patties were produced from a portion of the chubs and evaluated under simulated retail display on days 0, 2 and 4 of display. Results indicate consumers detected no differences in color and odor between control and treated beef patties during display. Trained panelists were unable to detect differences in lean color or gas production between treated and control chubs. A difference in odor was detected by trained panelists with treated samples exhibiting higher off-odor scores (P = 0.0195) than control samples. Treated samples tended to be characterized more frequently as ″sweet″ and ″sour″ than control samples. No significant differences in chub L*, a* and b* values were observed between treatments. During retail display, treated samples had significantly higher L* values compared to controls, whereas control samples had higher a* values than treated samples. No differences were detected in b* values during retail display. Results indicate consumers were not able to detect differences between control and ground beef patties produced from trimmings treated with lactic acid meat cultures.