22 Effects of conjugated linoleic acid, salt and sodium tripolyphosphate on physical, sensory and instrumental color characteristics of beef striploins. C. W. Rowe*, F. W. Pohlman, A. H. Brown, Jr., Z. B. Johnson, S. H. Whiting, and D. L. Galloway, *University of Arkansas, Division of Agriculture, Department of Animal Science*, *Fayetteville*.

USDA Select striploins (IMPS 180;n=24) were cut into thirds (anterior, medial, and posterior) and assigned to one of eight treatments utilizing a randomized incomplete block design. Treatments included: 1) Control (C); 2) 1.5% CLA (CL); 3); 0.4% Sodium tripolyphosphate (PHO); 4) 0.5% Salt (SAL); 5) 0.4% sodium tripolyphosphate, 0.5% salt (SPH); 6) 0.4% sodium tripolyphosphate, 1.5% CLA (PCL); 7) 0.5% salt, 1.5% CLA (SCL) and 8) 0.4% sodium tripolyphosphate, 0.5% salt, 1.5% CLA (SPC). The treatment CL was not different ($P > 0.05$) from CON, which had the greatest ($P < 0.05$) amount of purge. The treatment CL was also not different ($P > 0.05$) from all other treatments for retail purge. Treatments with CLA had higher ($P < 0.05$) marbling scores than treatments that did not. Not including SAL, treatments with salt, or phosphate or a combination of the two had greater ($P < 0.05$) tenderness values when sampled by panelist. Fresh steaks with inclusion of CLA had ($P < 0.05$) greater amounts of the CLA isomers than steaks not having CLA added. Cooked steaks having CLA also had greater amounts ($P < 0.05$) of CLA, except for SCL, which were not different ($P > 0.05$) from the non-CLA treatments. Day was a significant source of variation for a*, b*, and saturation index. Treatment PHO and CON were not different ($P > 0.05$) but had higher ($P < 0.05$) a* values than the other treatments. Treatment x day interactions were significant ($P < 0.05$) for hue angle and L* values. Although not significant ($P > 0.05$), treatments having CLA allowed for greater numerical mean values for L*. These data suggest that inclusion of CLA can increase amounts of CLA isomers without major deleterious effects to instrumental, physical and quality characteristics of beef striploin steaks.