Abstract: In a randomized complete block design, 59 Angus-cross finishing steers were used to evaluate the effects of benzoic acid, active dry Saccharomyces cerevisiae, or a combination of both when supplemented in a high-grain finishing diet on meat quality and sensory evaluation of longissimus steaks. Steers were fed a high-moisture corn-based finishing diet for 106 d containing: no supplementation (CON), 0.5% benzoic acid (ACD), 3 g/head/d active S. cerevisiae (YST), or both (0.5% benzoic acid and 3 g/head/d S. cerevisiae (AY)). Cattle were humanely slaughtered at a commercial facility where 54 rib sections (CON; n=15, ACD; n=14, YST; n=15, and AY; n=11) were retrieved and used for evaluation of meat quality and trained sensory parameters. Statistical analysis was completed using PROC GLIMMIX of SAS. Longissimus pH, proximate composition, shear force, and cooking loss did not differ between treatments (P ≥ 0.10). Although no differences in lipid oxidation was detected at the beginning of the retail display (d 0), lipid oxidation levels were greater (P = 0.02) in CON vs. A Y steaks following 12 days of retail display. Some colour parameters differed (P ≤ 0.04) among treatments on days 11 (L*) and 12 (a*, L*, and discolouration) of the retail display. Although dietary treatment did not impact fatty acid profiles for longissimus muscle, n-6:n-3 polyunsaturated fatty acids ratios were greater in CON and YST than in ACD longissimus (P = 0.007). Steaks from Combination (AY) supplemented steers were chewier than steaks from steers only supplemented with benzoic acid, while juiciness, tenderness, and flavour were not impacted by supplementation. These results suggest that supplementation with benzoic acid and/or yeast does not have a substantial impact on meat quality or sensory traits.

**Keywords:** benzoic acid, Saccharomyces cerevisiae, meat quality

---

Abstract: The objectives were to evaluate the effects of lysophospholipids supplementation on growth performance and carcass traits of finishing beef steers. Simmental x Angus steers (n = 126; BW 246 ± 30.8 kg) from two contemporary groups were utilized in a randomized complete block design. Steers were blocked by BW, stratified by sire and source herd, and allotted into 21 pens with 6 steers each. Pens (7 pens per treatment) were randomly assigned to 1 of 3 dietary treatments: 0 g (LPL0), 5 g (LPL5) or 10 g (LPL10) of lysophospholipids per steer daily (Lipidol® Ultra; Pathways Intermediates USA, LLC). Treatments were delivered via a ground corn-based supplement (0.45 kg/hd) which was added to a dry rolled corn-based finishing ration fed in GrowSafe bunks. After 210 days, steers were slaughtered at a commercial abattoir. Data were analyzed using MIXED procedure of SAS 9.4 with fixed effects of dietary treatment and block, and random effects of herd source and pen nested within treatment. Overall, final BW was greater (P = 0.01) in steers fed LPL5 (651 kg) and LPL10 (648 kg) compared with LPL0 (627 kg). Moreover, steers fed LPL0 had decreased (P = 0.01) ADG compared with LPL5 and LPL10. No treatment differences were observed in dry matter intake or gain:feed (P > 0.16). Steers fed LPL5 (399 kg) and LPL10 (399 kg) had increased (P = 0.05) hot carcass weight compared with those fed LPL0 (387 kg). Additionally, steers fed LPL10 tended to have a greater (P = 0.06) dressing percentage than LPL5. In conclusion, lysophospholipids fed at 5 or 10 g per steer daily increased growth performance and hot carcass weight in finishing beef steers.

**Keywords:** feedlot, lysophospholipids, Lipidol