Effect of Coconut Oil on Growth Performance, Carcass Characteristics and End-Product Palatability in Finishing Beef Cattle

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ABSTRACT: The objective of this experiment was to investigate the effect of coconut oil on performance, carcass traits and end-product palatability in finishing cattle. After receiving a forage-based growing diet for 107 d, 12 Angus crossbred steers (421 kg ± 18.8 initial BW) were adapted to a finishing diet during a 21-d period. Steers were randomly assigned diets comprised of (dry basis) 26.8% barley, 39.1% corn, 15% dried distillers grain plus solubles, 10% alfalfa hay, 5% supplement, and 4.1% lipid from either beef tallow or coconut oil. Steers were individually fed their respective treatment for 77 d. At the conclusion of the feeding period, steers were harvested and complete carcass data was collected in addition to one boneless strip loin from each carcass. Strip loin steaks were evaluated for Warner-Bratzler shear force, and tenderness, juiciness, flavor, off-flavor, and overall acceptability by a 12-member trained sensory panel. Final BW (P=0.23) and ADG (P=0.18) were similar between steers fed different fat sources; however, HCW (P=0.07) and backfat (P=0.09) tended to be greater for steers fed tallow compared with coconut oil. Tallow fed steers had greater (P=0.05) dressing percentage compared with coconut oil fed steers. Effect of fat treatment on mechanical shear force (P=0.63) and sensory panel evaluations (P=0.45) were not detected. In conclusion, addition of coconut oil to a finishing diet can be included without negatively affecting growth performance, carcass characteristics, or end-product palatability.

Key words: beef cattle, growth performance, coconut oil