Abstract: Steam-flaked corn (SFC) is becoming more common in Northern Plains and Midwest feeding areas. While performance benefits of feeding wet (WDGS) or modified (MDGS) distillers grains are well documented in diets with dry-rolled or high-moisture corn, fewer data are available evaluating distillers grains in SFC-based diets. Therefore, the objective of this study was to evaluate performance when feeding WDGS or MDGS at increasing inclusions in SFC-based finishing diets. Crossbred steers (n = 560; initial BW = 299 kg; SD = 15 kg) were utilized in a 2 × 3 + 1 factorial design with factors consisting of 2 distillers types (MDGS or WDGS) fed at 1 of 3 inclusions (10%, 20%, or 30%) replacing SFC on a dry matter (DM) basis. A 0% distillers treatment was used for determining type by inclusion interactions. An interaction between type and inclusion of distillers was observed for dry matter intake (DMI; P = 0.06) and feed efficiency (G:F; P = 0.02). Intake for steers fed WDGS tended to quadratically increase (P = 0.08), while steers fed MDGS had a more dramatic linear increase (P < 0.01) in DMI. Increasing WDGS inclusion resulted in a linear increase in G:F (P = 0.01), whereas increasing MDGS inclusion had no effect on G:F (P = 0.16). No interaction between type and inclusion of distillers grains for other variables (P > 0.20). Feeding distillers grains, regardless of type, resulted in linear increases in daily gain (ADG), hot carcass weight, and backfat (P ≤ 0.03). Control cattle gained 1.73 kg/d while cattle fed 30% MDGS and WDGS had ADG of 1.88 kg/d and 1.90 kg/d, respectively. Overall, gain of calf-fed steers was improved when distillers grains was increased in steam-flaked corn based finishing diets regardless of type, but G:F was increased with WDGS and not MDGS suggesting feeding WDGS provides more energy than MDGS in SFC-based diets.

**Keywords:** distillers grains plus solubles, finishing cattle, steam flaked corn

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Abstract: Evaluation of new bran products are necessary for continual improvement of wet milling feeds used by the cattle industry. The objective of this study was to evaluate 3 novel corn bran products from Cargill Corn Milling on rumen fermentation and nutrient digestion in beef cattle. Eight ruminally fistulated beef steers were utilized in a 4×4 replicated Latin Square design with 4 dietary treatments and 4 periods (21 d in length for each period with 14 d of adaptation and 7 d of collection). Four treatment diets were bran products (Bran A/B/C) included at 70% of diet dry matter (DM) with 25% steam flaked corn (SFC), and an internal control (SFC control) diet (70% SFC) and 25% Sweet Bran, with 5% wheat straw in all 4 diets. The SFC control exhibited the greatest DM, organic matter (OM) and starch digestibility (P ≤ 0.06), and the least neutral detergent fiber (NDF) digestibility (P < 0.01). When 3 bran products each included at 70%, there was no difference in DM or OM intake and digestibility. Starch and NDF digestibility were greatest (P < 0.01) for bran A fed steers, least for bran C with bran B intermediate. Bran products had minimal effect on energy digestibility, ruminal pH, rumination activity and jugular vein blood parameters. Total ruminal VFAs concentration was greatest (P = 0.04) for SFC control, with no difference among bran A, B and C fed steers. Acetate: Propionate ratio was least (P < 0.01) for SFC control fed steers, greatest for bran A with bran B and C being intermediate. Digestion trait differences existed among different corn bran products, of which feeding bran A resulted in better digestion of starch and NDF, and greater starch content of bran B and C resulted in greater ruminal propionate production.

**Keywords:** corn bran, fermentation profile, nutrient digestion