

## **Effect of feeding diets containing corn dried distillers grains with solubles (DDGS) with and without tallow on bacon yield and quality.**

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This study evaluated the effects of diets containing 30% DDGS with or without 5% tallow fed to grower-finisher pigs on bacon yield and quality. Crossbred pigs ( $n = 315$ ) were blocked by initial BW ( $32.4 \pm 1.89$  kg) and fed one of 4 diets in a 3-phase feeding program using a  $2 \times 2$  factorial arrangement. Dietary treatments consisted of a conventional corn-soybean meal diet (C), C with 5% tallow (T), C with 30% DDGS (D), or C with T and D (DT). Pigs were randomly assigned to one of 40 pens (10 pens/trt; 7–8 pigs/pen) and one pig closest to the mean weight in each pen ( $n = 20$  barrows and 20 gilts) was selected and harvested, with the anterior half of each belly selected for processing and analysis. Bellies were cured, tumbled, smoked, and sliced at 9 slices per 2.54 cm. Weights were taken pre- and post-tumbling, post-smoking, and post-slicing. Sliced slabs were divided into 5 equal sections. The first 2 slices serially from the anterior end of each section were evaluated for shatter analysis using a subjective scale of 1 to 6 (1 = no shatter; 6 = extreme shatter). Two more slices from each section were saved for cook loss, cook shrink and cook distortion determinations. Slices were cooked on a  $157^{\circ}\text{C}$  surface to target  $\leq 40\%$  loss of the original weight. Cook shrink was determined by measuring slice length pre- and post-cooking. Cook distortion was evaluated using a subjective scale of 1 to 5 (1 = no distortion; 5 = severe distortion). Bellies from DT were heavier ( $P = 0.02$ ) than D bellies. Bellies from T ( $P = 0.04$ ) and D ( $P = 0.03$ ) weighed less post-tumbling than DT bellies. Smokehouse yield was lower for D bellies ( $P = 0.04$ ) compared with DT bellies and D bacon had higher ( $P = 0.04$ ) shatter scores than C bacon. No differences were found in slicing yield, distortion, cook loss or cook shrink among treatments. Although there were small differences in belly yields, slicing yield and bacon quality characteristics were unaffected by including 30% DDGS with or without 5% tallow in swine grower-finisher diets.

**Key words:** DDGS, bacon, tallow