greater ($P = 0.03$) FBW than HFE while ADG was unaffected ($P \geq 0.2$) by FE classification, but among G-Rough steers, HFE and MFE had greater ($P \leq 0.04$) FBW and ADG than LFE. Among G-Corn steers, LFE had greater ($P \leq 0.003$) DMI than MFE and HFE, but DMI was unaffected ($P \geq 0.3$) by FE classification among G-Rough steers. Overall, differences in finishing phase G:F between FE classifications were driven by different factors depending on diet; DMI differed among corn-grown steers and ADG differed among roughage-grown steers. In this study, FE was repeatable from the growing to the finishing phase.

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126 Effects of grinding corn through a 2-, 3-, or 4-high roller mill on milling characteristics, and finishing pig growth performance and carcass characteristics. J. T. Gebhardt[1,*], M. D. Tokach[1], J. C. Woodworth[1], J. M. DeRouchey[1], R. D. Goodband[1], K. F. Coble[2], C. R. Stark[1], C. K. Jones[1], S. S. Dritz[1], [1]*Kansas State University, Manhattan,* [2]*New Fashion Pork, Jackson, MN.*

Finishing pigs ($n = 922$, initial BW = 40.1 kg) were used in a 97-d experiment to determine the effects of grinding corn through various roller mill configurations on milling characteristics and growth performance and carcass characteristics of finishing pigs in a commercial setting. Pens were randomly allotted to 1 of 4 experimental treatments by initial BW with 11 pens/treatment and 21 pigs/pen. All diets were fed in 5 phases with the same corn-soybean meal-based diets containing 20% dried distiller's grains with solubles. Experimental treatments included corn ground to 685 μm using 2 sets of rolls (2-high), corn ground to 577 μm using 3 sets of rolls (3-high), corn ground to 360 μm using 4 sets of rolls in a fine grind configuration (4-high fine), and corn ground to 466 μm using 4 sets of rolls in a coarse grind configuration (4-high coarse). The same roller mill was used for all configurations with the appropriate lower rolls completely open when using 2 or 3 sets of rolls. Grinding rate (tonnes/hour) was greatest ($P < 0.05$) for the 2-high and 4-high coarse configurations followed by the 3-high configuration and lowest for the 4-high fine configuration. Electricity cost was lowest ($P < 0.05$) per tonne of ground corn for the 2-high configuration and was greatest for the 4-high fine configuration. Pigs fed diets containing corn ground with the 2-high configuration had the greatest ($P < 0.05$) ADFI and ADG with pigs fed diets with corn ground using the 4-high fine configuration having the poorest ADFI and ADG (2.81, 2.73, 2.65, 2.73 kg for ADFI and 0.987, 0.967, 0.940, 0.971 kg for ADG for 2-high, 3-high, 4-high fine, 4-high coarse, respectively). There were no differences in G:F, caloric efficiency, or carcass characteristics among pigs fed diets ground with the different roller mill configurations. Feed cost/kg gain was lowest ($P < 0.05$) for the 4-high coarse configuration and

revenue/pig was greatest ($P < 0.05$) for the 2-high and 4-high coarse configurations. Income over feed cost (IOFC) was lowest ($P < 0.05$) for pigs fed diets with corn ground using the 4-high fine configuration; however, there were no differences in IOFC among the other milling configurations. In our study, roller mill configuration had a significant impact on grinding electricity cost, grinding rate, as well as ADFI and ADG; however, roller mill configuration had no impact on G:F.

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127 Pork quality: 2015 national retail benchmarking study. L. A. Bachmeier[1,*], S. J. Moeller[2], C. Carr[3], J. M. Young[1], X. Sun[1], J. H. Liu[1], S. B. Schauunaman[1], D. J. Newman[1], [1]*North Dakota State University, Fargo,* [2]*The Ohio State University, Columbus,* [3]*University of Florida, Gainesville.*

The purpose of this benchmarking study is to quantify pork quality variation in the retail self-serve meat case and provide information that can be used to implement changes necessary to meet the National Pork Board SMART objective of reducing pork having a subjective color score of 1 or 2 by 10% by the year 2020. The objective of this study was to benchmark pork quality from the top 3 major retailers and supermarkets in each market area across the United States according to the 2013 Progressive Grocer Marketing Guidebook (Stagnito Media, 2013). A total of 133 retail supermarkets, representing 28 market areas from 23 states were selected for the study. Samples were collected between January 2015 and April 2015 to eliminate seasonal variation. An experienced grader analyzed subjective color and marbling scores according to the National Pork Board Color and Marbling Standards (NPB, 2011) and various quality defects (bruising, blood splash, bone dust) in the meat retail case. Ten center-cut loin chop packages for each brand and enhancement type (enhanced and non-enhanced) were purchased. After purchase, samples were shipped to North Dakota State University for subjective and instrumental parameters for evaluation of subjective color, subjective marbling, instrumental color (CIE L*, a*, and b* color space values), pH, cook-loss percentage, and tenderness as determined by the Warner-Bratzler shear force method. Data were analyzed using the means and mixed procedures in SAS (SAS Institute, Cary, NY). Mean subjective color score values were 2.85 ± 0.79 for in store evaluation and 2.74 ± 0.79 for in laboratory evaluation. Mean subjective marbling score values were 2.30 ± 1.07 for in store evaluation and 2.27 ± 1.02 for in laboratory evaluation of subjective marbling. Mean instrumental color values were 55.56 ± 3.63 for L*, $16.60 \pm$