in a coarse grind configuration (4-high coarse). In Exp. 2, 90 pigs (PIC 327 × 200; initial BW = 12.2 kg) were randomly allotted to 1 of 3 diet comparisons to determine feed preference. The 3 diets compared were the 2-high, 4-high fine, and 4-high coarse configurations. Each pen contained 2 feeders, each containing 1 of the 3 treatment diets. Feeders were rotated once daily within each pen for the 7-d study, with 5 pigs per pen, and 6 pens per comparison. In Exp. 1, there were no differences in ADG, ADFI or G:F between roller mill configurations. Similarly, no differences were observed for caloric efficiency or economics among roller mill configurations. In Exp. 2, when given a choice, pigs consumed 67% ($P < 0.05$) of the diet containing corn ground through the 2-high roller mill when compared to the diet containing 4-high fine corn. There was no difference in feed consumption comparing diets with 2-high roller mill corn or corn from the 4-high roller mill in a coarse configuration. When comparing corn from the two 4-high configurations, pigs consumed 63% ($P < 0.05$) of the diet manufactured in the coarse configuration and 37% when manufactured in the fine grind configuration. When given a choice, pigs preferred diets manufactured using a mill configuration producing coarser ground corn (490 to 650 µm) to fine ground corn (340 µm); however, roller mill configuration did not affect performance.

Key Words: roller mill, nursery pigs, feed preference
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216 Coating dog kibble with a commercial liquid acidifier reduces the risk of *Salmonella* cross-contamination. A. R. Huss*[1], A. Deliephan[1], J. C. Fuller, Jr.[2], C. K. Jones[1], [1]*Kansas State University, Manhattan,* [2]*Metabolic Technologies Inc, Ames, IA.*

In recent years, several pet food recalls have been attributed to *Salmonella* contamination. In addition to the negative impacts on animal health, pet foods contaminated with *Salmonella* have been linked to infection in humans. To help reduce the risks to humans, the Food and Drug Administration has set forth a zero-tolerance policy for *Salmonella* in pet foods. Typically, the preconditioner and extruder operate at sufficient temperatures to destroy pathogenic bacteria. However, there is the potential for post-processing cross-contamination to adulterate the product. One potential method to reduce the risk of *Salmonella* cross-contamination in pet foods is through the addition of chemical additive coatings. The objective of this research was to evaluate the ability of the liquid acid, β-hydroxy-β-methylbutyric acid (HMB; Metabolic Technologies Inc, Ames, IA), to reduce cross-contamination of dry extruded dog kibble with *Salmonella*. Liquid HMB was applied to a single formula of dog kibble at inclusion levels of 0, 0.9 and 1.5% (w:w) using a laboratory-scale mixer. The coated kibbles were then inoculated with *Salmonella enterica* subsp. *enterica* Serovar Enteritidis (ATCC 13076), grown in trypticase soy broth (TSB). Inoculated kibbles were enumerated for *Salmonella* on d 0, 1, 2, 7, and 14 post-inoculation. For enumerations, a subsample was collected, serial diluted and spread plated to Xylose Lysine Deoxycholate (XLD) agar. All inoculated plates were incubated at 37°C for 24 h, after which black colonies, typical for *Salmonella*, were counted and cfu/g calculated. The effects of HMB concentration, enumeration day and their interaction were all significant ($P < 0.0001$) on the resulting *Salmonella* concentration. *Salmonella* counts from Day 0 were 6.99, 5.59, and 4.88 $\log_{10}$ cfu/g for 0, 0.9 and 1.5% HMB, respectively. For HMB levels of 0.9 and 1.5%, counts were below the detectable limit for d 1, 2, 7, and 14. For 0% HMB, the *Salmonella* counts were found to decrease over time to 4.80, 3.99, 2.80, and 3.14 $\log_{10}$ cfu/g for d 1, 2, 7, and 14, respectively. Overall, the HMB coating was effective at reducing *Salmonella* artificially inoculated to dog kibbles. Further research is warranted to evaluate the minimum effective dose of HMB to reduce *Salmonella* in dog and cat kibbles.

Key Words: Salmonella, cross-contamination, petfood
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217 Proof-of-concept method to sanitize a feed mill contaminated with Porcine Epidemic Diarrhea Virus. A. R. Huss*, L. L. Schumacher, R. A. Cochrane, E. Poulsen, J. F. Bai, J. C. Woodworth, S. S. Dritz, C. R. Stark, C. K. Jones, *Kansas State University, Manhattan.*

Porcine Epidemic Diarrhea Virus (PEDV) has been linked to transmission by livestock feed or ingredients. Measures to exclude pathogens, prevent cross-contamination, and actively reduce the pathogenic load of feed and ingredients are being developed. However, research thus far has focused on the role of chemicals or thermal treatment to reduce PEDV RNA in feedstuffs, and has not addressed potential residual contamination within the manufacturing facility that may lead to continuous cross-contamination of finished feeds. The objective of this experiment was to evaluate the use of a standardized protocol to sanitize an animal feed manufacturing facility contaminated with PEDV. Environmental swabs were collected throughout the facility during the manufacturing of a swine diet inoculated with PEDV. To monitor facility contamination of the virus, swabs were collected at 5 decontamination steps: 1) baseline before inoculation, 2) after production of the inoculated feed, 3) after application of a quaternary ammonium-glutaraldehyde blend cleaner, 4) after application of a sodium hypochlorite sanitizing solution, and 5) after facility heat-up to 60°C for 48 h. The feed mill was contaminated and decontaminated 3 separate times for a total of 3 replications. Collected swabs were analyzed via RT-qPCR and categorized by surface (plastic, rubber, concrete, and metal), type (equipment and structural), and zone (1, 2, and 3). Decontamination step, surface, type, zone and their interactions were all found to impact the quantity of detectable PEDV RNA ($P < 0.05$). As expected, all samples collected from direct feed contact