

792 Effect of Sal CURB on digestibility of energy and nutrients by growing pigs. Yanhong Liu* and Hans H. Stein, *Department of Animal Sciences, University of Illinois, Urbana, IL.*

Sal CURB brand ASF liquid antimicrobial is a blend of aqueous formaldehyde 37% solution and propionic acid. An experiment was conducted to determine the effects of Sal CURB on apparent total-tract digestibility (ATTD) of energy, Ca, and P, and apparent ileal digestibility (AID) of CP and AA in a diet fed to growing pigs. Eight barrows (initial BW: 26.81 ± 1.77 kg) had a T-cannula installed in the distal ileum and were allotted to a 2-period switch back design with 2 diets and 8 replicates per diet. A saline treated base mix or a Sal CURB treated base mix was added to the diet that were based on corn, soybean meal, distillers dried grains with solubles, and oats (10.0%). Each period lasted 7 d and fecal samples were collected on d 5 and 6 and ileal digesta were collected

on d 6 and 7 of each period. Three random samples from each of the 2 base mixes were analyzed for phytase and vitamins on d 0, 7, 28, and 49 after sampling to determine stability of vitamins and phytase in the base mixes. Data were analyzed by ANOVA using PROC MIXED of SAS in a randomized complete block design with diet as fixed effect and pig and period as random effects. Pigs fed Sal CURB diet had greater ($P < 0.05$) ATTD of Ca (69.33%) and P (61.72%) than pigs fed the control diet (63.80 and 57.53%, respectively). No differences were observed in the ATTD of DM and GE and the AID of CP and all AA between the control diet and the Sal CURB diet, with the exception that the AID of Met was greater ($P < 0.05$) in the Sal CURB diet (89.56%) than in the control diet (88.41%). The Sal CURB treated base mix contained less ($P < 0.05$) phytase than the saline treated base mix on d 0, 7, 28, and 49. The Sal CURB treated base mix contained more ($P < 0.05$) vitamin B3 and B9 on d 0, more ($P < 0.05$) vitamin B1 on d 28, and more ($P < 0.05$) vitamin B1, B2, and D3 on d 49, compared with the saline treated base mix. In conclusion, supplementation of Sal CURB to diets for growing pigs does not affect the digestibility of energy and AA, but increases the digestibility of Ca and P in phytase containing diets. However, Sal CURB treatment reduces the concentration in the base mix of phytase by approximately 20%, but concentrations of vitamins are not reduced.

Key Words: digestibility, pigs, Sal CURB