
325 Effects of Different Levels of Full Fat Rice Bran or Defatted Rice Bran on Growth Performance and Carcass Quality of Pigs. G. A. Casas*¹, H. H. Stein², ¹*Universidad Nacional de Colombia, Bogota, Colombia,* ²*University of Illinois at Urbana-Champaign, Urbana, IL*

The objective was to test the hypothesis that increasing inclusion of full fat rice bran (FFRB) or defatted rice bran (DFRB) are not detrimental to growth or carcass characteristics, fresh meat quality, or fat quality when

fed to growing-finishing pigs. A total of 224 barrows and gilts were randomly allotted to 7 treatments. Pigs had an average initial BW of 28.2 ± 4.1 kg. A 3 phase feeding program was used. A basal diet containing corn and soybean meal, 3 diets containing 10, 20, or 30% FFRB and 3 diets containing 10, 20, or 30% DFRB were formulated within each phase. Daily feed allotments and pig BW at the start of the experiment and at the conclusion of each phase were recorded. On the last d of the experiment, 1 pig per pen was harvested. Carcass, fresh meat and fat quality was determined. For the overall experimental period, ADG was 0.942 kg on average, and no effects of dietary treatments were observed on ADG. The ADFI decreased from 2.61 to 2.42kg (linear, $P < 0.05$) and G:F increased linearly ($P < 0.05$) from 0.368 to 0.388 for pigs fed diets with increasing concentrations of FFRB. The ADFI of pigs fed diets containing DFRB increased linearly ($P < 0.05$) from 2.60 to 2.73 kg, but G:F decreased (linear, $P < 0.05$) from 0.368 to 0.342. There were no effects of dietary treatments on carcass or meat quality. The length of the bellies decreased (linear, $P < 0.05$; quadratic, $P < 0.05$) from 68.9 to 66.0 cm as the inclusion of FFRB or DFRB increased in the diets. The concentration of crude fat in adipose tissue of pigs fed diets containing FFRB increased linearly ($P < 0.05$) from 71.6 to 81.5%, but decreased (linear, $P < 0.05$) from 82.1 to 71.6% in pigs fed diets containing DFRB. The concentration of SFA in adipose tissue of pigs fed diets containing FFRB decreased (linear, $P < 0.05$) from 36.2 to 30.5%, whereas the concentration of PUFA increased (linear, $P < 0.05$) from 13.9 to 22.5%. In contrast, addition of DFRB did not affect the concentration of fatty acids in adipose tissue. In conclusion, 30% FFRB included in diets for growing-finishing pigs may improve growth performance without affecting carcass characteristics or meat quality with the exception that PUFA in adipose tissue will increase, but increasing DFRB will reduce G:F without affecting composition of adipose tissue.

Key Words: fat quality, rice coproducts, growth performance