

**W194 Importance of evaluating piglet daily weight gain during the first week after weaning.** G. J. M. M. Lima\* and L. S. Lopes, *Embrapa, Brazil.*

Performance after weaning is crucial for pig growth. There are few reports describing ADG over the first wk after weaning. Some individuals show low gains while others lose weight (wt) during this period, providing highly variable results. To study wt gain during the first wk after weaning, an experiment was conducted to determine the effects of 4 combinations of lactose sources with or without growth promoter (GP): T1 = whey - GP; T2 = whey + GP; T3 = lactose + GP; T4 = whey permeate + GP. Ninety-six pigs ( $7.10 \pm 0.12$  kg) were weaned at 21 d of age and distributed to pens according to a random block design with 8 replicates of 3 animals. Diets met or exceeded 1998 NRC levels and pigs had free access to feed and water. Animals were weighed daily and had no clinical signs of diseases. Diarrhea frequencies were similar among diets (X2 test,  $P = 0.69$ ). Overall average pig wt ( $n = 96$ ) at d 22, 23, 24, 25, 26, 27 and 28 were 6.90, 6.88, 6.98, 7.17, 7.25, 7.33 and 7.50 kg, respectively, with coefficients of variation (CV) from 11.72 to 12.66%. However, overall average individual ADG for this period were, respectively,  $-0.205$ ,  $-0.022$ ,  $0.102$ ,  $0.184$ ,  $0.084$ ,  $0.079$  and  $0.165$  kg, with CV ranging from  $-818.31$  to  $281.17\%$ . There were no differences in ADG among treatments by ANOVA for any d ( $P > 0.35$ ) or for the first wk period ( $0.055$  kg/d, CV =  $123.92\%$ ,  $P = 0.46$ ). A diet effect was detected when all individual ADG were combined through multivariate analysis ( $P = 0.15$  by Wilks' Lambda test and  $P = 0.002$  by Roy's test). Overall frequencies of negative, zero and positive ADG in the first wk period were 16.73, 3.00 and 80.27%, respectively, and there were differences among diets ( $P = 0.03$ , X2 test). It was detected that T1 (without GP) showed more animals with negative gain in the first wk compared with other treatments ( $P < 0.05$ , X2 test). It is important to study ADG during the first wk after weaning in these experiments. Multivariate analysis and frequency study of ADG provides useful information for a better understanding of this critical period for pigs.

**Key words:** Swine, multivariate analysis, X2 test