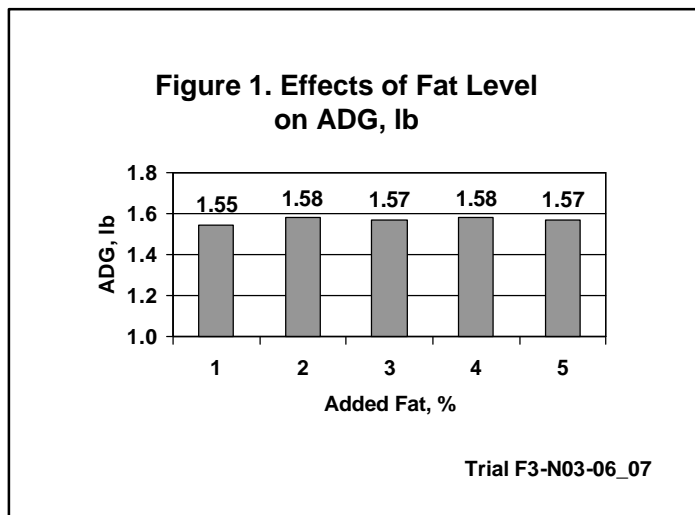
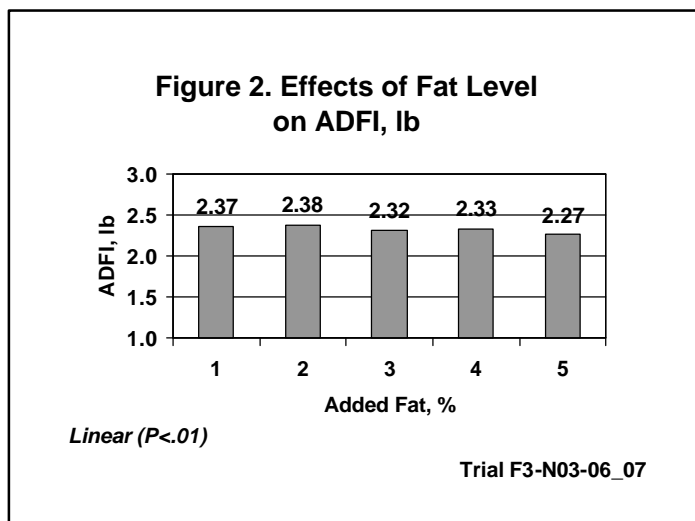


Fat Levels in Late Starter Diets

Energy sources are the biggest contributor to feed costs in swine diets. There has been a lot of interest in fat levels in late starter diets, with producers striving to optimize pig performance at the lowest feed cost per pound of weight gained. In general, when fat is economical to add to swine diets (i.e., fat:corn price ratio of 3.5:1 or less), Akey has recommended 3 to 4% added fat in late phase nursery diets. We decided to conduct two trials in our commercial research nursery to validate this recommendation using high health, high lean genotype pigs.

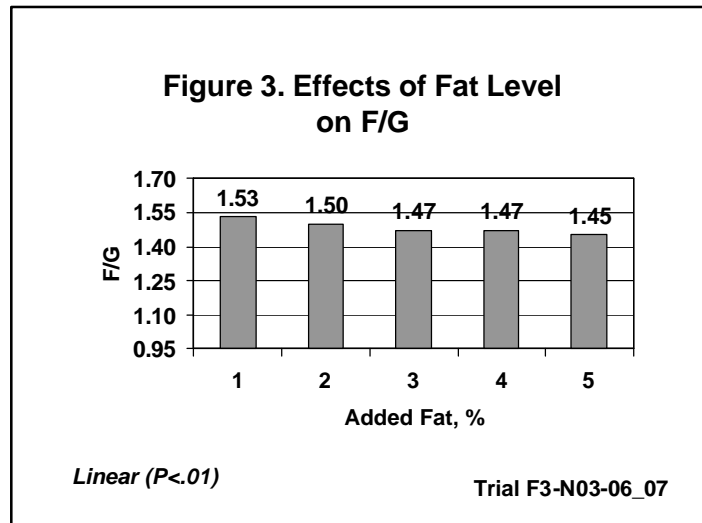


A total of 1760 pigs were used in two experiments to evaluate dietary fat additions of 1, 2, 3, 4, or 5% on growth performance of pigs from 31 to 68 lb body weight. The ratio of lysine to metabolizable energy (ME) was maintained in all treatments. Pigs were randomly assigned to pens within gender and fed the test diets ad libitum for the 23.5-day trials. There were no effects of experiment or gender on any of the parameters measured, so data are presented as pooled least squared means.

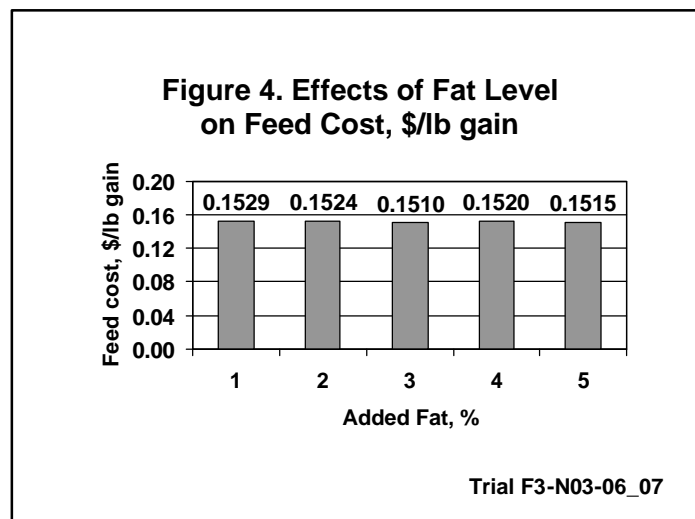


We saw no impact of added dietary fat on ADG from 31 to 68 lb body weight (Figure 1). Pigs gained at a very high rate during the experimental period, averaging almost 1.60 lb/d. We detected a significant decrease in ADFI with increasing levels of dietary fat (Figure 2), with the bulk of the response occurring at 3% added fat or higher. Since ADG was not affected but ADFI decreased, this resulted in a linear improvement in F/G ratio (Figure 3).

The largest improvements in F/G ratio occurred when we increased the fat level from 1 to 3%, with the response tending to plateau after 3% added fat (Figure 3). Thus, we start to see a diminishing return to added fat when levels exceed 3% added.



In terms of feed cost/lb of weight gained, we saw no differences between the five added fat levels (Figure 4). Numerically, pigs fed 3% added fat had the lowest feed cost per pound of weight gained in this study.



Based on these data, when it is economical to feed fat in the diets of late phase nursery pigs, it appears that 3% added fat gave the best response. Feeding higher than 3% added fat continued to improve F/G ratio, but the magnitude of the response was smaller than at lower fat levels.