



Australasian Pork Research Institute Ltd APRIL

PROJECT SUMMARY

Project Number and Title: A3A-104 Feeding a single diet versus phase feeding to pigs in the growing-finishing phase.

Project Leader: Robert Hewitt, SunPork Solutions

Project Participants: Marcela Sampaio, Andres Corso, Sally Tritton

Aims and Objectives: The project seeks to verify the results and outcomes from a previous APRIL-funded project (3A-103: *Feeding a single diet to pigs in the grower/finisher stage to reduce feed costs and improve feed efficiency*), using pigs of a different genotype kept under different management and feeding conditions. We hypothesised that single diet feeding programs would not change the growth and carcass characteristics of grow-finisher pigs compared to traditional phase feeding.

Experimental design (if applicable): Grower pigs (~70 d of age, 50:50 female/immunocastrate male) were allocated to one of three treatments using a randomised block design, with *ad libitum* access to feed and water. Treatments consisted of a *Control* standard phase feeding program with 3 diet changes (Grower 25-50 kg, Porker 50-70 kg, Finisher 70+ kg), a *Single 50* treatment feeding the Porker diet for the entire period, and a *Single 70* treatment feeding the Finisher diet for the entire period. Growth performance was recorded for 70 d, until first cut made market weight, with pigs marketed over three cuts. Carcass characteristics and days to slaughter were recorded.

Key Findings: This study showed no difference in the performance of pigs fed a single diet formulated for a 50 kg pig compared to the phase-feeding program. Pigs on the single diet formulated for a 70 kg pig had a lower average daily gain and higher FCR during the first phase of the experiment (from 25 to 50 kg live weight), resulting in a statistically significant longer time to reach market weight and a non-statistically but potentially commercially significant increase in back fat depth.

Applications to Industry: The findings from this experiment supports the concept that a traditional three-phase diet feeding program can be replaced by a single diet program with comparable nutrient access, if the correct nutrient specifications are chosen. The most economical specification of the single diet will depend on the restraints and costs of varying market weight and carcass quality.