

An Evaluation of Grain Energy Sources for Growing-Finishing Swine When Supplemented With Field Pea

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General Objectives:

1. To evaluate growth, feed efficiency and carcass performance of growing-finishing pigs fed corn, barley, naked oat, and combinations of corn+barley and naked oat+barley as energy sources in 4-phase diets.
2. To document economic considerations associated with each of the tested energy sources.

Brief Discussion:

In previous swine growing-finishing research at this Center, seasonal growth performance of barrows (n=112) and gilts (n=112) fed either soybean meal or Trapper field pea at two levels of lysine in barley-based diets was evaluated by Landblom and Poland (1997). Field pea was determined to be a suitable replacement for soybean meal when replaced on a percentage of protein basis within each growth phase from 75 to 265 pounds. With the exception of phase-1 (50-80 pound pigs), field pea contained sufficient lysine to maximize efficiency of feed utilization and carcass leanness. Carcass performance was not affected by protein supplement. Interactions between sex, protein source and season fed for feed efficiency, loin depth and fat free lean index suggest that both sexes were more efficient during the summer, that gilts can be expected to be leaner than barrows regardless of season fed, and that

barrows and gilts perform equally well whether fed field pea or soybean meal as protein sources.

Since barley was the only grain tested in the first study, pig response to production, carcass and economic parameters are being evaluated when barley, corn, naked oat and barley+corn and barley+naked oat are formulated with field pea as the source of supplemental protein.

Status:

Results of the project are incomplete at this writing. A full report will be available spring 1998.

[Back to 1998 Research Reports Table of Contents](#)

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