protein was not beneficial in these experiments. Therefore, under most circumstances it would not be profitable to add lysine to corn-soy or barley-soy rations formulated to contain 15 per cent crude protein if these rations are to be fed from 50 pounds to market weight.

Previous research utilizing pigs of lighter initial weight and rations containing lower protein levels (Dinusson, **et al.** 1962, Erickson 1960) indicated that responses to lysine supplementation have occurred in approximately half of the trials reported. These responses have occurred because of the normal variation in lysine content of grains and protein supplements. Response to lysine addition is most likely to occur at weights up to approximately 120 pounds and when low protein rations are fed. Lysine addition is less likely to be beneficial for finishing swine above 120 pounds and in rations containing high protein levels.

Summary

Two experiments involving a total of 96 growing-finishing pigs were conducted to compare corn-soy and barley-soy rations with or without added lysine. Pigs fed corn-soy rations containing 15 per cent crude protein gained slightly more rapidly and more efficiently than those fed comparable barley-soy rations, although the difference in rate of gain was not statistically significant. Pigs receiving the barley rations had less backfat than those fed rations containing corn. Based upon current local prices, rations containing barley were more economical to feed than comparable rations containing corn.

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Agricultural Experiment Station
NORTH DAKOTA STATE UNIVERSITY
of Agriculture and Applied Science
University Station
Fargo, North Dakota 58102
Publication

DIRECTOR

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United States Department of Agriculture

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ENGINEERING DEPARTMENT