

# Effects of Feeding Grow-Finish Pigs Conventional Swine Diets Used in Jalisco, Mexico Compared to Diets Containing 10% Norgold DDGS on Growth Performance.

## Experimental Procedures

A swine growth performance study was conducted in Jalisco, Mexico (Ramiro Martin) to compare growth rate, feed intake and feed conversion of pigs fed conventional grow-finish diets used in Mexico with diets containing 10% Norgold DDGS during two production periods – 30 to 60 kg body weight (grower) and 60 to 100 kg body weight (finisher). A total of 800 pigs were assigned to either the control or Norgold diet during the grower phase, and 600 pigs were assigned to the control or Norgold finisher diets fed from 60 to 100 kg body weight. Pen served as the experimental unit providing 12 replications during the grower phase and 9 replications during the finisher phase. Individual pens housed either 20 or 60 pigs, but pen size was equally distributed across dietary treatments. Pigs were fed experimental diets for 49 days during the grower phase and for 50 days during the finishing phase.

### 30-60 kg feeding period

Average initial weight of pigs allotted to the Norgold diet tended ( $P < .1$ ) to be 1.2 kg heavier at the start of the feeding trial than pigs allotted to the control diet (Table 1). Because of this, data were statistically analyzed using initial weight as a covariate. Although pigs assigned to the Norgold diet tended to be heavier at the start of the trial, it appears that pigs fed the Norgold diet grew faster than pigs fed the control diet ( $P < .0002$ ) because the difference in the final weight of pigs between the control and Norgold diet was 1.7 kg compared to 1.2 kg at the start of the trial. Pigs fed the Norgold diet tended to consume more feed ( $P < .12$ ) and tended to have improved feed conversion ( $P < .13$ ) compared to pigs fed the control diet. Results from this study suggest that feeding growing pigs a diet containing 10 % Norgold will provide at least equal growth performance, if not improved performance compared to feeding a typical control grower diet used in Jalisco, Mexico.

**Table 1. Comparison of growth performance of 30 to 60 kg pigs fed a grower diet containing 10% Norgold vs. a typical control grower diet used in Jalisco, Mexico.**

	30-60 kg			
	Control	Norgold	P value	SE
Initial number of pigs	400	400	-	-
Final number of pigs	400	400	-	-
Replications	12	12	-	-
Avg. initial wt., kg	30.0	31.2	0.10	0.49
ADG, kg	0.61	0.65	0.0002	0.005
Total feed intake/pig, kg	70.0	71.8	0.12	0.75
ADFI, kg	1.43	1.47	0.12	0.015
Feed/Gain	2.33	2.26	0.13	0.030
Avg. final wt., kg	60.7	62.4	.0002	0.25

## 60-100 kg feeding period

Average initial weight of pigs allotted to the Norgold diet was higher ( $P < .001$ ) to be 1.2 kg heavier at the start of the feeding period than pigs allotted to the control diet (Table 2). Because of this, data were statistically analyzed using initial weight as a covariate. Although pigs fed the Norgold diet grew significantly faster ( $P < .01$ ), this difference was due to heavier initial weights of pigs allotted to the Norgold diet compared to pigs allotted to the control diet, because the difference in the final weight between pigs fed the control and Norgold diet was 1.8 kg compared to 1.9 kg at the start of the trial. Pigs fed the Norgold diet consume more feed/pig ( $P < .01$ ) and but there were no difference between dietary treatments for feed conversion ( $P > .79$ ). These results suggest that feeding growing pigs a diet containing 10 % Norgold will provide at least equal growth performance, if not improved performance compared to feeding a typical control grower diet used in Jalisco, Mexico.

**Table 2. Comparison of growth performance of 60 to 100 kg pigs fed a finisher diet containing 10% Norgold vs. a typical control grower diet used in Jalisco, Mexico.**

	60-100 kg			
	Control	Norgold	P value	SE
Initial number of pigs	300	300	-	-
Final number of pigs	300	300	-	-
Replications	9	9	-	-
Avg. initial wt., kg	60.2	62.1	0.001	0.34
ADG, kg	0.71	0.75	0.01	0.007
Total feed intake/pig, kg	105.0	110.8	0.01	1.24
ADFI, kg	2.10	2.22	0.01	0.025
Feed/Gain	2.94	2.97	0.79	0.056
Avg. final wt., kg	96.8	98.6	.01	0.37

## Summary

Results from these studies show that grow-finish pigs grow slightly faster and consume slightly more feed/day when fed practical diets containing 10% Norgold DDGS compared to standard diets used in Jalisco, Mexico. Feed conversion was comparable between pigs fed control and Norgold diets. These data suggest that Norgold can be added to grow-finish swine diets in Mexico to provide at least equal, and perhaps improved growth performance compared to current commercial swine feeding programs.