

TRITICALE AS A SWINE FEED

Triticale, a hybrid grain developed from a cross between durum wheat and rye, contains about 3.5 percent more protein and 4.5 percent less fiber than does barley, the standard hog feed in this area. Triticale as a feed crop is susceptible to ergot and appears to lack somewhat in palatability. Also, yields of triticale have been lower than barley or oats at the Dickinson, Williston, Minot and Fargo Experiment Stations. If triticale is to survive as a feed grain, it will probably be fed to hogs and cattle.

Table 5. Ration Composition and Feed Costs

Ration	Barley-Oats 16% Protein Ration	50% Triticale Ration	75% Triticale Ration
Oats (lbs.)	564	564	426
Barley (lbs.)	1138	288	----
Soybean oilmeal (lbs.)	238	238	238
Triticale (lbs.)	----	850	1276
Di calcium phosphate (lbs.)	24	24	24
Limestone (lbs.)	24	24	24
Trace mineral salt (lbs.)	10	10	10
Vitamin B complex	680 gms.	680 gms.	680 gms.
Vitamin A (20,000 U.S.P. / gm.)	60 gms.	60 gms.	60 gms.
Vitamin D ₃ (200,000 I.C.U. / gm.)	28 gms.	28 gms.	28 gms.
Zinc sulfate	<u>360 gms.</u>	<u>360 gms.</u>	<u>360 gms.</u>
	2000+ lbs.	2000+ lbs.	2000+ lbs.
Cost per ton	\$45.58	\$45.58	\$45.66

This trial was designed to compare feeding triticale in place of barley and oats in a hog finishing ration. The triticale was fed at two levels in the total hog ration as shown in Table 5.

The trial has been carried out for two years, 1969-70 and 1970-71. All feeds were fed in meal form to pigs from approximately 40 pounds to market weight. Table 6 shows the results for two years.

Table 6. Data on Weights and Gains in the Triticale Evaluation Study

Data on:		Barley-Oats 16% Protein Ration	50% Triticale Ration	75% Triticale Ration
Number of pigs per lot	1970	11	11	11
	1971	13	12	13
Initial weight-pounds per lot	1970	520	524	525
	1971	478	436	473
Average weight per pig		<u>41.6</u>	<u>41.7</u>	<u>41.6</u>
<hr/>				
Final weight-pounds per lot	1970	2393	2274	2406
	1971	2721	2443	2697
Average weight per pig		<u>213.1</u>	<u>205.1</u>	<u>212.6</u>
<hr/>				
Weight gain-per lot (lbs.)	1970	1873	1750	1881
	1971	2243	2007	2224
2 Yr. average daily gain per pig (lbs.)		<u>1.32</u>	<u>1.26</u>	<u>1.32</u>
<hr/>				
Pounds of feed-per lot	1970	7300	6910	6730
	1971	8380	8195	9290
Average feed per-hundred pounds gain	1970	389.7	394.9	357.8
	1971	373.6	408.3	417.7
2-Yr. average (lbs.)		<u>381.6</u>	<u>401.6</u>	<u>387.8</u>
<hr/>				
Average cost per-hundred pounds gain	1970	\$9.59	\$9.71	\$8.84
	1971	\$8.52	\$9.31	\$9.52
2-Yr. average		<u>\$9.06</u>	<u>\$9.51</u>	<u>\$9.18</u>

Summary

After two years of feeding, it appears that clean, ergot free triticale can substitute for barley with little difference in expected rate of gain or feed efficiency. The cost per one hundred pounds of gain has been slightly higher over the two years when using triticale. The variation between the two levels of triticale in the ration can probably be best explained as chance variation due to location of pens and individual pig differences.