

SUMMER PASTURE CROPS FOR SWINE

OBJECTIVE:

To compare several pasture crops for growing and fattening spring pigs for market.

PRESENT STATUS:

Pig pasture trials have been conducted for three successive summers at the Dickinson Experiment Station. Eight crops have been tested in this experiment, but only the most promising six crops were used in the 1953 trials. A total of 210 feeder pigs have been used during the three years, and the duration of the pasturing period has ranged from 65 days in 1951 to 107 days in 1953.

Ten pigs were fed in each one acre pasture lot from June 1 to September 15, 1953. All lots were self-fed a ground grain mixture of three parts barley to one part oats, and all pasture lots received the same amount of protein and mineral supplement mixed into the ration. A dry lot used as a check on the pasture lots received the same ration except that the amount of protein supplement was increased.

An additional study which was made a part of the 1953 summer pasture experiment was the comparison of pelleted vs ground ration self-fed and ground ration hand-fed. The rations and pastures were identical; only the form and method of feeding were changed.

[Table VI](#) summarizes the pasture trials of 1953, and for three years.

[Table VII](#) summarizes the pelleted vs ground ration trial.

Results obtained in the 1953 swine pasture trials were the best we have obtained in the three years the trials have been conducted. Incidentally, this was the first year we fed the pigs we raised without having to buy any. Alfalfa is the

most satisfactory pasture crop we have used, for both speed and economy of gains. In this year's trials, there is no

Table VI - Performance of Feeder Pigs on Eight Pasture Crops and in Dry Lot. 1953 and Three Year Average.									
Pasture Crop	Av. Initial Wt. Lbs		Av. Final Wt. Lbs.		Av. Daily Gain Lbs.		Fed per 100 Lb. Gain		1953 Feed Cost - 100 Lb. Gain
	1953	3 yr. Av.	1953	3 yr. Av.	1953	3 yr. Av.	1953	3 yr. Av.	
Alfalfa	53	40	209	151	1.45	1.24	405	344	\$9.56
Winter Wheat	53	40	200	149	1.37	1.21	424	381	10.01
Rape and Oats	53	39	198	145	1.35	1.17	422	377	9.96
Winter Rye	53	39	187	143	1.25	1.16	446	381	10.53
Winter Barley - 2 years	53	43	200	172	1.37	1.30	414	403	9.77
Winter Oats - 2 years	53	43	194	171	1.30	1.29	434	386	10.24
Sudan Grass - 2 years	---	33	---	122	---	1.12	---	359	---
Spring Rye - 2 years	---	34	---	118	---	1.06	---	371	---
Dry Lot	53	39	194	142	1.32	1.15	440	374	11.22

Table VII - Three Methods of Feeding Pigs Like Rations on Like Pasture									

	No. Pigs Per Lot	Days on Trial	Av. Initial Wt.	Av. Final Wt.	Av. Daily Gain	Feed per 100 Lb. Gain	Feed Cost 100 Lb. Gain
Pelleted Ration Self-Fed	10	107	53	225	1.60	401	\$10.25
Ground Ration Self-Fed	10	107	53	198	1.35	422	9.96
Ground Ration Hand-Fed	10	107	53	189	1.27	415	9.79

Ration used in all pasture lots, 1953, first 30 days, and during entire feeding period in dry lot: barley 66 pounds, oats 22 pounds, soybean oil meal 6 pounds, blood meal 3 pounds, and minerals* 3 pounds.

Ration used in all pasture lots after 30 days: barley 69 pounds, oats 23 pounds, soybean oil meal 5 pounds, minerals* 3 pounds.

* Mineral mixture was equal parts steamed bone meal, limestone and iodized salt.

In computing feed costs for the swine feeding trials, the following values were used: barley \$1.00 bushel; Oats \$.75; soybean oil meal \$5.00 cwt.; bloodmeal \$9.00 cwt.; Minerals \$3.00 cwt. Pelleting cost \$4.00 per ton.

significant difference between winter barley, winter wheat, oats and rape in rate of gain. Winter oats and dry lot were also about equal in rate of gain, but the cost of gains was considerably higher in the dry lot than in any pasture lot. Winter rye made the poorest showing in both rate and economy of gains. Spring rye and sudan grass were tried in 1951 and 1952, but showed no particular promise, so they were eliminated in 1953 because there were not enough pigs to make up more lots.

Pelleting our ration of 3:1 barley and oats proved very profitable this year in spite of the fact that the feed cost per 100 pound gain was slightly higher on the pellets than on ground feed. The one-fourth pound per day additional gains on the pellet-fed hogs placed them on an earlier and stronger market.

All spring pigs that had not been marketed or reserved as breeders on September 29 were divided into two lots for a test of hogging-off corn vs self-feeding in dry lot. That 30 day finishing test is summarized in [Table VIII](#).

Table VIII						
	No. Hogs	Av. I Wt.	Av. Final Wt.	Av. Daily Gain	Feed per 100# gain	Feed cost per 100# gain
					(Estimated)	
Hogging-off corn	23	173	194	.70	1320	\$23.57
Self-fed barley and oats 3:1 in dry lot	10	173	212	1.33	529	\$11.85

The hogs in the five acre corn field apparently ran short of corn before the 30 days period was over. At any rate, their gains were disappointing. Corn was valued at \$1.00 bushel and the self-fed ration at \$2.24 cwt.

SUMMARY:

Spring pigs were self-fed a barley and oats ration while grazing one of six one-acre pastures from June 1 to September 15. Alfalfa pasture was the most efficient crop tried in both rate and economy of gains produced. Winter wheat, oats and rape and winter barley were about equal as pig pastures. Winter oats was less satisfactory than the above mentioned crops and winter rye was the poorest crop tested. A group of pigs in dry lot made gains about equal to those on winter oats pasture but the cost of gains in dry lot was higher than for any pasture lot.

Pelleting a ration of barley and oats 3:1 resulted in 1/4 pound per day greater gains than grinding the same ration. Hand feeding the same ground barley and oats ration gave somewhat cheaper gains than self-feeding but gains were significantly slower.

Hogging-off corn offered little to recommend it as compared to self-feeding a barley and oats ration in dry lot.

[Back to 1953 Research Reports Table of Contents](#)

[Back to Research Reports](#)

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