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Response of Breeding and Gestating Sows
To a Dietary Source of Lactobacillus Acidophilus

R. H. Hines and B. A. Koch

Summary

During the breeding period, adding the fermentation product (lactobacillus acidophilus) to the ration fed to gilts and sows made no difference in conception percentages. Nonsignificant differences was observed between the control group and the group receiving the additive in number of pigs born dead or alive and weight of pigs at 2 or 4 weeks of age.

Procedure

Forty gilts and sows were equally divided into two treatment groups by breed and age of females. The control group received 4 pounds per head daily of the basal ration (table 23) until approximately 3 weeks before farrowing. Then the daily allowance was increased to 5 pounds a day. The other group received the basal ration plus the fermentation product added at 1 pound per ton. About 50 days before farrowing 2 pounds of the fermentation product was added per ton of feed. Each group was fed once a day the same amount of pelleted feed. After the sows farrowed, rations were full fed.

Sows were fed in individual feeding stalls. Automatic waterers were available at all times. Sows were kept in dry lots.

Results and Discussion

Table 24 presents the breeding performance and weight data during the breeding and gestation phases of the study. Conception percentage was the same for each group. Sows and gilts were handmated with boars twice. In each group, 3 young gilts failed to show estrus during the 21-day breeding period. The low conception rate is partially explained by the shortness of our breeding program in that no females were remated.

Increase in weight during the breeding and gestating

periods were quite similar for the two groups. No female appeared to be too fat before farrowing.

Farrowing and weaning data are shown in Table 25. Differences in average number of pigs born dead or alive and in birth weights were not significant. Pigs on the control sows were slightly heavier at both 2 weeks and 4 weeks, but not significantly so.

Table 23. Basal Ration¹ Fed During Gestation and Lactation

Ingredients (lbs.)	Control
Gd. sorghum grain	1465
Soybean meal (44%)	320
Alfalfa meal (17%)	148
Gr. limestone	15
Dicalcium phosphate	25
Salt	10
Trace minerals	2
Aureo SP-250	5
Vitamin premix ²	10

¹ Fermentation Product (*Lactobacillus Acidophilus*) was added to the basal ration at 1 pound per ton during first 60 days of gestation, and at 2 pounds per ton during the last 50 days of gestation and lactation.

² Vitamin premix contains 300,000 IU of Vitamin D; 3,000,000 IU of Vitamin A; 12 gms. of Niacin; 4 gms. of Riboflavin; 8 gms. of D. Pantothenic Acid; 40 gms. of Choline Chloride; 10 mg. of Vitamin B₁₂.

In all instances, experimental animals were managed the same so the only variable was the rations fed. None of the sows had constipation problems before farrowing, dystocia at parturition, or any lactation impairment.

Table 24. Breeding Percentages and Weight Changes

Treatment	Control group	Fermentation-product group
No. of sows/gilts	20	20
No. of sows/gilts farrowing	13	13
Conception percentage	65	65
Initial wt., breeding, lbs.	400.6	395.5
Final wt., farrowing, lbs.	507.8	516.6
Avg. daily gain, lbs.	.97	1.09

Table 25. Farrowing and Weaning Performance Data

Treatment	Control group	Fermentation-product group
No. females farrowing	13	13
Avg. no. pigs born	10.54	10.84
Avg. no. pigs born dead	.54	.62
Avg. birth wt./pig, lbs.	3.20	3.18
Avg. no. pigs weaned/sow	8.46	8.84
Avg. wt. at 2 wks./pig, lbs.	8.80	8.31
Avg. wt. at 4 wks./pig, lbs.	15.42	14.78