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B A. Koch

G L. Allee

Robert H. Hines

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Flavor enhancers in growing-pig rations

Abstract

Groups of growing pigs restricted to control feed or feed containing one of 5 commercial flavoring agents or taste enhancers consumed similar amounts of feed and made similar weight gains and similar feed/gain.; Swine Day, Manhattan, KS, November 11, 1976

Keywords

Swine day, 1976; Kansas Agricultural Experiment Station contribution; no. 519-S; Report of progress (Kansas State University. Agricultural Experiment Station and Cooperative Extension Service); 283; Swine; Flavor enhancers; Weight gain; Feed/gain ratio

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Summary

Groups of growing pigs restricted to control feed or feed containing one of 5 commercial flavoring agents or taste enhancers consumed similar amounts of feed and made similar weight gains and similar feed/gain.

Introduction

Swine producers are offered many taste enhancers and palatability or flavoring agents to include in growing-pig rations. Each is to cause pigs to eat more.

If the pigs ate more, theoretically, they should grow faster and use feed more efficiently and thus, reduce feed costs.

Pigs prefer feed improved in flavor. English workers have shown that feed with apple flavor will be eaten first by young pigs. Pigs used by other researchers have selected milk flavor or feed containing monosodium glutamate. Unless the preference increases feed intake over an extended time, producers are not interested.

Procedure

Ninety-six Yorkshire pigs, averaging near 16.0 kg. (35 lb.) were allotted by sex, weight,

and litter into 12 uniform groups and assigned to pens in the controlled-environment nursery. Pigs in each pen were offered one of six, 18% C.P. rations differing only by palatability agent added.

The basal ration consisted of 32.5% ground corn, 32.5% ground sorghum, 26.0% soybean meal, 5% fat, 1.50% dicalcium phosphate, 1.20% ground limestone, 0.3% salt, and 0.2% of Lyamine-50 plus adequate trace minerals, vitamins, and antibiotics. Palatability agents added according to the manufacturers' directions were (1) Soovie, (2) Xtra-Taste, (3) synthetic apple flavor, (4) Zinpro, and (5) 100 PPM of zinc as zinc sulfate.

Results and Discussion

Before the trial started all pigs had access to the same creep ration. None showed any problems in changing to the experimental rations. All began to eat almost at once and all seemed to like the rations before them. No abnormal behavior of any kind was noted.

Performances are summarized in table 34. Variations in performance were not significantly different.

Table 34. Performances of growing pigs receiving indicated taste enhancers in feed.

Factor	Control	Sooie ¹	Xtra-Taste ¹	Synthetic apple	Zinpro ¹	100 PPM Zn.
No. pigs	16	16	16	16	16	16
Initial wt., kg. (lb.)	20.7(45.7)	20.8(45.8)	20.9(46.0)	20.6(45.4)	20.8(45.9)	21.4(47.3)
Final wt., kg. (lb.)	44.8(98.8)	44.9(98.9)	43.2(95.2)	44.3(97.8)	45.0(99.2)	45.2(99.8)
A.D.G., kg.(lb.)	0.69(1.52)	0.69(1.52)	0.64(1.41)	0.68(1.50)	0.69(1.52)	0.68(1.50)
Feed/gain ratio	2.07	2.05	2.08	2.06	2.10	2.09
A.D. feed, kg. lb.)	1.36(3.01)	1.41(3.10)	1.32(2.91)	1.40(3.08)	1.42(3.12)	1.42(3.12)

¹Sooie and Xtra-Taste furnished by Rhodia, Inc., Hess & Clark Division, Ashland, Ohio. Zinpro furnished by Zinpro Corp., Excelsior, Minn.