

Effects of Method of Preparation and Physical Form On Feeding Value of Sorghum Grain to Grow and Finish Swine (Project 110)

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Sorghum grain was prepared in a hammermill with a 1/8-inch screen and by steam rolling through a fine corrugated roller mill. Each preparation was fed in meal, pellet or crumble form. The ration also contained soybean oil meal, vitamins, minerals and antibiotics. The ration contained 16 percent protein until the pigs weighed 100; 12% thereafter.

Two lots of 5 pigs each were self-fed each ration. The pigs were housed in concrete floored pens 6 by 18 feet with half the pen under roof.

Results are shown in table 44. No statistically significant differences were obtained among preparations or physical forms for rate of gain, average daily feed intake or feed required per pound of gain. Pigs fed ground grain gained faster and more efficiently than those fed steam rolled grain. More steam rolled than other grain was wasted, especially in crumbled form. Wasted feed was weighed back and not charged against the pigs.

Pigs fed crumbled ration gained slightly faster than pigs fed either pellets or meal. Average difference between pigs fed meal or pellet rations was slight, but the pelleted ration was more efficient.

No advantage was apparent for steam rolling sorghum grain. Cost of the various forms would determine the ration use. However, pelleted or crumbled forms of sorghum grain-soybean oil meal ration show little advantage.

Table 44
Effect of Method of Preparation and Physical Form of Sorghum
Grain to Grow and Finish Swine (50-200 lbs.)

Preparation	Ground			Steam rolled		
	M	P	C	M	P	C
Physical form*						
No. of pigs	10	10	10	10	9	10
Days on test	105	101	100	105	102	102
Av. daily gain	1.42	1.37	1.54	1.30	1.35	1.42
Daily feed	4.52	4.35	4.91	4.54	4.21	4.73
Feed/lb. gain	3.39	3.19	3.27	3.50	3.44	3.31

* M=Meal, P=Pellet, C=Crumbles.