

Limited Feeding for Growing-finishing Swine (Project 110).

B. A. Koch

Limiting daily feed intake during the last half of the growing-finishing period is a possible way to improve carcass characteristics of market pigs.

A review of limited feeding trials conducted here and elsewhere leads to these conclusions regarding limited feeding:

1. It reduces growth rate.
2. Reduces excess backfat but its effect on meaty hogs is questionable.
3. Requires 10 to 30 days extra feeding.
4. Requires feeding in small groups.
5. May or may not improve feed efficiency.
6. May produce a softer carcass.

The study reported below compared limited feeding with full feeding, and dry feeding with wet feeding.

Experimental Procedure

Thirty-two growing pigs (Poland Chinas, Durocs, and crossbreds), both barrows and gilts, that averaged nearly 100 pounds, were divided into eight groups of four pigs each. Each group of four pigs was housed and fed in a 6- x 16-foot pen, half of which was under roof. All pigs were watered in a trough three times a day. Four groups ate ad libitum from two-hole self-feeders and four groups were hand fed twice a day. All rations were pelleted. Two of the hand-fed groups ate off the floor. An equal amount of feed was soaked in water and fed to the other two groups in a trough twice each day. Feed was limited to 4 pounds per pig per day until the pigs weighed approximately 150 pounds, then it was increased to 5 pounds per pig per day. Feed was increased to 6 pounds per day when pigs weighed approximately 180 pounds. It was held at that level until they went to market. The four hand-fed groups and two of the self-fed groups were fed ration 35-D (See Table 21). The other two self-fed groups received ration 35-E (See Table 24).

Performance of the various groups is summarized by feeding method in Table 24.

Observations

Self-fed pigs gained considerably faster than limit-fed pigs. Limit-fed pigs made more efficient use of feed than self-fed pigs. Carcass differences were very slight at slaughter.

There was no difference in performance of pigs limit-fed dry on the floor and those limit-fed gruel in a trough. Teeth were checked and there was no evidence of excessive wear from eating off the floor.

Table 24
Self-feeding compared with limited feeding of growing-finishing pigs.

Method	Self-fed	Limited-Dry	Limited-Wet	Self-fed
Ration no. ¹	35-D	35-D	35-D	35-E
No. of pigs	8	8	8	8
Av. on-test wt., lbs.	110	108	112	111
Av. off-test wt., lbs.	212	204	205	209
Av. daily gain, lbs.	1.73	1.59	1.46	1.71
Standard error	±.07	±.08	±.05	±.10
Av. feed eff., lbs.	3.10	3.05	3.15	3.31
U.S.D.A. carcass grades:				
U.S. Choice No. 1	7	6	7	7
U.S. Medium	1	2	1	1

1. See Table 18 for ration formulation.

Slotted Floors for Swine

B. A. Koch

Slotted floors in all phases of swine production are being widely investigated. Confining pigs on a slotted floor is not a new idea. However, we need to know more about how best to use slotted floors.

Experimental Procedure

A 12- by 20-foot portable unit with a partially slotted floor is being used here to study pig performance. The unit consists of 96 square feet of solid floor (under roof) and 144 square feet of commercial slotted floor (uncovered).

Twenty-six head of Durocs, Polands, and crossbreds averaging 62 pounds were started on test February 23, 1963. The pigs had access to two three-hole, fence-line self-feeders and a kerosene-heated, 80-gallon waterer (all on the slotted floor). They ate a complete pelleted ration (ration 35-A, Table 24).

Observations

Performance data are summarized in Table 25. The pigs were self-fed 72 days. Pigs preferred to eat from the feeder parallel with the slots. All manure fell through the slotted floor. No labor was used for cleaning. Pigs stayed clean. Feet and legs were no more unsound than one would expect on concrete floors. Wasted feed was held to a minimum by careful adjustment of feeders. Wasted feed was lost because it fell through the floor. Manure accumulated beneath the floor with a minimum of odor. After the pigs were removed, the unit was moved. Manure was then loaded with a power scoop.

Table 25
Performance of pigs on portable slotted floor, February 23, 1963, to May 6, 1963—72 days.

No. of pigs	26
Av. on-test wt., lbs.	62.4
Av. off-test wt., lbs.	196.1
Av. daily gain, lbs.	1.86
Standard error	±.03
Av. feed efficiency, lbs.	3.05
Av. age off test, days	155

Processing Sorghum Grain for Growing-finishing Pigs.

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Sorghum grain can be processed several ways for growing-finishing swine. Trials conducted in cooperation with the Department of Flour and Feed Milling Industries were designed to determine the preparation pigs preferred and how the pigs performed when limited to one preparation.

Experimental Procedure

Six different preparations of R.S. 610 hybrid grain sorghum were offered 10 pigs during a 118-day feeding period. Pigs ate the preparation of their choice. Feeders were moved every third day to minimize position effects.

The pigs had access to an electrically heated, automatic waterer. They ate protein supplement 49-A (see Table 18) free choice from a seventh

1. Department of Flour and Feed Milling Industries, K.S.U.