

Two Feeds per Day Enough for Pigs Receiving Separated Milk

FOR some years it has been recommended that pigs receiving separated milk should be fed little and often; but at the Department of Agriculture's Ruakura Animal Research Station it has been shown that two feeds per day are sufficient for pigs fed separated milk. In the following description of an experiment designed to measure the effect of number of feeds per day on growth and feed utilisation D. M. Smith, Research Officer, Ruakura, points out that adoption of the two feeds per day system would save time and labour where feeding had been more frequent and would also be beneficial in allowing greater feeding opportunities to smaller pigs in a litter.

IN the experiment at Ruakura two lots of pigs, each of four groups containing nine pigs per group, were fed a pre-set daily ration in one, two, three, or four feeds.

The ration received by any group was based on the mean liveweight per pig in the group, weights being taken twice weekly. The rations fed are shown in Table 1.

TABLE 1—DAILY RATION IN GALLONS ACCORDING TO LIVELWEIGHT

Weight range lb.	Daily ration gallons	Weight range lb.	Daily ration gallons
36-40	1.50	76-80	2.90
41-45	1.75	81-85	3.00
46-50	2.00	86-90	3.10
51-55	2.25	91-95	3.25
56-60	2.40	96-100	3.40
61-65	2.50	101-105	3.50
66-70	2.60	106-110	3.60
71-75	2.75	111-115	3.75

The first four groups were placed on treatment at approximately 40lb. liveweight and were fed for 10 weeks; the second four were started at 35lb. liveweight and the treatment continued for 11 weeks. Four groups comprising one lot were slaughtered at the end of the experiment and carcass measurements taken.

During the last 3 days of the experiment all groups were fed three times per day to equalise gut content at the final weighing.

Results of Experiment

The performance data for the eight groups are shown in Table 2.

It is evident that there is no advantage in feeding pigs more than twice per day. On the other hand there is a slight reduction in both growth-rate and efficiency when the whole of the



Because in the two feeds per day system there is invariably some milk remaining when immediate appetites are satisfied, smaller pigs within a group can obtain a reasonable share without competing with their larger litter or group mates.

ration is fed in one feed. Much of this reduction was probably due to the excessive wastage through pigs slopping milk from full troughs on to the floor.

Data relevant to the four groups comprising one complete lot which were slaughtered and the carcass measurements of which were taken are shown in Table 3.

TABLE 3—MEAN BACKFAT MEASUREMENTS, CARCASS PERCENTAGES, AND CARCASS QUALITY APPRAISALS OF GROUPS ON THE FOUR TREATMENTS

No. of feeds	1	2	3	4
Mean backfat (in 1/16in.)				
At shoulder	18.6	19.4	19.3	19.2
At loin	10.9	11.6	11.4	10.8
Carcass percentage	73.2	73.9	73.6	73.9
Carcass score (possible 100)	74	74	74	74

The lower values shown by the one feed per day group for backfat thickness and carcass percentage are probably due to the lower weight at which these animals were slaughtered. It may be concluded that number of feeds per day did not affect any of the characters listed in Table 3.

Important Implications

The fact that two feeds per day are sufficient for pigs fed separated milk at the rate shown in Table 1 has two important practical implications.

First, the time and labour spent in feeding can be reduced where more frequent feeding is practised.

Secondly, on most farms farrowings are spread to the extent that penning of pigs of similar size from several litters is impossible. The result is that each litter usually constitutes a pen, although it contains pigs of various weights. When the rations used in the above experiment were fed in two feeds the pigs never consumed the whole of either feed at once. There was invariably some milk remaining when their immediate appetite was satisfied. Thus, smaller pigs within a group can obtain a reasonable share without competing with their larger litter or group mates.

Newly Weaned Litters

Though no experimental evidence is available, experience at Ruakura suggests that for the first fortnight after weaning litters should be fed more often than twice per day. The problem with newly weaned pigs is to avoid gorging without reducing intake to the extent that growth-rate is slowed. This can be achieved by more frequent feeding. A definite inverse relationship between frequency of feeding and reaction to changes in the condition of the milk fed was observed in the experiment. Soured milk was generally used, but where for some reason fresh milk was included in the ration the pigs receiving the fewer number of feeds were the first to scour and scoured most severely.

TABLE 2—GROWTH RATE AND EFFICIENCY OF FEED CONVERSION OF PIGS FED 1, 2, 3, OR 4 TIMES PER DAY

Feeds per day	Lot A				Lot B			
	1	2	3	4	1	2	3	4
No. of pigs	9	9	9	9	9	9	9	9
Mean weight at:								
Start	43.4	42.7	44.0	44.1	34.4	34.5	34.2	34.7
Finish	108.0	114.3	115.4	112.7	111.5	114.4	112.8	114.2
Mean gain per pig	64.6	71.6	71.4	68.6	77.1	79.9	78.6	79.5
Mean daily gain	0.93	1.02	1.02	0.98	1.0	1.03	1.02	1.03
Gallons per lb. of:								
Liveweight gain	2.8	2.6	2.6	2.7	2.6	2.4	2.5	2.5
Carcass gain	3.6	3.3	3.4	3.4				