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Emergency Pork Production

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In the present war emergency, pork producers have two distinct objectives in mind: (1) to furnish the increased amount of pork needed and (2) to do this most efficiently with respect to both time and cost factors.

Some of the things which stand in the way of ready accomplishment of these objectives are inferior breeding stock, small number of pigs raised to weaning, low weaning weights, slow gains while fattening, and high production costs.

Use Good Breeding Stock

It is recognized that there are enormous differences in the inherent abilities of different strains of hogs to produce pork rapidly and efficiently. Breeders of purebreds have made much progress in improving animals for productive purposes but only a small percentage of the total swine population are purebreds and even among these some are more efficient than others.

While breeders are becoming vitally interested in production testing, as is evidenced by Registry of Merit activities of the various breeds, such methods of measuring efficiency are still not generally practiced so that it is difficult to secure tested breeding animals even when the importance of doing so is appreciated. Until tested breeding stock is available, pork producers will have to use such females as are on hand.

These should be bred to medium type, easy feeding, heavy-hammed purebred boars. Fortunately the use of such sires will, in the first cross, work enormous improvement in the producing ability of the offspring. For example, pigs by a purebred boar out of native sows reached a marketable weight in 6 weeks less time, at a cost of \$1.25 less per 100 pounds, than pigs out of similar sows but not by a purebred sire.

Since so much can be done toward the improvement of the pig crop by use of good breeding stock, and since good purebred boars are available at prices little above those of fat hogs, it would seem that only boars of this kind should be used.

When replacement of sows is made this should be done by keeping gilts produced in the largest and heaviest litters of the previous crop, selecting them at weaning time or soon thereafter to develop for breeding animals. In this manner the quality of the herd may be gradually improved.

Save More Pigs per Litter

The weaning of small numbers of pigs per litter means both lower tonnage and higher costs.

It has been said that the value of five pigs at weaning time will just about offset the cost of carrying the sow from breeding until the pigs are weaned so that profit can result only if more than this number is raised. It is easily understood that with a given carrying charge the cost per pig will be half as much and the tonnage considerably higher when 10 pigs are raised instead of 5.

Factors influencing the number of pigs raised by healthy sows may be briefly outlined as follows:

Prolificacy of Sow.—This is influenced by heredity, feeding, and management.

Age of Sow.—Sows produce larger litters than gilts.

Equipment.—Guard rails in pens, prevent chilling, etc.

Size of Pigs at Birth.—Pigs should weigh 2.5 lbs. or more.

Rations during gestation influence this.

Care at Farrowing Time.—One-third of all pigs farrowed die before weaning, most before 1 week of age.

Sanitation.—Clean sow, clean pen, clean ground.

Prevention of Anemia.—Use copper and iron salts if nursing pigs do not have access to soil.

Regardless of the number of pigs raised, maximum success will not follow unless heavy weights are secured by weaning time. The amount of milk furnished by the sow will largely influence this.

Push Pigs from the Start

Individual sows will vary in their suckling ability, but the kind and amount of feed supplied will determine the amount of milk a given sow will produce. Sows will require twice as much feed per day when nursing a litter as during the gestation period, and heavy milking sows will lose weight even if fed two to three pounds per 100 lbs. live weight per day, indicating that the feed supplied is insufficient to secure maximum production.

In addition to energy producing nutrients furnished by feeds like corn, the ration must contain plenty of protein, minerals, and should contain some succulent feed like pasture. Adequate minerals may be furnished by keeping a mixture of equal parts finely ground limestone, bone meal and common salt before the sows at all times. If this is done and good pasture is provided then corn supplemented with a mixture of 2 to 4 parts shorts, 1 part tankage, and 1 part either linseed or soybean oil meal is an example of a satisfactory ration. About 7 pounds of this supplement should be fed with each bushel of corn and the sow should be given all the feed she will consume from the time the pigs are a week to ten days old until a few days before weaning.

When the pigs are about three weeks of age they will begin to eat with the sow, and if afterwards they are creep-fed the same ration the sow receives, weaning weights will be increased.

The importance of heavy weight at weaning is illustrated by a study of the relation of weight at this time to future feedlot performance. Missouri Station records show that pigs weighing 15 to 20 lbs. at 8 weeks of age (weaning time) weighed 189 pounds when 6 months of age; pigs weighing 25 to 30 pounds at 8 weeks weighed 202.8 pounds at 6 months; while pigs having a weaning weight of 40 to 45 pounds weighed 228.2 pounds when 6 months old. The pigs which were heavier at weaning time also made faster gains after weaning. The average feedlot gains made by the above groups were 1.39 pounds, 1.42 pounds, and 1.50 pounds respectively. The average daily gain made during the fattening period by a fourth lot of pigs weighing 50-55 pounds at weaning was 1.62 pounds and these pigs reached a final weight of 254 pounds at 6 months of age.

Keep Pigs Gaining Rapidly

Slow gain during fattening is responsible for the failure of many producers to reach the objectives of the emergency pork production program. Other causes of slow gains, besides the bottlenecks already mentioned, are unthriftiness and improper feeding.

Sanitation Pays.—One of the first essentials for rapid gains is that the animal be healthy and thrifty. Not all pigs are raised under sanitary conditions and therefore may be more or less unthrifty due to worms and other parasitic diseases. Actual demonstrations have shown that even with pigs that appear reasonably thrifty 3 to 8 weeks more time is taken to get pigs to market when not raised under conditions to insure that they are free or practically free from

worm infestations. Sanitation, on the other hand, results in marketing two more pigs per litter and in saving 2 to 5 bushels of corn for each 100 pounds gain.

While worm prevention is vital in a successful system of hog raising, even wormy pigs can be greatly improved in thrift by worm treatments given at or soon after weaning. Such treatments properly administered may be depended upon to get rid of worms in digestive tract but will not undo effects of early infestations. A treatment with demonstrated efficiency consists of individual doses of American wormseed oil, 1 part, mixed with 8 parts castor oil, on an empty stomach, using $\frac{1}{2}$ ounce of the mixture to 50 lbs. live weight of pig. Regular and frequent applications of used cylinder oil will ordinarily control external parasites. The use of so-called tonics or conditioners will usually prove disappointing.

Full Feeding Is Most Economical.—Slow gains may result not from a lack of thrift but from improper feeding due either to poor quality of the ration or because inadequate amounts are fed.

Briefly, the right kind of a ration will contain some pasture, preferably the more valuable ones such as alfalfa or clover. To insure an adequate mineral supply the mixture previously mentioned should be self fed. Corn or other grains will furnish the bulk of the ration, but must be supplemented with some feed furnishing additional protein. There are many combinations of feeds acceptable for this purpose. Equal parts tankage and soybean oil meal make an efficient and economical mixture. When corn is full fed on pasture, 3 to 6 pounds of this supplement should be fed with each bushel of corn—the better the pasture and the older the hog the less supplement needed.

To get maximum gains full feeding is necessary. Fortunately fast gains are usually economical gains. Even when hogs are on pasture experiments indicate that it takes as many bushels of corn to make a hog reach a marketable weight when the amount of concentrate is limited as when full fed. Within limits, then full feeding requires no more grain but takes less pasture and produces a given tonnage of pork in less time. Spring pigs full fed also usually reach a better market.

Keep Production Costs Down

Each aid to production goals discussed so far contributes to the fifth and last to be mentioned, namely, lower production costs.

No one questions the patriotism of the pork producer, but neither is he expected to operate at a loss. Profits are only possible when production costs are low and increases in amounts of pork result only when the enterprise is profitable.

The following results secured on a Missouri farm show what can be accomplished when best methods are practiced. One hundred forty-six pigs (an average of 9 per litter) were marketed from 17 sows. These pigs weighed 251 pounds at 6 months of age, and each 100 pounds of pork was produced with 6.18 bushels of corn, 20 pounds of tankage and good clover pasture.