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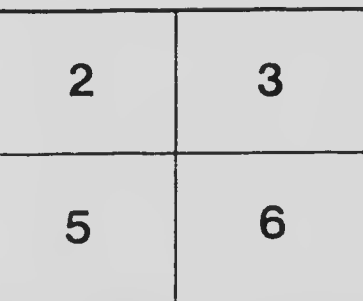
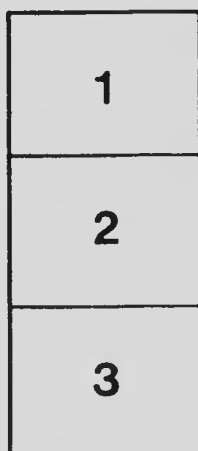
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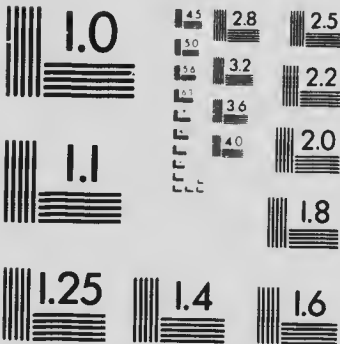
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**THE FEEDING OF SWINE**

By G. B. ROTHWELL, B.S.A., Assistant Animal Husbandman.

Anticipating the needs of the near future with regard to meat of all classes, it is apparent that the relation of supply and demand will be such as to make imperative, heavily increased production. That this increased supply should be of a rapidly available nature is peculiarly desirable under the conditions that apply to the nation at war. In this connection swine may be bred, fed and marketed with greater despatch and in greater numbers than any other farm animal now contributing to the great meat-markets. Heavy home consumption and tremendously increased export trade make a permanently profitable market certain, if the opportunity is realized and grasped.

To the farmer, who with profit to himself and country wishes to accelerate his endeavour in solving one of the nation's war-time problems, the following pages may prove of interest.

### **FEEDING AND MANAGEMENT.**

In the consideration of feeds for the production of cheap pork, choice is largely influenced by locality, season and local conditions. By these factors economy of purchase or production is governed, provided the food is palatable, easily digested and nutritious—essentials in any successful ration. The complete ration must, further, be properly balanced, compounded of a variety rather than one or two constituents, and above all things contain some succulent food, winter or summer. On the latter or natural class of food, largely depends the continued health of swine. It is essential in the feeding of breeding stock.

### **THE STOCK BOAR.**

*Summer Feeding.*—Supply a pasture of clover, alfalfa, or fine grass with water and shade. If no pasture is available, supply fresh green food liberally—clover, alfalfa grass, green peas and oats or weeds, as lamb's quarter, pig weed, dock, etc.

*Winter Feeding.*—Alfalfa or clover hay fed dry, in racks. Roots, such as raw mangels or sugar beets, pulped; cooked potatoes and turnips, 5 to 10 pounds daily; or in the absence of roots, clover or alfalfa hay, cut fine and soaked or steeped.

*Feeding the Year Round.*—If skim-milk, buttermilk or whey are available, supply at rate of 3 to 10 pounds daily as needed. The meal ration may be made up of ground oats, ground barley, bran and shorts in any combination of two or more, fed at the rate of 2 to 5 pounds per day, as needed. Use judgment in feeding the boar. If overfat, he will prove a poor or uncertain stock-getter, indifferent and sluggish at service. If he is too thin, he will transmit to his get, lack of vigour and vitality and poor condition generally.

*Exercise.*—Importance cannot be overestimated. Supply a roomy shady pasture in summer, not a filthy, fly-infested pen or corner. In winter, arrange a paddock out-of-doors, close to the barnyard. If convenient give him the run of the yard for a few hours daily. As a shelter use, the year round, a cheap, portable, single-boarded bin about 6 feet by 8 feet. Supply plenty of bedding. By feeding and caring for, as outlined, crippling and rheumatism, so common in boars, will be avoided.

### **THE BROOD SOW.**

*Summer.*—Pasture, same as advised for boars.

*Winter.*—Roughage same as for boars. Meal mixture of bran two parts, shorts, one part, except when nearing farrowing-time, when the mixture should be of equal parts. If necessary ground barley or oats might replace either. Avoid corn in more

### **DOMINION EXPERIMENTAL FARMS.**

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than one-quarter the ration. For the breeding sow it is debilitating and over-fattening. Feed meal at the rate of 2 to 4 pounds as needed.

*During Gestation.*—Flush, or bring the sow into good condition before breeding. Maintain this condition after breeding. Avoid over-fatness with the ensuing troubles—difficult farrowing, small, weak, or dead pigs. Too thin condition, particularly with a young sow, may permanently injure, in any case will likely mean small, thin pigs, a high percentage of runts, and small milk secretion. The in-pig sow must receive a cooling ration tending toward a laxative nature. The ration above advised qualifies in this regard. Remember, first and last, that constipation at this time makes very certain, serious trouble with the litter—small, unthrifty, poor-doing pigs, due to constipation in both themselves and their mother. Such litters dwindle rapidly with no perceptible cause.

*Exercise.*—Equally as important as with the boar. With the exception of that period spent in the farrowing-pen, house the brood sow outdoors the year round in a portable cabin, 8 feet by 10 feet, and as described, placing four or five sows in each cabin. Choose a dry site. Make the sow work to obtain feed. This has an unfailing influence on the vigour, size and numbers of the coming litter, and lessens liability to rheumatism and crippling.

*After Farrowing.*—Avoid exciting the sow during or after farrowing. Always be present at this time, but give only such attention as may be required; no more. The first feed should be a tepid slop of middlings. During the first ten days gradually increase ration to maximum. Particularly avoid overfeeding, causing scours and thumps in little pigs. Feed the sow for milk production such rations as ground oats, middlings (equal parts), or ground oats, bran shorts (equal parts), both combinations with milk products. In summer allow green feed or pasture only after pigs are two weeks old. In winter, feed roots, clover hay, etc., to keep the bodily functions healthy and blood cool. Empty a pailful of earth and wood ashes in a corner of the pen. When weaning cut down meal supply and remove young pigs for longer periods each day until the sow is dry. If pigs are over-fat, lazy and sluggish and the sow a heavy milker, force exercise.

### WEANING PIGS.

The strength of the pig when weaned (governed largely by factors already discussed) exerts possibly the greatest effect on the ultimate economy of production. Second only to this point in importance is the influence of wisdom in the feeding and management of the sucking and the weaned pig. More good litters are ruined—and more swine-feeders baffled and discouraged—by improper feeds and feeding and ill-advised methods at the period mentioned, than possibly during any other phase of the pig's existence.

Teach the litter to eat three weeks before weaning. Use a creep which admit the pigs but not the sow. For best results milk products are practically a necessity with middlings. A few handfuls of dry grain scattered in the bedding ensures the pigs taking exercise. Avoid overfeeding, and make exercise necessary. Gradually increase middlings until weaning. If skim-milk is available, and two litters per year are anticipated, wean at six weeks of age; otherwise, wean at eight weeks.

*Ration for Weaned Pigs.*—After weaning start grain feeding as follows: Daily ration for the two or three month pig weighing about fifty pounds; 1 pound of a mixture of barley, 3 parts; shorts, 3 parts; linseed oil meal, 1 part; with 5 pounds of skim-milk daily. Soak for twenty-four hours, and feed. If in pen, add to this some dry grain, oats or corn, scattered in litter. This is not necessary if pigs are on grass paddock. As pigs increase in age, gradually increase the grain to three pounds or more daily, as needed, increasing also the proportion of ground barley or oats in the mixture, until at six months of age the ration consists of ground corn or barley, 6 parts; shorts, 3 parts; linseed oil meal, 1 part. Shelter the pasture or paddock-fed pig either with a portable cabin or a light open-sided shed. Avoid, particularly, turning the weaned pig outdoors to a shadeless paddock. Sunburn, skin

trouble, temporary and often permanent stunting, ensues. Have natural shade if possible and supply clean, fresh water.

### OTHER GOOD GROWING RATIONS.

1. Ground barley, 4 parts; shorts, 4 parts; gluten feed, 2 parts; skim-milk, 3 pounds.
2. Ground oats or barley, 4 parts; shorts, 4 parts; ground peas, 2 parts; skim-milk, 3 pounds.
3. Ground wheat or shorts, 2 parts; barley, 2 parts; ground peas, 1 part; skim-milk, 3 pounds.

Numbers 1 and 2 would be applicable to Central and Maritime conditions, while No. 3 would be more adapted to Western needs.

### PASTURES.

Compared to pen feeding, the pasture affords 5 to 25 per cent cheaper gains. For growing breeding stock, pasture feeding provides for growth of bone and muscle and general vigorous health. For fattening and finishing pigs, firmer, better quality pork will result. With the latter class of stock, however, the range must, of necessity, be more limited. Alfalfa forms the best pasture, with clover next. With both, however, avoid too close grazing. Rape and artichokes are best pastured in conjunction with clover or grass.

### GREEN FEEDS.

For dry-lot or pen-feeding fresh-cut alfalfa or clover are best. Rape is largely employed but is much lower in value than the two first mentioned and must be used before it becomes coarse and fibrous.

### ECONOMICAL PRODUCTION AND HEALTH.

*General Rules for Feeding.*—(1) Never feed more than the pigs will clean up. (2) Make all changes in rations slowly. (3) Realize that the breeding pig is an out-of-doors animal. (4) Approximate outdoor conditions in the farrowing and feeding pen, i.e., supply fresh air, light, drainage, and above all avoid draughts and dampness. (5) Make exercise a prime factor with every class and age of breeding pig. (6) For economy and health see that green feed, pasture, roots, and well-cured roughage are part of the ration. (7) Remember that the pig is a poor patient and particularly difficult to treat. Strive to eliminate the cause of disease—prevent rather than cure it.

### MINIMIZING LABOUR BY THE USE OF THE SELF-FEEDER.

To obtain maximum results and at the same time reduce labour to the minimum is the constant aim of the manufacturer. It has been proven that the hog may feed himself practically throughout life, and give a profit at least equal to that of hand-feeding methods, labour considered. This point is worthy of every farmer's careful consideration when labour conditions in the next few years are anticipated. The self-feeder makes possible the feeding of hogs, where labour for hand feeding is not to be had, or the doubling or trebling the extent of the operation as it might otherwise be carried out, and with less labour.

### REQUIREMENTS OF A GOOD SELF-FEEDER FOR SWINE.

Such a device to be successful must be cheap, strong, capacious, portable, easy to construct, weather-tight, easy of regulation for different textured meals, and most important of all, so arranged that the contents will feed into the troughs without any stoppage caused by the blocking of the meal in the hopper. Further, the troughs must be constructed to ensure the minimum amount of waste such as might be caused by the animals nosing the meal over the sides or soiling it by standing in the troughs.

### A HOME-MADE SELF-FEEDER.

Write for full plans and specifications if interested. Briefly, a self-feeder is a large box, in length dependent on the number of pigs to be fed—2 feet 8 inches wide



and 3 feet high with a double pitch-roof, one-half being hinged for filling. In the bottom of the box is a large inverted "V" or deflector running the full length which guides the meal through openings at the bottom to flat troughs 10 to 12 inches wide on either side of the box. The width of opening may be regulated by an adjustable control-board or gate. This gate must be so attached as to have a certain amount of motion or flexibility in order that the hog by nosing against it may cause sufficient motion to break or prevent the formation of the blockades or "bridges" so common in meal bins. *Here is the important point in the self-feeder.* Unless such a device feeds continuously it is worse than useless as a feeder or labour saver. Along the trough running diagonally from the edge of the latter to the side of the feeder and spaced one foot apart, are braces or divisions, to prevent the hogs soiling or wasting meal in the troughs. Write for full plans.

### ADVANTAGES OF THE SELF-FEEDER OVER HAND-FEEDING METHODS.

1. Saves over 50 per cent of the labour. 2. Reduces waste of feed to the minimum. 3. Prevents digestive troubles due to overfeeding, the pigs having full access to the meal at all times and therefore eating in small quantities frequently, instead of suddenly overloading the stomach two or three times in the day. 4. Gives the small or timid pig as good an opportunity as the more aggressive individuals. 5. Will produce gains equal to hand-feeding methods at equal or less cost.

### CORRECT CONDITION FOR USING THE SELF-FEEDER.

Place the feeder on a platform or floor that will remain clean during wet weather and prove accessible to the pigs at all times. Provide shade of some sort, either trees or a rough shed. While this system of feeding will prove relatively economical in dry lot feeding where green food, skim-milk or water are supplied daily, *the maximum efficiency will be reached where the feeders are placed in a good clover or alfalfa pasture.* In any case, dry lot or pasture, with or without milk products, fresh water should always be supplied, preferably running, or from some self-watering device, regularly and frequently filled.

### WHEN TO USE AND WHEN TO AVOID THE SELF-FEEDER.

Young pigs from ten weeks of age onward may be safely and economically fed by this method. Until this age is reached it is generally wise to feed by hand, although experiments have proved that even sucking pigs may be benefited by the feeder. Shoats of all ages, and in fact all classes of pigs to be finished quickly for market may be most profitably "self-fed." Young breeding stock, similarly, is benefited provided the ration is one of bone and muscle-forming nature. In general, avoid self-feeding with aged sows, particularly as farrowing time approaches.

### MEALS AND MIXTURES ADAPTED TO USE IN THE SELF-FEEDER.

From a mechanical standpoint practically any mixture of whole or ground grains or other mill-feeds may be successfully fed. Corn, for example, is frequently fed along with clover or alfalfa pasture, for short finishing periods. For young pigs or shoats any of the following rations will be found suitable provided all hulls are fairly finely ground.

1. Shorts, fine ground oats, fine ground barley or corn, equal parts.
2. Shorts 4 parts, any of the above grains 4 parts, ground peas 2 parts.
3. Shorts or wheat 2 parts, barley 2 parts, peas 1 part.

With any of the above rations fed to young pigs skim-milk may be most profitably fed. Where such cannot be obtained the addition of tankage, meat or blood meal is recommended, say at the rate of one pound tankage to six pounds of any of the above mixtures. Where whole corn is used, one pound of tankage could be added to every eight of corn.



