THE PIG.

In his address on the hog in western Washington, Mr. C. L. Smith said the pig will be found an important factor in successful dairy farming.

Among the numerous advantages of dairying for the small farmer, who does all, or at least the larger share, of the work himself, some are direct and others indirect. One of the direct advantages is continuity of income, something to sell every week, thereby providing the family with the necessities and comforts of life with greater certainty than under any other system. One of the indirect advantages is found in the fact that certain by-products must be utilized and this leads logically to a healthy diversity of products, a division of labor, and when intelligently caried out, an acceptable addition to the yearly income.

Where the hand seperator is used, and the milk skimmed while yet warm from the cow, the skim milk has a sort of sentimental value to the farmer, that it loses when cooled, carted to the creamery, mixed with a hundred other lots and returned cold or sour, or both. The feeling which the farmer entertains for the different products is such that he takes, as a rule, very little interest in the last, but is careful how he feeds the first and studies to make the most of it. When he begins to do that he soon becomes a more successful feeder and breeder. One of the most available and profitable uses for skimmed milk is found in feeding pigs. Here, however, as in many other lines of farming, we find a large measure of possible profit sacrificed to carelessness or ignorance. Skimmed milk alone is not an economical food for swine. Fed in combination with grain and pasture it is one of the most profitable pork producers known. In the combination the milk solids seem to have an influence on the growth and development of the pig far beyond that of the same amount of digestible nutriment in any other form.

Numerous experiments have been conducted to determine the amount of milk which a pig can profitable consume. The results obtained justify the conclusion that about two pounds of milk which a pig can profitably most profitable proportions. The experience of many careful feeders leads to another conclusion that is contrary to the general practice. That is: when the milk and grain are fed separately the grain is better digested and it takes relatively less grain per pound of gain than when the milk and grain are mixed and fed as slop.

One of the most successful feeders I have known, feeds mixed ground grains in shallow boxes, dry. The milk being fed in V-shaped troughs, which are washed clean every day. Under the combination system, with of grain and 5 lbs. of milk made 1 lb. of gain in live weight. Pigs of the same age and weight on clover pasture, made a gain of 1 lb. for each 1½ lbs. of grain and 31 lbs. of skim milk. In another experiment with pigs averaging 30 lbs. at the beginning, one lot was fed mixed grain without milk, one lot 2 lbs. of milk to each lb. of grain, another lot 4 lbs. of milk to 1 lb. of grain. They were weighed each week, showing an equivalent of gain for skim milk when fed 2 to 1 as follows: 100 lbs. of milk produced the same as 31 lbs. of grain; but when fed 4 to 1, the 100 lbs. of milk only equalled 24 lbs. of grain. After these pigs passed the 100-lb. mark, the best results were secured with only 1½ lbs. of milk to 1 lb. of grain.

As a supplement to grain and milk, good pasture may be equivalent to one-half the ration; but on pasture alone the gain is too slow to be profitable. Under the combination systme, with well bred pigs, on good pasture, 1½ tons of mixed grain, with 3 tons of skimmilk should produce 1 ton of pork.

Alfalfa makes the best hog pasture, red clover next, a mixed annual pasture of barley, oats, sorghum is good. Rye and winter wheat are both successfully used. In Oregon I found some hogs doing exceedingly well on vetch for summer pasture. At the Wisconsin Experiment Station, one acre of rape showed a feeding value for swine equal to 2767 lbs. of corn.

The first 75 lbs. of growth on the pig shows the largest gain per unit of food, averaging for well bred and well fed pigs that are kept gaining every day, first 50 lbs, 125 lbs. food; second 50 lbs, 151 lbs. food; third 50 lbs., 190 lbs. food; fourth 50 lbs., 225 lbs. food; fifth 50 lbs., 250 lbs. food; sixth 50 lbs., 275 lbs. food. Beyond this, few find it profitable to feed. While those I have known who made the largest profit sell between the fourth and fifth 50, i. e., when the pigs pass the 200-lb. mark they are slaughtered or shipped, at the earliest opportunity. This gives a gain equivalent of 690 lbs. for 200 lbs. of pork. If one-half of this is provided in pasture, and the grain at the farm is worth one-fifth the price of pork, it shows a wide margin for profit.

For the sow, while suckling pigs, or for the young pigs, when tney first begin to eat grain, there is nothing better than wheat shorts. Peas and oats ground together are also an excellent feed for both mother and pigs.

A sow suckling 8 to 10 pigs will need fully one-third as much digestible nutriment as a cow on a good flow of milk. While the cow might easily get the necessary amount from pasture, the sow will rapidly lose flesh on pasture alone, but if furnished one-half the necessary nutrients in a grain mixture containing 15 to 20 per cent. protein, she can gather the balance of the ration from pasture.

Corn alone is not a healthy nor an economic ration for brood sows or growing pigs, neither is barley; but either barley or corn can be profitably used for one-third of the grain ration. The proportion of corn or barley may be gradually increased until it makes the entire ration at the close of the feeding period. Oats are good for part of the ration, but as they are less valuable, pound for pound, as hog feed, than corn, wheat, barley or shorts, it will generally be found a matter of economy to sell the oats and buy shorts for pig feed, rather than to feed much oats. Peas are rich in protein and for this reason are excellent to mix in the ration for growing pigs. While it is true that pigs can be grown and fattened ready for market on a single kind of grain, it is also true that that is not the healthiest or most economical way to feed. The pig will thrive better and make larger gains per unit of food consumed when liberally fed a variety of sweet, clean, palatable food.

More than this, there is a growing demand in the markets for "pig pork" with plenty of red meat. Blubber fat is not what the consumer wants, neither is it the kind that is most profitable to the producer.

It is a large sacrifice of possible profit to under feed for a single day. The pig should gain in weight every day from birth to block. The more rapid and regular this gain is made the better the meat and larger the profit. An average of 1 lb. per day from birth to block, is under, rather than over, the practical possibilities. 250 lbs. live weight in 175 to 180 days is not phenomenal nor uncommon.

This is never accomplished, however, by half feeding for six or eight months and fattening 30 to 60 days. A stunted pig wil use double the amount of food per pound of gain, than that required by a thrifty shoat that has never been either hungry or over fed.

WHAT G. H. KNAPP ACCOMPLISHED.

G. H. Knapp of Stevens county has a homestead of 160 acres seven miles east of Colville. The land is what is termed hill land, partly timbered and rolling. When he took the homestead ten years ago he did not have money enough to pay the filing. He has now thirty-five acres under cultivation, including five acres of orchard, good farm buildings, seven head of horses, fifteen of cattle, seven being milch cows and one a full-blood Jersey bull, twenty-three sheep—Oxfords—three brood sows, seventy-five hens, several stands of bees and about an acre of small fruits, including strawberries, raspberries, currants and gooseberries. From less than one acre he sold $600 worth of berries in 1900. He is milking seven cows this year and making from thirty-five to fifty dollars worth of butter per month. He has a separator and makes butter, finding a ready sale for all he can make at good prices. During the first three months of the year he sold $60 worth of eggs. He keeps two brood mares and raises a couple of colts each year.

Mr. Knapp is an enthusiastic, wide-awake man who has faith in himself and his business and is justly proud of his work. At the recent county fair—which by the way was the best ever held in Stevens county—he won the sweepstakes on fruit exhibit, eleven first and five second premiums on apples. He raises good wheat, oats and barley, also alfalfa, red and Alsike clover, timothy and red top. He raised red clover this year six feet high and alsike five and a half. His cows are grade Jerseys and he treats them so kindly that they are never afraid of him. He will go up and put his arm around their necks anywhere. He sells from twelve to fifteen hundred dollars worth of produce each year; hires very little labor and has no store bills or other debts. Rather intensive, but profitable and satisfactory farming.

CONSUMES MANY HIDES.

What becomes of the thousands of hides gathered together annually in this country, and how are they consumed? This question may come to the minds of many stock raisers, but few have any conception of the daily requirements of a single great modern institution like the Mayer Boot and Shoe Company of Milwaukee. This concern made into shoes last year the hides of 287,165 animals. Figured on the basis of 300 working days a year, the hides of nearly 1000 animals were required each day to keep the working force and the machinery in operation.

To supply the demand for the trade during the last year, there were made into shoes the hides of 41,585 steers, 21,492 cows, 38,952 calves, 135,756 goats, 46,620 sheep, 1,740 horses, 1,020 kangaroo.

If all these animals were placed in single file it would make one continuous line, 273 miles long, or about the distance from Chicago to St. louis. The number of animals required to supply the hides for each working day, if lined up at the Mayer factory every morning, would reach almost a mile.

To work so large an amount of material into the finished product necessitated the employment of over 600 people all the year round. The wages paid would support every man, woman and child in a city of 3000 inhabitants.

The Mayer factory has a capacity of 6000 pairs of shoes per day. It is located in the greatest leather market in the world, and gets the first selection of hides, which is largely responsible for the superiority of Mayer shoes and the universal satisfaction given to the vast army of people who wear, and insist upon being supplied with, shoes bearing the Mayer trade mark.

PRESIDENT RECOMMENDS PRUSSIAN STOCK FOOD.

Mr. John Dey, Hortonville, Wis., President of Outagamie Agricultural Society, says:

"Gentlemen: Nearly two months ago you sent to my address at Hortonville a sample of your Prussian Horse and Cattle and Poultry Food. I have tried it in part. I have fed it to the horses and it gives them a good appetite and makes them feel good and look slick. The milk cows I have fed it to. I think my cows have a better appetite and look better and give a better flow of milk and help the test. I have fed it to sheep and it seems to be just what they want, and I can see a change. I have not tried it on hogs or poultry, but believe it will be a great help to them. I am well pleased with it and shall use it right along and recommend it to all feeders of stock. JNO. DEY,

President Outagamie County Agricultural Society, Hortonville, Wis.

P. S. I think we farmers have lost much for not knowing and using the Prussian Stock Food.

CAHOON BROADCAST SEEDERS.

There are places where broadcast seeding refuses to go out in spite of all the modern drill machinery. In many such places the inseparable companion of the sower for forty-five years has been the Cahoon Broad Cast Seeder—a remarkable term of service for a machine so simple. But in its simplicity, as well as its perfect working qualities, is to be found, perhaps, the cause of its continued popularity. Like broadcast seeding itself, it seems destined never to release its hold. Of course, it is not identically the same machine it was originally. It has been improved. But there's enough of the old, which was always good, and enough of the new, which means its adoption of improvements, which experience has shown to be desirable, to make it about the best machine of its kind on the market at this day.

The Goodell Company, Antrim, N. H., are the manufacturers. They advertise it in our paper. The Sower's Manual mentioned in the ad, telling how, when and how much to sow, is a valuable little book for the planter to have. Note that it will come free if you will write the Goodell Company for it.