

The extent to which a study of this kind can be carried is almost unlimited, but considering our present stage of development and the small premium paid here in favor of a superior article, the time has not yet arrived when it would be profitable to carry it as far as has been done in older countries; but even here the simpler facts should be more closely observed, and the elementary principles of breeding should be given greater attention than is now being done.

As pointed out by Mr. Stevens, there is a vast difference in conditions surrounding sheep on the farm and sheep on the rough, hilly ranch, or even on the prairie ranch. Vegetation varies with the different soil and landscape conditions. We are generally inclined to think we have enough breeds, but here are two recommended for hilly Northern Alberta, and which should be equally profitable on any hilly exposed land in a trying climate, viz., Cheviots and Kerry Hills. These, says Mr. Stevens, have many points which should recommend them to the Northern flock master. They were reared in an environment very much similar to that prevailing in much of our brush country. They are very hardy and active, while the delicate flavor of their mutton is generally superior to that of the Downs. The lambs are very quick to get on their feet and are less likely to chill than are the larger breeds. They develop rapidly during the nursing period, and when killed for the early lamb trade, the shrinkage is much less than is the case with most other breeds.

Experienced sheep raisers in Scotland found that raising sheep of breeds which develop on the luxuriant pastures of Southern England was unprofitable on a commercial scale and it may be that there are certain rough districts in several of the Provinces of Canada in which better results would follow if one of the hill breeds was introduced.

It is a matter of much importance that serious thought should be given to studying the breeds most suitable for each section and not assume that because a particular breed has been found profitable in one place, it will be equally so for us, without first investigating whether the conditions existing in its native home and the system of management there are similar to those in the district to which they are to be taken.

Sow at Farrowing.

The evils and troubles of pork raising can, in the great majority of cases, be traced directly to want of proper food or care. Especially is this true at farrowing time. If, in every pen where brood sows are kept, there is a small box constantly supplied with 1 bushel of charcoal, $\frac{1}{2}$ bushel of ashes, 1 peck of salt and 4 pounds of sulphur, mixed together, there will be little danger of trouble at this critical period.

Sows eat their pigs because of an unsatisfied craving, the result of unbalanced and improper rations. When the time comes to separate the brood sows and place them in pens, with guard-rails all around, the time has also come to change the feed, and from now on middlings should form the bulk given, with some vegetables to keep the bowels in good condition. Not until close to farrowing should excess of sloppy food be given. If the sow has been handled gently all along she looks upon her caretaker as a friend. Not a day should pass without a visit to the pens and a few moments devoted to scratching her back. Then, when the little pigs come, she will not be disturbed by your presence, and many accidents will be avoided. It is these seemingly trivial steps which tell mightily in profitable pork production.—Dr. Geo. M. Twitcheil.

Separated Milk and Oats for Calves.

(Our English Correspondence)

The annual visiting day of the Royal Agricultural Society to the experimental farm at Woburn brought out many interesting points.

An experiment in calf breeding has been proceeding for some time, and if farmers generally were asked what was the best food for calves they would answer—whole milk. But in this instance the four best calves amongst the twenty in the test had been fed for nine weeks on separated milk and crushed oats. The whole-milk-fed calves came next, followed by those fed on skim milk and cod liver oil. These three lots, with four in each gained respectively 13.3, 12.83, and 9.66 pounds, per week. Those fed on calf meal gained 8.66 and those on gruel, 8.29 pounds.

In cost of production the best looking and heaviest gaining calves were the cheapest. The crushed oats and skim milk diet produced the increase at a cost of 2.62d, per pound. The cod liver oil diet cost per pound gain 3.33d, while whole milk was dearest at 5.39d, per pound gain. Another experiment is a kind of "sanatorium"

for calves from tuberculous cows. The calves are kept there from birth. The object is to find if tuberculosis in cattle is hereditary. So far the yearlings have shown no sign of disease.

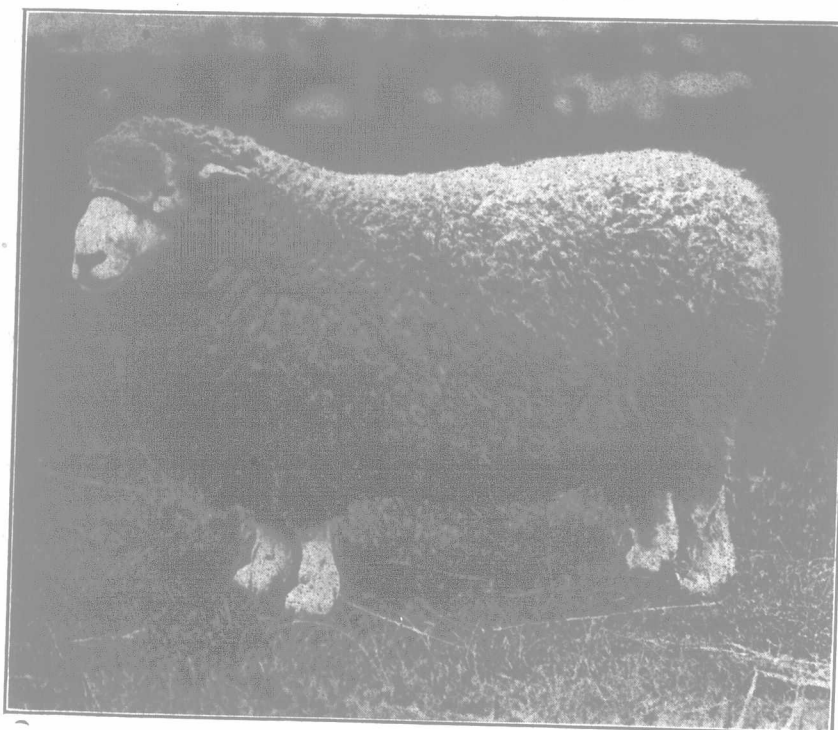
F. DEWHIRST.

Feeding Lambs.

The New Mexico Agricultural Experiment Station has been making some tests with feeding lambs, in which they found that with alfalfa hay alone, from 110 to 120 days were required to prepare lambs for the home market. The use of about one-fourth pound of grain per head per day reduced the feeding period by 10 days. The use of one-half pound of grain reduced it 20 days, while with the heavy grain ration of a pound per head per day the feeding period need be only from 70 to 80 days. The light (one-fourth pound) grain ration gave as great but not as rapid gains as did the medium or one-half pound ration. The more grain fed, the greater was the cost of gain.

Ear Corn for Hogs.

The Iowa Experiment Station has done some work in hog-feeding which has given results which some feeders would scarcely expect. From these experiments with corn as a feed it has been found that the simplest and most profitable method in most cases is to feed dry ear-corn. The grinding of corn for hogs, according to the figures obtained, is, as a rule, unnecessary and unprofitable, although soaking may be advantageous under certain circumstances. The fastest and most economical gains were made by feeding hogs dry ear-corn until they had reached a weight of 200 pounds. After that a change to soaked shelled-corn secured the most profitable gains. Corn that was soaked 12 hours gave the most satisfaction. It proved unprofitable to grind corn.



Romney Marsh Ram.

Good Breeding Essential to Profitable Feeding.

Experience has taught many a feeder to shun the animal of no particular breed. The "mongrel" has regularly been found a loser when it comes to a question of feeding for profit. By the term "mongrel" is not meant animals which have resulted from the crossing of well bred individuals of two different pure breeds, but animals which have resulted from indiscriminate crossing, or in other words from common stock. There are and have been crossed animals than which no one could have wished for better feeders. Good grades are common in every breed, but is not a good grade, one whose sires back for at least a few generations have been pure-breds, a well-bred animal from a feeder's standpoint, especially when compared with the animal of the nondescript class? A writer in "The Farmer and Stock Breeder" says:

"There cannot be too much importance attached to the keeping of the best-bred stock of all kinds on the farm, whatever the class or nature of the farm may be. There is no more false economy than either buying or breeding ill-bred animals, inasmuch as they eat just as much, and in many cases more, than well-bred ones, and instead of what they consume going to the profit of the farmer in the shape of beef and mutton, it goes to the support of a light-fleshed, rough and bony frame, which takes twice as long to come to maturity, and which is, when the time comes, worth considerably less in every respect than the well-bred one. There are so many points in favor

of well-bred stock that it is a marvel that a great many farmers should be content with buying in for breeding purposes the rough class of animal they do; and it is also to be wondered at that those who make a business of raising store cattle do not make an effort to raise something better."

If we are to make the greatest possible profit out of live stock feeding, we must have stock which will mature early. The rate at which maturity takes place bears more or less of a direct relation to the breeding of the animal. Did you ever see a two-year-old scrub steer that you considered anywhere near that maturity at which he could go on the market in a finished condition and command the top price? Such are the exception, not the rule. But such has been accomplished with the better bred class of steers, and many feeders have made a success of finishing two-year-olds. A steer which can be made as heavy in two years as another in four years, must be the more economical and more profitable feeder. There are points worthy of consideration in selecting feeding cattle. The man who breeds good stock is usually a good feeder, and the reverse is often found to be true of the careless breeder. Good feeding while young means much with live stock, and a well-bred steer which has been kept in good condition and has never lost his calf fat, is in every way likely to give better returns from feeding than the half-starved bundle of bones, the biggest portion of whose carcass is head and horns. The well-fed well-bred animal is naturally thick fleshed, has never been compelled to subsist on less food than that required to maintain the body in good health and promote growth, is constitutionally strong, and as a result, is as a rule a smaller consumer of food than his thin brother, who may have been taken from his bad conditions by the cattle feeder, and placed on a ration intended to fatten him, but which goes in an unsuccessful and costly effort in an endeavor to promote the growth of a stunted raw-boned frame. As a fat animal be-

comes fatter consumption grows less until a certain limit is reached. Anyone who has finished numbers of pigs or steers has noticed this. They must be finished, though, before it is apparent. Feeders have also remarked the insatiable appetite of very thin half-starved animals. It is quite clear that the maximum consumption of food goes with the poorer class of animal, and the minimum consumption with the well-bred, well-raised animal. Poorly bred stock grows slowly, and matures very slowly, whereas well-bred stock grows rapidly and matures at an early age. From the feeder's viewpoint, the animal which has breeding behind it has everything in its favor. The buyer always seeks the highly finished product and the highly finished product is always a well-bred

animal — well-bred, but not necessarily pure-bred, however, if pure-bred so much the better. Butchers always look for quality. It is quality which commands the highest prices, and which is demanded by the high-class trade. Good quality may be produced, but a certain amount of recognized good breeding necessary to quality is very likely to be wanting.

The old cry comes up "where are we to get the right kind of feeders?" True, there is some difficulty at the present time with a growing scarcity of cattle in obtaining these, but the opportunity is open to produce them. Instead of using a bull which is in service more to freshen the cows than for any value, which may be placed upon his get, let every cattle owner make it a point to use nothing but a pure-bred sire, and where the young stock is to be fed off, a sire of one of the recognized beef breeds. This practice continued in will surely have a good effect upon the beef cattle of the country. Herds will be graded up and good feeders will be more plentiful, resulting in greater profit to both the raiser of stocks and the feeder, as well as better satisfaction to butchers and consumers. In closing let us say in the words of the writer on the other side of the Atlantic "that no matter how bad things are, there is always a better market for good stock than bad, and many more things are possible with well-bred animals than with ill-bred ones by reason of their greater adaptability to all sorts of land and conditions."