

Small Flocks for Dairy Farms.

Editor "The Farmer's Advocate":

The editorial "Sheep on the Dairy Farm," which appeared in your issue of the 3rd instant, is both timely and suggestive. It requires courage to combat popular prejudice, but as an evidence that your opinion and recommendation is receiving practical support, may I instance the fact that one of the most experienced and successful stockmen and grain growers of Western Canada, with whom I discussed this identical subject during the past summer, expressed himself, without qualification, as of the opinion that sheep raising and dairy farming could be profitably combined. He went further and stated that such a combination would be the system of stock keeping he would advocate for adoption in a large part of the grain-growing areas of the Western provinces.

Conditions, of course, vary between the East and the West, but the need for and the advantage to be gained from the keeping of sheep on dairy farms cannot but be remarked in speaking either of Eastern or Western Canada. The fact is, the older-settled portions of the country need sheep, and need them badly. That they will yield a profitable return both directly and indirectly is not now denied. I believe that every dairy farm in Eastern Canada should maintain at least a small flock of these animals.

I would, however, emphasize the word "small." A dairy farm overstocked with sheep will lose out in returns on both counts. There ought to be no competition for a livelihood on the pasture land between the flock and the dairy herd. Fifteen breeding ewes on a 100-acre farm should be ample in meeting the requirements of that area of land. These, if given intelligent care, and if skillfully managed in their relation to the fields under crop, will do for the soil, and for their owner what sheep have done in a country whose husbandry is regarded as very much more perfect than that which we have yet been able to achieve.

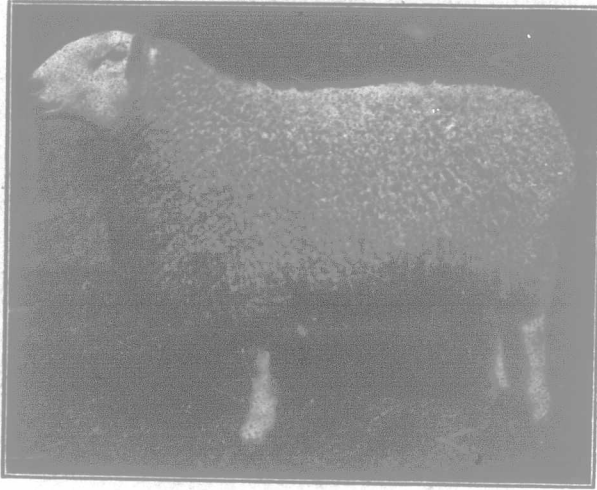
H. S. ARKELL.

Asst. Live Stock Commissioner.

Cooking Grain for Hogs.

From time to time queries come to this office regarding the advisability of cooking grain for feeding purposes. Of thirteen separate series of experiments carried on in different parts of the United States in cooking or steaming grain food for pigs, taking in cooked or steamed barley meal, corn meal and shorts, whole corn, whole corn and shorts, peas, corn and oatmeal, potatoes, and a mixture of peas, barley and rye, compared with the same foods uncooked (and usually dry), ten of these trials not only gave no gain from cooking, but there was a positive loss, i.e., the amount of food required to produce a pound of gain was larger when the food was cooked than when it was fed raw, and in some cases the difference was considerable. In the

three exceptional cases there was either no gain at all or only very slight gain from cooking or steaming, amounting to 2 per cent. in one case.



Leicester Ram.

Champion of the breed at Toronto. Exhibited by A. W. Smith, Maple Lodge, Ont.

THE FARM.**Home-made Cement Mixer.**

Editor "The Farmer's Advocate":

This is how a farmer can make a concrete mixer of his own in spare time which will mix cement just as well as any other more expensive mixer, and, at the same time, be much less trouble to build and operate.

The farmer with his mixer can build his own silo, build a concrete foundation for his barn, or any other farm building, as well as lay concrete floor in his horse stable, cow stable, hog pen, henhouse, or any other building that needs a good concrete floor. Mixing cement by hand is a very good way of mixing, but as it is so hard to get men, and wages are so high, the farmer likes to have it done with the least expense possible—he goes to work and makes a mixer himself. This can be done by using two-inch planks, making them in the shape of a box. This box is forty-eight inches long, thirty inches wide, and thirty inches deep. Two ends and brace pieces make it a solid box. A three-inch piece is bolted on each side, inside the box, to stir and mix the cement. The box is held in a horizontal position. A door is cut in one side nine inches wide and forty inches long, hinged on one side. Now you have the box and door made. It must have an axle to turn on. A hole is bored in the center of each end of the box large enough

to let an inch and a quarter pipe through for an axle.

Sand and cement will not make concrete without water. This axle being hollow, a number of holes are drilled through the pipe where it passes through the box. An elbow and a short piece of pipe are placed on one end. A funnel is placed in the short pipe, and any quantity of water can be run into the mixer where the sand and cement are. This idea makes an inlet for the water, and also an axle for the mixer to turn on, and it will work well. Now you have your mixer lying horizontally on its axle. A pulley three feet in diameter across is placed close to the end of the mixer to run loose on the axle. This pulley runs from twenty to twenty-five revolutions per minute, and by a simple arrangement of a lever, which catches the spokes of the pulley, the mixer can be started or stopped very easily, without stopping the drive pulley. The stand or frame is made out of four-by-four scantling, about forty inches high and five feet long—something like that of an Empire churn stand, but much larger.

The capacity of this mixer is a wheel-barrow load at a time. The gravel and cement are put in the mixer and mixed for about three minutes. Then the water is added and mixed for about five minutes longer. This mixer is turned by a gas line engine, and gives good satisfaction, at a much lower cost for operation than if men were hired to do the same work.

Otarion Co., Ont.

A. HOWARD ROWE.

Spraying and Variety in Potatoes

Wet seasons, such as the one we have just experienced, are hard on the potato crop. Reports of blight and rot are heard on every hand. Some sections which previous to this year have had little or no blight report that its ravages have caused considerable loss. Low or heavy land has suffered most, but the nature of land is not the only fault. The season has proven conclusively that spraying frequently and thoroughly with Bordeaux mixture is a preventive which cannot be ignored. S. E. Todd, B. S. A., Director of Government Farms for the Province of Ontario, states that little or no rot has appeared in the potatoes on these farms which have been thoroughly sprayed and on those farms where the work was looked after in every detail the potato tops were just as green and healthy at the time frost came as at any time during the season, no evidence of blight being noticed. He favors the Delaware variety.

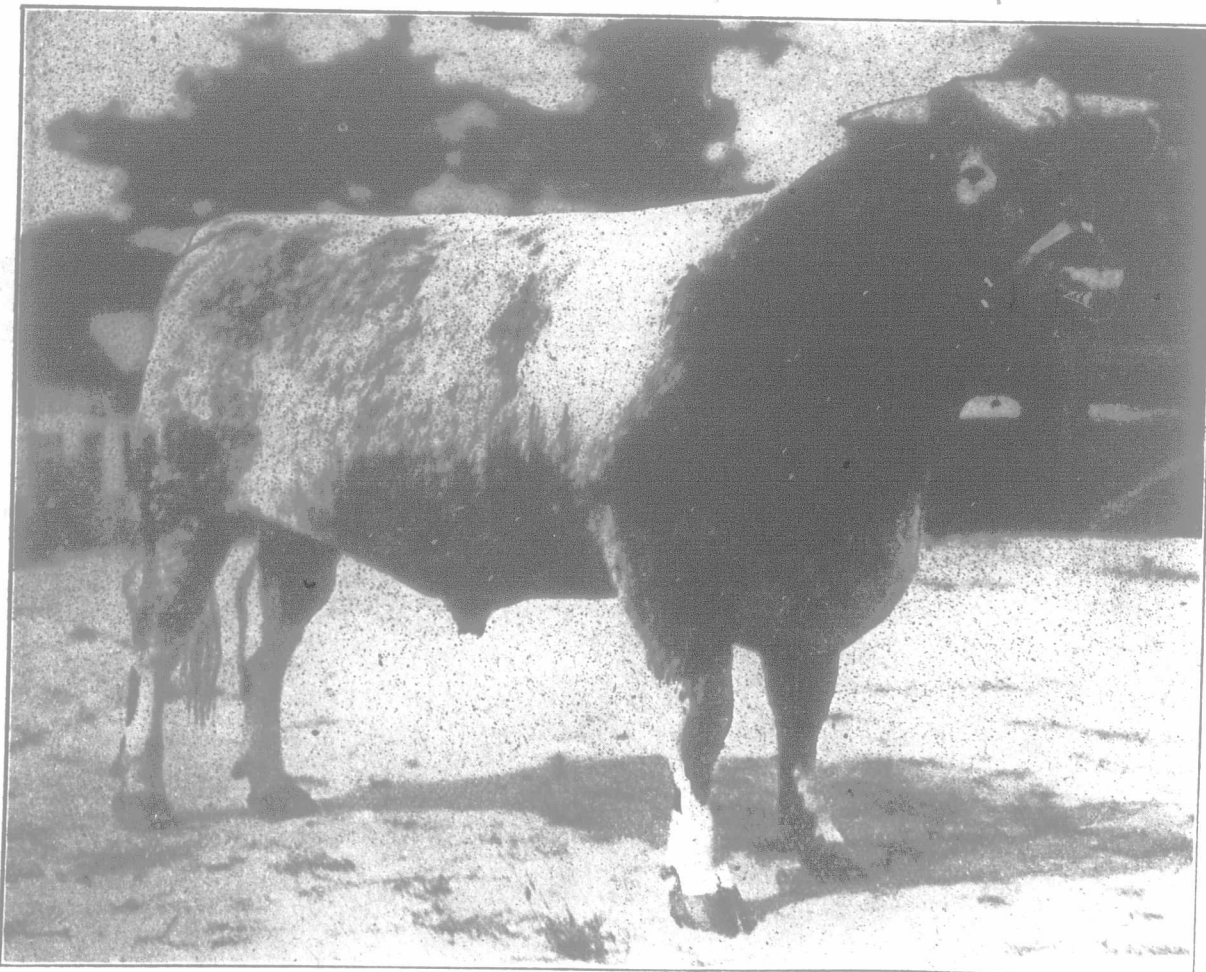
With regard to blight-resistant varieties, Prof. C. A. Zavitz, of the O. A. C., has had some very marked results this season. He finds that the four most blight-proof varieties this year are Extra Early Eureka, Irish Cobbler, Early Pink-eye and Davie's Warrior. Two of these varieties, Extra Early Eureka and Davie's Warrior, are yielding over 450 bushels per acre and no rot whatever is visible. These four varieties are all heavy yielders and where others have suffered from rot are free from it. Thorough spraying and planting of blight-resistant varieties cannot be too highly recommended.

Top-dressing Alfalfa.

It has been often advised in the case of an alfalfa stand going into winter without a strong top, to dress it with manure. It comes as a surprise, therefore, to learn that a certain writer living in the middle Western States, advises against such dressing, unless with fine and well rotted manure. "Under no circumstances," he says, "should straw or strawy manure be applied to an alfalfa field with the idea in mind to protect the plants. Such applications usually kill out the alfalfa plants. There will no harm come from the application of a light dressing of rotted manure carefully spread; but unless the soil on which alfalfa is planted is very poor, manure can usually be used to better advantage by applying it preceding some cultivated crop such as corn or potatoes."

We cannot say that we altogether agree with the foregoing advice, but the caution against overdoing by the application of course, against spread manure, may be helpful to some readers.

One of the greatest difficulties which Prof. C. A. Zavitz, of the O. A. C., has found in the growing of field-root seeds is to get them well ripened up in the fall before the frost comes. The roots selected for seed should be planted as early as possible in the spring and should receive good care throughout the summer. It must be remembered that many districts in Ontario are much more favorable to the ripening of root seeds than is the O. A. College farm situated as it is at a very high altitude, where the season is comparatively short.



Pride of Albion.

First-prize senior yearling Shorthorn bull, at Toronto, 1912. Owned by J. H. Melick, Edmonton, Alta.