

The Sow and Her Litter.

A week or ten days before she is due to farrow, the sow should be given a pen to herself, comfortably bedded, and should be fed moderately of such foods as will tend to keep her bowels relaxed, including some scraps of meat, if available. If the weather is favorable for her going out each day, she will be the better for the exercise, unless she is wild and difficult to get into the pen again, in which case she will be better kept quiet. Only those who have had experience know the value, in handling hogs, of having a couple of low hurdles, 10 or 12 feet long, hinged together at one end, for enclosing a pig, or a number of them when it is necessary to drive them into a pen. It saves time and worry, and does not fret or excite the animals.

The attendant should gain the confidence of the sow by handling, scratching and brushing her, so that she will not be timid or excitable when approached, if it should be necessary when her litter is born. The bedding should be short and dry, and not too plentiful, as the piglets are liable to get tangled or lost in long straw. If the pigs are weak or the weather very cold, it may be necessary that the attendant rub them with a flannel cloth and place them in a chaff basket covered with a horse-blanket, until all are born, when they may be placed with the mother, after rubbing her udder to get her quiet, when they may as a rule be safely left with her, but when the pigs come strong and able to help themselves the less meddling with them the better.

It is a mistake to rouse the sow by offering her food or drink for the first twelve hours after her litter is born. The quieter she keeps the better for all, and her first meal should be only a drink of water, or of milk and water, lukewarm. She should be fed sparingly for the first three or four days with thin, sloppy food, of bran and kitchen swill, and her food gradually increased in amount and richness till when the pigs are two weeks old she is being liberally fed, as the draft upon her system when in full milk is very great. When three weeks old the pigs will learn to drink warm milk if it is placed in a low, flat trough where the sow cannot get to it, and the pigs should be supplied in this way or they will get to eating with the sow, whose food may not be suitable to them, and may cause indigestion and scouring. It is better to let the pigs suck till they are eight weeks old, feeding them liberally in the meantime, so that they will not fail when weaned; but in the meantime they must have exercise. If possible—that is, if weather is suitable—encourage them to go out on the sunny side of the pen, and if this is not practicable, let them run through the pen, and, if necessary, compel them to move about, or they may become too fat and get thumps, owing to too much blood and too much fat around the heart and lungs. The aim should not be to make the youngsters fat, but to keep them growing. If they become fat when young they will not grow, but become short and thick, and not of the desirable type. A pasture of some kind should be provided for them, where they may secure exercise, and flesh-forming food should be given in moderation for the first four or five months, when richer food should be given for finishing them for the market.

Care of Ewes and Lambs.

The time is approaching when in many flocks lambs will be expected to arrive, March being the favorite month with most breeders to have them come. This unusually cold winter should call attention to the necessity of examining the sheep-house and closing all cracks and crevices in the walls and doors through which the cold winds may find their way, so that when lambing commences warmth and comfort may be ensured in cold and stormy weather. The ewes should have a little extra feed as lambing time approaches; a light feed each day of oats and bran will give them strength and tend to supplying the needed milk for the lambs when born, and if roots are at hand a moderate supply should be allowed before and a more liberal ration after lambing.

A few light hurdles, 4 to 6 feet long and 2½ feet high, should be provided with which to improvise little pens in the corners of the house, in which to confine a ewe with a weak lamb or with twins, for a day or two, until they become acquainted, and the lambs follow the mother. When a few of the ewes have lambed, it is well to divide the flock, so that the nursing ewes receive more generous feeding than the others require. When the lambs are a week or ten days old their tails should be docked, and castration performed if the males are not pure-bred and to be kept to sell for breeding purposes. At three weeks old the lambs will eat a little bran and oats and fine feed for them a separate part of the house should be provided off, with a creep in the hurdle through which they can go and the ewe cannot. The lambs should have fresh feed given daily, and the ewes should be relieved from the burden of nursing.

FARM.

Use a Manure Spreader.

To the Editor "Farmer's Advocate":

Sir,—In your issue of February 11th, I noticed an editorial on "Manure Problems," on which you invite discussion.

Notwithstanding all that has been said and written about stable manure, its care and application, there continues to be a big waste every year. I see it losing in value from evaporation, from drainage, and from reduction in bulk, either in composting or remaining in the farmyard too long. There is no doubt in my mind, from what experience I have had, and from my observations in Canada and to some extent in the States, that those who handle their stable manure fresh, and apply it in that state as a top dressing, really sustain the least waste and secure most of the beneficial results from its application. I believe the least waste will occur where the manure is spread on pasture land during the winter previous to pasturing, then plow it in the fall for a crop of corn or roots the following year. Applied in this way to a pasture, much benefit will come to the pasture itself. The available plant food is taken up as fast as liberated. If the manure is very strawy, a harrow may be allowed to run over the meadow when dry enough, and scatter it in that way. If the manure is spread with a manure spreader it will be distributed quite evenly, and not too much to the acre. Ten or twelve loads is ample where applied on a meadow, or even fall-plowed land which is top dressed, to be disked in the surface soil in the spring, with a view of seeding down with clover.

It is good practice, I find, to top dress even raw land for corn, and plow it down lightly, so the straw will not interfere with the cultivation of the corn. If we could have all our straw cut in short lengths, it would not only make a better absorbent than in the long form, but it would be easier to handle every way. Many of the objections to applying raw manure on cold clay soils would be met as well. With sufficient stock to make a load of manure each day, it is working at the best time, in the best place, and in the best manner, to take out to the field if possible, and spread it as we go. The experiment at Ottawa in analyzing green manure, then putting some of the sample in a pan and exposing it to the sun through a window for three weeks, analyzing it again and finding the only loss was weight in water, is quite reassuring that the nitrogen does not evaporate. The potash and phosphoric acid are mineral in composition, and we could not lose them if we wished. It is the nitrogen element that is liable to drain away or evaporate.

I like the practice of keeping young stock and steers in box stalls, and making a lot of the straw into manure in that way. These stalls may be cleaned out once a week, or once a month. The stock tramping on the manure keep it from heating.

The manure shed is a nice way to save manure properly. Where the cow-stable is handy to the horse-stable, the horse-stable manure may be scattered in the gutters behind the cows, and makes a good absorbent. It will serve a good purpose in the pigpen too. When manure is piled in the shed, and the manure of all our stock is mixed there, it is a good place to exercise the brood sows to keep it from heating. Stock should also be allowed to tramp it firmly.

With such a winter as has prevailed in Ontario this year, the manure-shed would be a fine thing. In March, before the snow is all gone, the manure in the shed may be removed and scattered where desired.

The objection I have to hauling out manure in small piles, even if they do not heat, is the question of labor. Rather than heat the manure in piles to destroy weed seeds, I would scatter the manure on hoe-crop land or pasture, and start the seed to grow and kill it in cultivation.

I object to the small dumps here and there in the field, as they are often quite long in thawing out in the spring, and rains leach too much of the nitrogen out in the vicinity of the dump.

I object to composting in the main, because it increases the labor and reduces the mechanical effect that coarse manure has on soils in adding to the vegetable matter which is so important.

There are conditions, it is true, when heavy loss would result from spreading manure in winter, as on ice and a freshet coming afterwards. I would try to avoid all such conditions. My observation is that the most progressive farmers—from the Atlantic to the Pacific, including those here in the State of Minnesota—are adopting the spreading of the fresh stable manure. T. G. R.

John M. Ritchie, Lanark Co., Ont.: Enclosed please find \$1.50, renewal subscription. I thought at first it was a mistake to raise the price, but now I see that it is all right.

Manure Problems.

We invariably apply manure to land as quickly as possible after manufactured. Our method is to fall plow for beans, corn or other spring crop, and hustle the manure out during the winter months as rapidly as made, spreading it evenly upon the soil. The advantages of this system are many. It affords employment for the farm help during the winter; valuable time is saved when the rush is on in the spring, and it prevents the loss of many a dollar's worth of fertilizer by fermentation, leaching, etc., which occurs when the manure is allowed to lie in the barnyard during spring rains. As soon as the condition of the soil permits, the manure is worked in shallow, with either gang plow or disk harrow, which tends to rot the manure and germinate any weed seeds, and by working this over every week or ten days, a little deeper each time, until planting time arrives, the manure becomes well incorporated, the soil thoroughly cleaned and in excellent condition for seeding. In this manner we consider we can kill foul weeds more cheaply than by piling the manure, and apply the time used in repeated handling to better purpose, viz., in working the soil. I have not tested the matter, but do not think rusted straw returned to the land propagates rust. I imagine more depends upon the season, as the straw goes back in manure each season, while some years our straw is practically free from it.

We apply manure for spring crops, particularly corn and beans. We invariably sow fall wheat on bean ground, and find by heavily manuring the land intended for that purpose we secure a heavy crop of beans, and that about the required amount of fertilizer is left in the soil to produce a splendid crop of wheat.

We know of few who use commercial fertilizers, and these few are market gardeners, so we cannot speak from either experience or observation.

In conclusion, our experience is that manure gains nothing by lying about a farmyard, and that immediate application to the soil, if possible, pays every time.

W. A. McGEACHY.

Kent Co., Ont.

Alfalfa Seed of Low Vitality.

A common cause of failure to get a good stand of alfalfa is undoubtedly low or weak vitality in the seed. The prevalence of seed of low vitality has been proven by tests in the Seed Laboratory at Ottawa. The average percentage of germination in fifteen samples was sixty-nine; in several it was below forty, and in one case only five. In several others, again, over eighty-five per cent. germinated. There is considerable difference in appearance between good and poor samples of alfalfa seed. Those with a bright greenish-yellow color have usually good vitality; darker colored samples have considerable brown seed present, and these are generally dead or give a very weak growth. A prevailing color of light green is an indication of many immature seeds, which are also of low vitality. Not infrequently alfalfa seed contains considerable impurity in the form of broken pods, stems and weed seeds, which detracts from its value. Even a sample of seed of low vitality may safely be used, provided the percentage of growth is known, as the quantity of seed per acre may then be properly regulated. Therefore, it is important that farmers growing this crop, particularly for the first time, know what proportion of the seed will grow. Tests may readily be conducted in an ordinary living room, or any farmer may have samples tested free by sending them to the Seed Laboratory, Department of Agriculture, Ottawa.

Third Annual Good Roads Convention.

A number of matters of unusual interest will be discussed at the third annual convention of the Eastern Ontario Good Roads Association, to be held at Ottawa, March 17th and 18th. Senator Earle, State Highway Commissioner, of Michigan, will be the leading speaker. He will explain good roads legislation that has been attempted by the various States in the American Union, and that is proposed by the National Congress. A special invitation will be extended to members of the House of Commons to attend and hear his address. The House will be in session at the time. In Nova Scotia the Provincial Government constructs all the bridges costing above a certain sum of money. The association has arranged to have Assistant Engineer, R. McColl, of Nova Scotia, present, who will explain the cost and methods of construction of the various kinds of bridges built by the Government, and also the arrangements that have been made with the county and township councils. Speakers will be present from Lanark, Wentworth and Simcoe counties, explaining the work that has been done in these counties in the construction of the county systems of roads. Deputy Minister, Mr. A. W. Campbell, of Toronto, will speak on road construction in Ontario, and on bridges. An effort will be made to form a Dominion Good Roads Association.