

SOILING CATTLE AND SHEEP—WATERING CATTLE.

H. B., Bruce Co., Ont.:—"1. Do you think that soiling can be worked profitably on small farms? Would 30 to 35 acres keep from 15 to 20 head of cattle the whole year round, or would cattle do as well if fed in the stables all summer? As I am not in a dairying section, I would prefer beef breeds."

"2. How would sheep do fed in the house through the summer?"

"3. Do you think it is a good plan to water breeding cattle twice a day, and at what times of the day would you water them?"

"1. The only objection to soiling cattle is the extra work involved in cutting and carrying the fodder to the animals, cleaning the stables, etc. Where satisfactory help can be obtained there is much in its favor, especially in districts subject to drought, and particularly since the horn fly has become so prevalent. In fact, some of our most advanced dairymen do not consider they could dairy profitably by any other method. These men make great use of the silo, feeding corn silage most of the year as a portion of the ration. We have heard of 90 head of dairy cows being supported on 100 acres of land by purchasing a few hundred bushels of grain and a few tons of bran. It is well to allow stock the run of a field during the nights in warm weather. Besides corn, a succession of crops should be provided, viz., fall rye, clover, oats and peas, and roots. The writer pastured a bunch of steers last season, and, despite the fact that they had abundance of pasture, water and some grain once a day, they did not gain in weight during August and September, while the horn flies were at their worst. It would have paid well to have soiled them inside away from the flies."

"2. Sheep do not thrive as well in confinement as do cattle, although practically all the most successful show flocks are summered inside during the day. This would not be profitable with a breeding flock, because the extra gains received would cost too much in expensive feed. Sheep can, however, be cheaply handled on little space by growing a succession of crops in small plots, using lines of hurdles or wire netting to confine the sheep while pasturing off the plots that are ready. Prof. Thos. Shaw, Minnesota Exp. Station, has done wonders in feeding sheep in this way on a small area of poor soil. He used such crops as winter rye, clover, vetches, rape, cabbages, corn, and several other crops. In some cases two or more crops were grown and consumed on the same land in one season. Sheep relish frequent changes of pasture and thrive well upon them when the changes are not too violent."

"3. When cattle are getting a liberal quantity of roots, or other succulent food, they need little water, and watering once a day, about noon, is sufficient; but where roots are not fed to any appreciable extent, watering morning and evening, about 8 a. m. and 5 p. m., is advantageous. We contend, however, the proper method is to have fresh water before the animals all the time, that they may follow the dictates of their own thirst in their drinking."

RE-SEEDING PASTURE PLOTS—REGISTRATION OF PIGS, ETC.

J. P. P., Essex Co., Ont.:—"I have several small plots around the house that I use for calves and young pigs. I want to plow one up this spring and re-seed it. What kind of grass seed would you advise me to sow, and what quantity per acre?"

"How can I kill the grass in a cherry orchard, as the trees are too low to plow around? I would like to re-seed it."

"I have started to raise some pure-bred pigs. How old will they be before they will not be eligible for registry, and how much does it cost for each pedigree? How much does it cost to join the Swine Breeders' Association?"

"A grass plot may be re-seeded by plowing the sod as early as the land is dry enough to work without poaching, harrowing well and sowing the grass seed alone, or with a very thin seeding of oats or vetches, say one bushel of oats or one-half bushel of vetches per acre, and a mixture of 6 lbs. red clover, 2 lbs. alsike and 6 lbs. timothy."

"We cannot suggest any other method of killing the grass in an orchard where trees are too low for plowing, than by spading."

"There is no limitation of age for registering pigs. The fee for registration and certificate is 50 cents for each pedigree to members, to non-members double fees. The membership fee is \$2 annually, which entitles the member to the printed volume of the record for the year or years for which he pays his membership fee. Mr. Henry Wade, Parliament Buildings, Toronto, is the Registrar, who will supply blank forms, with instructions for registry."

FOR SMUT IN OATS.

E. M.:—"Please say in your answers column, whether or not you consider 'formalin' a better treatment than hot water for oat smut. If you are not fully convinced that formalin is a better treatment, kindly give minute directions for the hot-water treatment?"

"It is a much simpler matter and quite as effective to treat oats for smut with formalin as with hot water. Tests conducted at Brandon (Man.) Experimental Farm proved formalin an effective treatment. Oats steeped for five minutes in formalin, 4 1/2 ounces to 10 gallons of water, gave in crop from that seed 233 good heads and 3 heads of smutty grain. The crop from seed steeped one hour in the same strength of formalin was all free from smut. The oats treated were originally very smutty. Sprinkling the oats with formalin, 9 ounces to 10 gallons of water, proved effective in destroying the smut."

PLAN FOR COW AND CALF STABLE.

A SUBSCRIBER, Lanark Co.:—"I have a building 22 feet by 60 feet, cornering a barn, and with root-house at the end of the building. It is used for a cow, calf, and horse stable, in three separate compartments. I propose removing the partition and rearranging the whole space for a cow and calf stable, and would be favored much if some reader would furnish me, through the ADVOCATE, with some suitable plan for the given space."

"[A building 22 feet wide is awkward to deal with for the desired purpose. In any case we would recommend using one or both ends for calf boxes. If two stalls 12 by 11 feet are sufficient for calves, take 12 feet from the end farthest from the root-house. If more calf room is needed, one box can be made at the other end, leaving a passage and feed room beside it. The disposition of the remaining space would depend on the number of cows desired to be housed. With high ceiling and a good system of ventilation, it would be well to arrange for two rows of cows standing tail to tail, with heads to the wall. This would allow seven feet for each row of cows, and eight feet for the passage between. This would not admit of feed passages before the cows, but if the feed is cut, the inconvenience of feeding would not be excessive. By this plan, if only two box stalls are needed, 28 cows could be housed, 2 cows in a stall, each seven feet wide. For ordinary-sized cows this would allow fair room for carrying up the feed. If only 14 cows are to be housed, it would be well to have one row, which would leave 7 feet for feed passage and 8 feet behind the cows. Another plan would be to make four box stalls, two at either end, and two rows of cows across the stable. This would house only about 12 cows, which would stand facing each other on either side of a wide feed passage. This would leave ample space behind the cows. With box stalls at one end only, three rows of cows could easily be arranged for. Our columns are open for a discussion of this subject.]"

PEAS, WHEAT, CLOVER.

J. R., Simcoe Co., Ont.:—"1. When harvesting my peas, I intend, when hauling them in, to cut them up with a cutting box, separating the grain from the straw, and storing it under cover. Will the straw keep, or will it become heated and musty, rendering it unfit for feed?"

"2. Is it advisable to sow Wild Goose wheat on black muck and sand, and is there any fertilizer I could use to make the straw hard?"

"3. I have a field of common Red clover, off which I got a crop of hay last year, and also cut it for seed. Would it yield a crop of hay this year?"

"1. Unless the crop was exceptionally dry, so dry that the peas would shell very readily, and there were no weeds or other green stuff mixed with it, we would expect the straw treated, as intended, to heat and must to a greater or less extent. We have not seen this method tried, but have frequently noticed that the fine chaffy stuff in a pea-straw stack, where the carriers dropped the straw, became musted even when kept quite dry after threshing."

"2. Black muck with sand is not favorable land for wheat, and generally produces a weak straw crop that yields poorly and is difficult to harvest. An application of salt would tend to strengthen the straw by liberating potash for the crop to feed upon. From 300 to 400 pounds per acre would be a fair application."

"3. Red clover is a biennial plant that produces seed the second year of its growth and then dies. If during the second year it is kept cut or pastured so that seed is not produced, the root does not die, but lives on unless it is winter-killed or drowned out. The effort and nature of the plant is to perpetuate itself, and having done this, it has fulfilled its mission and dies."

FERTILIZER FOR ROOT CROP.

W. E. WOODWORTH, Que.:—"What phosphate or other fertilizer, and what amount per acre, should I use for a root crop, corn and potatoes? I applied 20 two-horse loads of stable manure per acre, on good land, and plowed it under. Is it best to plant roots on sod? Is nitrate of soda or muriate of potash better than any of the other fertilizers, and what would such cost per 100 pounds?"

"[Having applied 20 loads of stable manure per acre, good results should be obtained without the use of any fertilizers. Not knowing the condition of your land, its requirements, etc., a definite answer as to what fertilizer and how much of the fertilizer for any particular crop might not secure for you the best results. In addition to farmyard manure, corn is, as a rule, greatly benefited by the application of superphosphate, say 200 pounds per acre, sown broadcast just before planting. Potatoes cannot receive a more suitable fertilizer, in addition to the farmyard manure, than hardwood ashes, unleached. Two to three tons per acre will give good results. Mangels are, as a rule, greatly benefited by the application of land salt: 300 pounds per acre. Turnips will be greatly improved by the same fertilizer, in the same amount, as for corn above. Sod land, plowed in the latter part of August and thoroughly cultivated during early autumn, then manured and ridged late in the fall, gives excellent results with roots. Nitrate of soda and muriate of potash are special and expensive manures, and should not be used except under exactly right conditions of soil and crop. They cost in the neighborhood of \$40 per ton."

A. E. SHUTTLEWORTH,
Chemist, O. A. College.]

CEDAR FOR BASEMENT WALLS.

R. W. W., Ontario Co., Ont.:—"I want to raise a barn and put stables underneath it. What do you think about using cedar in place of stone for the walls? Is it as good? I find that I can get the cedar much cheaper than stone, but would like some more information about cedar."

"[No hint is given as to how it is proposed to use the cedar. The only plan that appeals to us as being practicable is to build a stone foundation to come not less than one foot above the surface of the ground. This will keep all the woodwork high and dry. On the stone foundation set cedar posts and studding, and board up outside with two thicknesses of cedar lumber, each about an inch and a half thick, with heavy tar paper between. The inside layer of lumber may be put on horizontally and the outer one perpendicular. Probably two layers of tar paper will answer better than one, and will not cost much more. Pine lumber would answer as well, but if the cedar is sound and cheaper, will make a durable wall unless destroyed by breakage.]"

REMEDY FOR RINGWORM ON CATTLE.

MR. JOSEPH WIGGINS, Peel Co., Ont., writes:—"Enclosed find one dollar, being my subscription to the FARMER'S ADVOCATE for another year. This will make my thirty-second year, and I am not tired of your paper yet. It is a welcome visitor in my house, and I could not think of doing without it now. In the February 1st issue of the ADVOCATE, someone enquired the best remedy for ringworm in cattle. I will tell you the best remedy I ever knew. It is simple, cheap, and good, as it never fails. It is within the reach of every ordinary farmer. Take goose oil and sulphur, make a nice soft salve, and anoint the parts affected. It never fails to do its work. One application will generally do the work; if not, make another application in a few days, when the rough scales have dropped off."

FARMING ON HEAVY CLAY.

D. J. McC., Frontenac Co., Ont.:—"I would be pleased to receive some information, through the columns of your paper, for the growing of potatoes, roots and field beans on heavy clay soil."

"[The conditions governing the growing of potatoes, roots and beans on heavy clay soil do not differ from those necessary on lighter land, but they are more difficult to secure. First of all, the clay soil must be well underdrained, and then it must not be worked while wet, else it will bake so hard that a mellow condition cannot be obtained. Another accompaniment must be an abundance of humus. This can be acquired by application of fresh yard manure and the plowing down of green crops, such as buckwheat, rape, clover, etc. We shall continue in the future, as in the past, to publish occasional articles on the growing of these crops, which D. J. McC. will observe if he reads his paper carefully.]"

MARKETS.

FARM GOSSIP.

Oxford County.

The early part of the winter was very mild here, but we have had it cold and stormy lately. Cattle have done very well. I never saw cattle eat straw better, and I believe the secret is, not to give them too much; give only what they will eat clean. Have not fed any hay yet. Had six or eight loads of oats which we could not thresh when we had the machine in the fall. Part of these we have been running through an old cylinder, and part we have run through the cutting box, with the fanning mill attached, to take the oats out. The latter plan takes at least a third more power, and of course should be steady speed; but as it is wind power we have, we cannot always get a steady enough wind, but the cylinder is much easier run, and makes a good job, and the cattle and horses eat up the straw greedily. We have still a quantity of well-saved cornstalks. Of course, these get very dry after this month, but we mix the cut stalks and cut oat straw with pulped roots, and apply water when mixing, and a handful or two of salt, and then allow to lie a day or two, and the cattle eat it up clean when a handful or two of chop is shaken over the feed. We have been hauling out the manure as it was made, and spreading on the ground intended for roots. After this date we will put it in heaps. There has been a great amount of discussion on this subject. We think those who do not approve of the plan have plowed down too deep. It should be plowed very shallow, or, better still, only well cultivated, if the manure is not too coarse and long."

Our cheese and butter factories have not started yet. It has been generally decided not to make any cheese until the beginning of May, or even later. But our farmers are hard to keep together. A few won't send milk to make into butter; they think they can make it just as well at home, whereas the real fact of the case is that the separator will take enough additional cream out of the milk to nearly pay for the making, and then the creamery butter generally commands a higher price than the homemade article."

Live hogs have been keeping up well in price, although the market does not seem so lively at present. I am a little amused at the sympathy expressed in some quarters for the poor packing-house people, who, these writers claim, are losing money. Don't waste any tears on these firms. Do you think they would keep on investing money in their buildings and plant if they were losing money? No danger of that. They are perfectly able to take care of themselves; and if they should have to run their business for a time without much margin of profit, it will only be a sort of an offset to the years of the past, when they piled up such enormous profits."

Fall wheat generally looks well, but the trying time is coming. It would be a great blessing if the Hessian fly would get frozen out, even if the wheat would not be quite so good."

Perhaps one of the most difficult problems for the farmer to solve at the present time is the hired-help question. It would seem as if the hired man would soon come to be an extinct species. We fancy there will have to be a radical change in the mode of hiring help. The farmer should hire help by the year, and then use the man and himself right, have regular hours, and be content and satisfied with a fair day's work for a fair day's or rather a fair year's wages."

All the seed grain should be cleaned up and the harness well repaired and oiled, and everything put in good shape for the spring work, before spring comes. D. L."