

abortive. Thus by the Animals Order of 1886 local authorities have the power given to them of prohibiting the introduction into their districts of animals from places wherein pleuropneumonia exists, and in like manner they may prolong the statutory period of quarantine (56 days) in dealing with the same disease. Experience has shown that such permissive legislation is for all practical purposes useless; as local authorities, like other authorities, will interpret the word *may* in their own fashion, and very often, I am afraid, according to the manner in which it affects their personal interests.

Correspondents.

NOTICE TO CORRESPONDENTS.—1. Please write on one side of the paper only. 2. Give full name, Post Office and Province, not necessarily for publication, but as guarantee of good faith and to enable us to answer by mail when, for any reason, that course seems desirable. If an answer is specially requested by mail, a stamp must be enclosed. Unless of general interest, no questions will be answered through the ADVOCATE, as our space is very limited. 3. Do not expect anonymous communications to be noticed. 4. Matter for publication should be marked "Printers' MS." on the cover, the ends being open, in which case the postage will only be 1c per 4 ounces. 5. Non-subscribers should not expect their communications to be noticed. 6. No questions will be answered except those pertaining purely to agriculture or agricultural matters.

Correspondents wanting reliable information relating to diseases of stock must not only give the symptoms as fully as possible, but also how the animal has been fed and otherwise treated or managed. In case of suspicion of hereditary diseases, it is necessary also to state whether or not the ancestors of the affected animal have had the disease or any predisposition to it.

In asking questions relating to manures, it is necessary to describe the nature of the soil on which the intended manures are to be applied; also the nature of the crop.

We do not hold ourselves responsible for the views of correspondents.

Discharge from Sheep's Nose.—My sheep have a thick discharge from the nose, and some have a cough. They have been penned every night near the side of a lake, but are now removed to a dry place. Would tar be the best thing to apply? Is it best dabbed on the nose, or made into balls and pushed down their throat?—NOR'-WESTER, Ass'n.

[Daub some tar on your sheep's noses, and in the feed troughs. Give sulphur in feed; one tablespoonful every day for each sheep will not be too much. Keep them in a dry, well ventilated place.]

Treatment of Spavin.—I have a well-bred, speedy mare, seven years old, showing a weakness in this way: She does not lift her near hind leg freely in backing, but steps short and nervously as if weak or lame somewhere; she does not clear the straw or other obstruction behind with that foot as she does with the other. She shows hardly any indication of this when going ahead, and none at all after getting the least exercise. She was this way last winter, and we put her in pasture, not using her all summer. On using her again this fall she appeared to be entirely free from it, but lately we notice it coming on again. She appears to strain a little in urinating.—G. Y. M., Castleton.

[According to the symptoms you describe, your mare has a spavin coming on. Examine inside of the hock joint for an enlargement. If there is no enlargement, it is an *occult* spavin, which does not enlarge externally. In either case, apply a blister composed of biniodide of mercury, 1 drachm; cantharides, 2 drachms; lard, 2 oz. This quantity will be sufficient for four blisters. If these do not prove effective, get a veterinary to apply a firing-iron.]

When to Apply Manure.—I have a piece of sod I intend for corn and roots. Would you advise me to manure and plow under this fall, or spread on the manure and plow in the spring? The manure is well rotted; soil, sandy loam. I would like the opinion of some old farmers on this question, as in my don't agree on it here.—W. E. L., Dundas, Ont.

[The sod, as a rule, should be fairly well rotted before the crop is sown, and you should know best whether or not the sod on your own soil will be sufficiently rotted if plowed in the spring. How-

ever, if there is much decayed vegetable matter in the soil, spring plowing is better than plowing in the fall, and vice versa. Well-rotted manure should not be applied to light soils except at, or shortly before, seeding time, for the best of the manurial constituents will leach through the soil before it can be used by the crop. If you apply the manure now whether plowed under or not, you will have considerable loss if wet weather follows, either this fall or in spring. Our advice is: (1) If you can keep your manure heap till spring without loss by leakage, do not apply the manure till just before planting the corn and sowing the root seeds. (2) If the soil has much black vegetable mould, plow it in spring; if not, plow this fall. We should like to hear from practical farmers; we shall gladly publish their views for your benefit.]

The White Grub.—The wheat crop is suffering more or less in the different parts of Western Ontario, and probably in the Eastern parts, for aught I know, by the White Grub (*Lachnosterna fusca*). Perhaps no destructive insect is better known by the farming majority than this, in its larval and perfect state; yet there may be some who do not understand its life history, and for the benefit of those I have penned these few lines, which I hope will interest and probably instruct some readers of the ADVOCATE. The grub and the May-bug or June-bug are the same insect in different forms. In the months of May and June these beetles may be seen flying around at night, and often enter the house, attracted by the light, to the great annoyance of the occupants. The beetle is about an inch long, of a dark chestnut color; its legs are quite long and slender, with sharp claws, by which it can cling readily to foliage. Each wing cover has two or three longitudinal lines. If the ends of the feelers are examined, they will present three leaf-like plates. The female enters the ground to the depth of a few inches, after pairing, where she deposits her eggs and soon dies. In about a month the eggs hatch and are known then as the Grub, although very little is known of their first year's history; but they no doubt subsist upon the small roots which they come in contact with in the ground. They are large enough the second year to make their presence felt, working near the surface upon all kinds of roots, which they cut off a short distance below the surface of the ground, and consequently the plant wilts and dies. This may often be seen in the corn fields, as well as other farm crops. The grub is full grown between the third and fourth years, and is then about the size of one's little finger. It is soft, dirty white, with a dark colored head, and is generally found with its body curved in a semi-circle, and crawls but slowly. In the third or fourth years they form a somewhat egg-shaped cell, by sticking particles of earth together by means of an adhesive fluid, within which they assume the pupa state. Such is a brief history of the White Grub, which is doing so much damage in Ontario.—C. R. S., Fingal, Ont.

Cement for Stables.—What is the best material for cattle stable flooring, and how is same constructed, cost being a consideration?—P. A. R., St. Thomas, Ont.

[Akron cement is what is generally used for this purpose, which costs here \$2.50 per barrel. The cement is made by mixing one part cement with two parts sand. If you want a substantial job, get a good stone mason to do the work. If a mason understands the work, he can make a good cement from ordinary mortar used for stone building, mixing one barrel of hard coal ashes for every two or three barrels of lime used for the mortar.]

Vinegar from Sugar Beets.—I have been told that good vinegar can be made from sugar beets. Can you tell me how it is made, and if syrup can also be made from them?—OLD SUBSCRIBER, Bracebridge.

[There is no process by which the farmer can make syrup or vinegar from sugar beet.]

Bone Meal for Poultry.—Can you tell me in the ADVOCATE where I can buy bone meal suitable for poultry. It is too hard to break the bones without a mill. It would pay me better, I think, to buy the ground bones than to get a mill, as I have not many fowls.—H. F. B., Campbellford.

[Write to P. R. Lamb & Co., Toronto, mentioning our name.]

The Size of a Peck Measure.—What is the depth and width of a square box to hold a peck, and also half a bushel?—CONSTANT READER.

[A bushel contains 2150.4 cubic inches. If you divide this number by 2 you will get the cubic contents of half a bushel, and by dividing by 4 you will get the contents of a peck. If you mean that the width, length and depth are to be the same, all you have to do is to extract the cube root of the number of cubic inches in a peck, which will give you the three dimensions you require for a peck measure; for a half bushel, extract the cube root of the number of cubic inches in a half bushel. But as

this will give you awkward figures to measure accurately, you will find that a box 8x8x8.4 will give you the size of a peck measure, and a box 10x10x10.75 inches will give you the size of a half bushel.]

Notes from Manitoba.—We are having a good fall here. The threshing is all done. There has been as high as 40 bushels of wheat per acre, although the average has not been more than 22. Oats and barley have been a light crop. The farmers about here have all their fall plowing done, which will give them a chance to get their crops in earlier in the spring. We have no frozen grain this season. Hay was a fair crop, and the dry weather allowed us to sow it in good condition. The prairie fires were terrible this fall, and a great many farmers lost their hay, and some have lost all their stables and granaries with all their grain. The grain market is brisk here at present. One would wonder where all the grain comes from. Wheat is sold at 50c for No. 1; No. 2, 46c per bushel; barley, no sales; oats, 3c to 3c per bushel; pork, 34c per lb.; beef, 3c, owing to so much hay being burnt, but good milk cows still keep at about \$35 a head. There are some good high grade cattle in this country; all we want is better bulls; the cattle have a good run in this country, and are still in good condition on nothing but the prairie grass. We have had no snow yet, so it gives them a good chance to pick their livings. The crop was good on the Portage plains, the crop averaging 38 bushels to the acre; oats and barley were a fair crop, they had more rain than we. Buildings are going up at Treherne, and we are in hopes of having a good town here. The railway has been extended from Holland to Glenboro, and towns are springing up all along the line, which is giving the farmers a good chance to get in their grain.—C. G. C., Treherne, Man.

Agricultural Books.—Please recommend course of agriculture that will renovate worn and burnt land. Part of the farm is very stiff swamp clay, having been timbered with ash and elm, with ridges of hard pan clay. The land is quite new, but has been badly burned. 1. Would subsoiling be beneficial? 2. What are the best fertilizers to use? 3. Recommend a good work on grasses for pastures and meadows. 4. A good work on drainage. 5. Please give a short description of Johnston's Agricultural Chemistry and Harris' Talks on Manures. 6. Do you know of a subsoil plow that will lift the subsoil on top of the ground?—J. B., Kincardine.

[Any good work on agriculture will give you the desired information. Read the list of agricultural works in our advertising columns. 1. Both subsoiling and drainage would be highly beneficial. 2. Muck is the best fertilizer for burnt land, as it contains the organic matter which the fire burnt out. Any application containing vegetable matter is good, such as farmyard manure. If you can't get enough of these, mix them with any commercial fertilizer containing nitrogen, such as nitrate of soda, dried blood, or sulphate of ammonia. 3. There is no good special work on grasses recently published; most all agricultural books have more or less information on grasses. We can recommend nothing reliable and practical for your use. 4. French and Elliot are good authorities on drainage. 5. Johnston's Agricultural Chemistry contains about 700 pages, and costs \$1.75. It is too scientific for the average farmer, but treats minutely on all departments of farming. Harris' "Talks on Manures" is an excellent work for farmers, being both scientific and practical, and can be comprehended by farmers of ordinary education and intelligence. 6. Subsoil plows are not intended to lift the subsoil on the surface.]

Cows Passing Blood—Ring Worms—Warts—Lice.—1. Would you kindly inform me in the December number of the ADVOCATE what is the matter with my cows. They come a running in spells, and pass blood. Very few cows are in calf in our neighborhood this season. 2. Give me a remedy for ring worm. 3. Also for warts. Are they infectious? Give me a remedy for lice on pigs. My son took a sow to the boar and brought a breed of lice and infected my whole pen of hogs.—L. L. S. T., Hullet, Ont.

[1. Your cows must have eaten something which excites the womb or vagina, possibly ergot in the grass, or some peculiar weed. The same cause will prevent the cows coming in calf. 2. The simplest remedy for ring worms is gunpowder and lard mixed in the proportion of 2 drachms of the former to 1 ounce of the latter. Rub in until the scar is dried up. It is catching by contact. 3. Remove the warts with a sharp knife, and then apply chloride of antimony with a feather once or twice a week. 4. Lice can easily be destroyed by a strong solution of tobacco. Don't dress the whole hog at once, but cover one third of the animal each day for three consecutive days, and then continue applying once or twice a week. By covering the whole hog at once too much tobacco may become absorbed into the system and act as a poison.]