

SOUR OR ACID SOIL?

Please answer the following through your columns: (1) What is "sour" land; (2) what is "acid" land; and (3) the difference between the two? I understand from what I read, that strawberries do well and thrive in land too acid for almost any other crop. (4) How will raspberries and blackberries act in such land; (5) what is the best and cheapest corrective for such land; (6) how is lime treated and applied to land, and at what rate; (7) what action has it on the soil, and will an over-application injure plant life?

J. W. F.
Yale and Cariboo, B.C.

Ans.—Acid and sour, as applied to land, are synonymous terms. To determine whether the soil is acid or not, take a strip of litmus paper and bring it in contact with the damp earth; if the blue color of the paper changes to red, the soil is too acid for plant growth. Soil should be just neutral; that is, neither acid nor yet alkali. The best remedy for acid soil is, after thorough drainage, lime. The amount of lime required to check the acidity will, naturally, depend upon the degree of sourness in the soil. Ordinarily, a coat spread on as thinly as possible would give immediate benefit. Take the burnt lime and pile it in small heaps, as manure is sometimes applied, and cover with the damp earth; in a few days it will become slacked, when it can be spread thinly over the surface and cultivated in. There is not much danger of an overdose. It might be tried in a small plot. Experiments conducted at Rhode Island go to show that blackberries, Snyder variety, thrive very well on acid soil; cranberries, also, are right at home on sour land. We have no knowledge of strawberries succeeding well on sour land. Much would depend upon the variety and the extent to which the plants were accustomed to the nature of the soil.

STALLIONER'S FEES.

A owns a Shire stallion, B owns a carriage stallion, C owns a mare of the agricultural class, about ten or twelve years old, that has raised four colts. On June 21st, the mare was served by A's horse. On July 8th, the mare was again served by A's horse. The mare was then examined and found closed. A said to C "Your mare is either in foal or it is impossible to impregnate her. On July 11th, C's mare was covered by B's horse. The mare foaled on May 31st, and the colt resembles A's horse. Is A entitled to a stud fee; if so, can B also collect a stud fee?

F. D. G.

Ans.—The mare was evidently pregnant to the first service, and it appears to us that A is clearly entitled to his fee. Many instances have come within our knowledge of pregnant mares accepting service for months after being in foal. Unless there was some special agreement, it would appear that B is also entitled to his advertised fee for a single service of his horse.

REGISTERING STANDARD-BREDS—CONDITION POWDER

1. Can you give the standard for the registration of Standard-bred trotting and pacing horses?
2. Is there any objection to Thoroughbred blood in the registration of a horse as Standard-bred?
3. Can you give a good recipe for a condition powder for horses?

J. E.

Wellington Co., Ont.

Ans.—The requirements for registering Standard-breds, trotting and pacing, were given in our June 15th issue, from which we republish the following:

The Trotting Standard.—When an animal meets these requirements, and is duly registered, it shall be accepted as a Standard-bred trotter:

- 1.—The progeny of a registered Standard trotting horse and a registered Standard trotting mare.
- 2.—A stallion sired by a registered Standard trotting horse, provided his dam and grandam were sired by registered Standard trotting horses, and he himself has a trotting record of 2.30, and is the sire of three trotters with records of 2.30, from different mares.
- 3.—A mare whose sire is a registered Standard trotting horse, and whose dam and grandam were sired by registered Standard trotting horses, provided she herself has a trotting record of 2.30, or is the dam of one trotter with a record of 2.30.

4.—A mare sired by a registered Standard trotting horse, provided she is the dam of two trotters with records of 2.30.

5.—A mare sired by a registered Standard trotting horse, provided her first, second and third dams are each sired by a registered Standard trotting horse.

The Pacing Standard.—When an animal meets these requirements, and is duly registered, it shall be accepted as a Standard-bred pacer:

- 1.—The progeny of a registered Standard pacing horse and a registered Standard pacing mare.
- 2.—A stallion sired by a registered Standard pacing horse, provided his dam and grandam were sired by registered Standard pacing horses, and he himself has a pacing record of 2.25, and is the sire of three pacers with records of 2.25, from different mares.
- 3.—A mare whose sire is a registered Standard pacing horse, and whose dam and grandam were sired by registered Standard pacing horses, provided she herself has a pacing record of 2.25, or is the dam of one pacer with a record of 2.25.

4.—A mare sired by a registered Standard pacing

horse, provided she is the dam of two pacers with records of 2.25.

5.—A mare sired by a registered Standard pacing horse, provided her first, second and third dams are each sired by a registered Standard pacing horse.

6.—The progeny of a registered Standard trotting horse out of a registered Standard pacing mare, or a registered Standard pacing horse out of a registered Standard trotting mare.

Registration fee, whether Standard or non-Standard \$2; to stockholders, \$1. Official certificate of registration, 50 cents. Transfers of ownership, 25 cents. The fees charged for registration of all animals over two years of age are double the regular fees (the age of animals to be computed from the first day of January in the year in which they were foaled).

For any additional information, apply to Frank E. Best, Registrar, Ellsworth Building, Chicago, Ill.

2. Thoroughbred blood of recent introduction would interfere with registration, but might improve the quality of the stock in which it was used. A study of the requirements above will decide individual cases.

3. While it is not a good plan to resort to chemically-prepared tonics in order to get horses into good mettle, still there are occasions when such may be quite beneficial. Such a tonic may consist of two ounces each of ferric sulphate, pulverized gentian, pulverized nux vomica, and nitrate of soda. Mix these, and give a teaspoonful night and morning in ground oats or bran. Also, give, two or three times per week, a feed of boiled oats. Feed in the regular grain food a little oil cake, as it aids digestion. Give plenty of exercise, and groom well.

ONION-GROWING.

I have been trying onions for three years, and they grow very large but will not ripen. I have them on well manured black sand. Can you tell me why they will not ripen? They seem to grow too much stalk, and the roots grow about four inches in the ground. I planted them about 12 inches apart in rows, and hoed pretty well up to them. Does it make any difference to hill them up? What is the best time to sow black seed onions, and what soil is adapted to them? The first year my crop ripened fairly well, and I kept my seed from them. Does it make any difference on this point? How deep should the seed be planted?

Essex Co., Ont.

Ans.—Sand is not good land on which to grow onions. They require a rich, mellow surface soil, but a firm, well-drained subsoil. It is probable this land would grow too much vegetable matter of whatever crop were sown on it. If it were well drained, potatoes or other roots might do well on it. One reason why the crop did well the first year might be on account of the rainfall. The last two seasons have been remarkable for prolonging growth. On suitable soil black seed onions are sown as early in the spring as the land can be worked, and the Spanish varieties also, unless they are started in hot-beds. When this is done, the seed is sown early in March and the plants set out as soon as the land can be made ready. In cultivating, onions should never be hilled up, but the earth should rather be drawn away from them. When well grown, or about the last week in August, the plants should be pushed over with the back of the rake to encourage ripening. It is probable deep planting of the seed encouraged the growth of thick necks. From one-half to three-quarters of an inch is deep enough to sow the seed. The roots would not go four inches in the ground if the subsoil were firm enough. Home-grown seed should be as good as any.

SULPHUR AS AN INSECTICIDE.

Will sulphur, fed to cattle, prevent lice from coming on them, or will it kill them after they are on? If so, how much should be given to them, and how often? Is there any risk of giving them too much?

Russel Co., Ont.

Ans.—The only value sulphur is to cattle is that a little of it improves their condition, and so makes the effects of lice less noticeable. The great reason so many stables are infested with lice is because they are built to harbor them, and are not thoroughly whitewashed every year. It should be a hard and fast rule that the stables be whitewashed each summer, and that the cattle receive an application of crude fish oil and turpentine—eight parts oil to one of turpentine—or some other good insecticide, when they are first put up in the fall, as lice soon increase when the cattle are brought into comfortable quarters. If sulphur is given, let it be mixed with salt, kept where the cattle can have access to it at will; then they will not take too much. If given freely with their food, the effect would be to unduly open the pores of the skin and render the animals liable to catch cold.

CLOVER SEED PER ACRE.

How many pounds of red clover seed would it be necessary to sow to an acre? I want to take one crop off and then plow it under.

Lambton Co., Ont.

OLD SUBSCRIBER.

Ans.—Use only clean, new seed, and sow from twelve to fifteen pounds per acre, depending upon the fineness of the seed-bed.

CROPS AND CULTIVATION.

A farmer has about 35 acres good arable land close by 200 acres of rocky pasture. The arable land is rough, and at present unfit for a binder. The soil is clay and clay loam, and produces excellent hay, grain, corn and root crops. He has first-class winter accommodation for cattle and sheep. Heretofore, he has threshed his grain crop, the greater part being sold or kept for seed. In winter all roughage is fed cut, with roots pulped. Towards spring hay is added to the feed. Straw and corn cut is the staple mixture during winter, but only a few animals eat the mixture up clean without roots. He thinks in future of cutting all his grain crop for hay, so that all his roughage may be more palatable. As he is doubtful about the wisdom of the move, he would like to know the experience of others on such a method of farming, and have the "Advocate's" opinion on the following points: Could sheep breeding (with early lambs) and winter dairying be properly and profitably carried on with such feed? What cereals or mixture of cereals would make hay of good feeding quality for the stock indicated, and for the farm team? Would it be an economical method as regards labor?

G. McP.

Ontario Co., Ont.

Ans.—On such a farm silage would be one of the most valuable fodders, as it would make the cut straw more palatable when mixed with it and allowed to stand a few hours before feeding, and would provide a means of storing the maximum amount of food which the farm would be capable of producing. Mixtures of grain crops, oats and barley are sometimes cut in the milk stage for fodder and cured as hay, making a very palatable and nutritious food, and might be profitably grown to a limited extent. We would not, however, advise treating all the crop in this manner, as some grain is almost indispensable. Winter dairying and sheep-raising should succeed well on such a farm, provided other conveniences and facilities are available. A mixture of cereals that yields a larger amount of grain than can be obtained from the land devoted equally to each is that of barley and oats; or if the crop is to be cut for fodder, a small portion of peas would make it still more valuable, especially for the sheep. It might be more economical to cut the cereals green, as they could then be fed without running through the straw-cutter.

CARE OF A HEDGE.

Will you kindly advise me, through the columns of your valuable paper, what to do with my honey locust hedge? I purchased it about seven or eight years ago from the Stratford Hedge Fence Co., and they were to come back every year and replace all dead plants, and after it was large enough, to plash it; that is, cut the roots on one side and turn it over to an angle of 45 degrees. They came back for three years, and then quit, and have never been heard of since. Can I do the plashing myself? I think it was patented. Would it be as well to trim the hedge for plashing in March, as we have not much time in seeding?

Gray Co., Ont.

W. H. H.

Ans.—It is just an open question whether it would not pay to remove the hedge altogether. Where labor is plentiful a few rods of hedge might be kept for ornamental purposes, but to set any length of it involves an immense amount of time and care in trimming and training. The majority of people would root this locust hedge out of the ground and be glad to get rid of it. If it is decided to retain it, any person can do the plashing. As it now stands, it will probably require a lot of pruning before anything else is done to it. First cut the whole growth back to about three or four feet in height, then, if it is thought best, which is not probable, it can be plashed. The job is not completed, however, with this operation, for each year the plants will require trimming. There should be no objection to pruning in March or any other month, when the wood is dormant. The honey locust is quite a hardy shrub, and will stand a lot of pruning, both in the top and root.

LICE ON CATTLE.

I have twenty-six head of cattle which are covered with large blue or gray lice. I have used sheep dip and several other things, but can't get rid of them. One of my neighbors told me turpentine and raw linseed oil would kill them. What is the surest and cheapest way of treating the cattle, and the proper stuff to use?

Bruce Co., Ont.

M. V. M.

Ans.—These must be a thick-skinned breed of vermin. Sheep dip usually proves effective. Grease or oil of any sort generally does for them by stopping their breathing. A mixture of coal oil and raw linseed oil should be a sure cure. Coal oil alone will blister and harden the skin and take off the hair. The quickest and most effective cure we know of is insect powder (pyrethrum) commonly used for killing house flies. Sifted on the cattle from a flour dredger, we have known it to make a clean sweep of big blue lice in a single night, not a solitary sninner being left to tell the story.