

MUSTARD AND OTHER WEEDS.

WHERE THEY COME FROM AND HOW
TO GET RID OF THEM.

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How often we hear it said that the garden is so rich that it is almost impossible to keep the weeds down. This richness is always obtained by the copious use of stable dung and such manures rich in humus. The same remark applies in farming as in gardening. Why do these weeds grow on these very rich soils? Are these soils not over rich in something? May they not also be wanting in something, and consequently may not a want of balance cause what we may term, from our standpoint, a weakness? I know a man who had one of these very rich spots. On my suggestion he treated it liberally with a pure phosphate of lime in a non acid form, and as a result the only weed he had to contend with was clover, but the produce was also much improved. The elements of soil fertility are nitrogen, potash and phosphates. The stable manure supplies considerable quantities of the first two and very little of the third, as the animals use it up in their bone. But there is another point which presents itself to our notice. The large amount of stable manure needed to give enough phosphate for the best production puts into the soil such an overwhelming supply of humus matter to decompose in the soil that an inordinate amount of carbonic acid is secreted with the result that the land is really sour. Also if the land contains much sulphur it is apt to be freed in the soil from which we are carrying away the lime in the crops. As a result of this acidity it is held by some that various weeds spring into life or develop, among them the mustard. Liberal applications of pure non-acid phosphate of lime have frequently effected a cure, the mustard disappearing in a couple of years and sometimes even sooner. Clover seems to take its place in many instances.

If the clover comes in this unaccountable way, why not the mustard? It is particularly noted that if left to flower the weeds upon such acidified soils produce yellow blossoms, and it is well known that yellow color follows green very closely, being its complementary color. Is the yellow also a sign of weakness is a query which suggests itself to us when we remember that the yellow weeds come either early in the spring before nature is thoroughly active, or in the autumn when she has partially exhausted her strength in production. Have you noticed that the corn turns yellow in a soil soured by lying in a wet state without proper drainage in a wet season? Healthy dung from a growing animal of any species which forms a considerable bone structure, is yellow, and it is the refuse of the food from which the animal has extracted the strength. In the autumn the leaves turn yellow when the ripened wood and fruits have extracted from them all the strength and bone earth assimilated in its structure. Most fruits are green while growing, and the strength of the plant is acting throughout the structure, but as the strength concentrates in the interior flesh and seeds, in fact, with ripening within comes yellowness and weakening without. The seeds of the yellow pumpkin and squash con-

tain the most of its strength. May not we have found an antidote for the yellow weed, and is it not possible, by proper attention to manuring, so as to properly balance the elements of plant growth in our soils, to control weed growth and confine it to a class more tractable than mustard and some of the more noxious ones.

MAPLE SYRUP.

This is the time of the year when "new maple sugar" or "new maple syrup" is displayed in the store windows to tempt the lovers of this good Canadian product. The sceptical customer is serenely told that "it comes from the Province of Quebec, you know," despite the fact that the trees have not been tapped in southern Ontario. If the customer has his suspicions set at rest and purchases a little sugar he is almost sure to repent it later, for he is invariably treated to a sugar composed of nine tenths common brown sugar and perhaps one-tenth maple, or it may be that only a maple flavoring has been added.

There is no reason, however, why any farmer having a hundred or so good maple trees can not have a nice lot of genuine sugar and syrup at a very small cost.

A few weeks ago we illustrated the old-fashioned way of boiling down maple sap, and it is a good plan yet where the quantity is small. A better plan, however, is to get a big flat pan made of galvanized iron. A convenient size is two and a half feet wide, five or six feet long, and six or eight inches deep. Build an arch either of brick or stone with a good high chimney. The sap in the front pan should never be put off the boil by having cold sap put into it. By having a pot or small pan built into the arch at the back of the boiling pan, the sap can be heated to the boiling point by heat that would otherwise pass up the chimney. The sap from the heating pan or kettle should be strained into the boiling pan, and should be boiled down as rapidly as possible after it has been gathered. Quick work makes the best colored syrup. Don't let syrup stand in the pans over night. Syrup off every night and strain the syrup through a loose woven piece of flannel.

It is a good plan to have a galvanized iron pan with four good handles made to fit the kitchen stove. This pan should be about ten inches deep and the syrup as it comes from the woods should be put into this pan and boiled down until an imperial gallon weighs thirteen pounds. While boiling the syrup should be cleansed by adding to it about a pint of sweet milk which will cause any dirt that may be in it to come to the surface when it should be skimmed off at once.

A good many makers prefer to let the syrup, as it comes from the woods, stand until cold before cleansing it. This allows the malate of lime to settle. The syrup is then drained off the top and cleansed.

Cleanliness all the way through is the secret of having good syrup. The buckets should be thoroughly cleaned out before the season begins. Tin ones with covers will give the brightest colored syrup, but where there are only a hundred trees or so, good

wooden buckets will answer well. Iron or tin spiles are to be preferred to the old wooden ones, and the bucket should be hung on the spile.

With this simple outfit any farmer can make a nice lot of syrup that will be a welcome addition to the table any time during the year. Such a simple outfit is all right for a small number of trees, where there are quite a few hundred trees it will pay well to get an improved evaporator, as the work is done quickly, an essential feature, and the quality is superior.

THE VALUE OF THE MAPLE TREE.

There is a business as well a sentimental reason why the maple tree should be honored by Canadians. According to the census of 1891 the annual production of maple sugar in Ontario amounted to 5,665,796 lbs., which, at average market prices, means almost half a million of money.

It is claimed that the sugar bush at the Michigan Agricultural College yields an annual return of twelve per cent. valuing the woodland at fifty dollars an acre. Many Canadian farmers could testify to the value of their maple bush as a very profitable portion of their farm. Besides supplying the fuel needed on the farm a fair maple bush can easily make ten dollars an acre in syrup or sugar per year. This too, at a season when time can be spared to attend to the work. Besides its usefulness in supplying a delicious food, the maple is much used in cabinet making and for interior decorations. People in other countries admire it and value it, if we do not.

Those who have a good bush should take good care of it. Encourage young maple trees to grow; if they don't spring up naturally plant them in vacant places in the woods and so renew the timber. There are odd corners on many farms that could be very profitably planted with maple trees.

HARNESS BRUISES.

Continuous pressure of the harness or collar upon a part not accustomed to it compresses the blood vessels so that the normal flow of blood is checked. The walls of the tiny blood vessels are bruised and partially paralyzed. Then as soon as the pressure is removed the blood rushes into the weakened vessels distending them. The serum of the blood flows through the weakened walls and accumulates under the skin, thus originating the soft, puffy swellings so often seen on the shoulders. If these swellings are not removed either by being absorbed into the blood again or by an incision they will become calloused and permanent.

Knowing how these swellings are caused we should be the more careful to see that the causes are removed. Always use the same collar on a horse, provided, of course, that it fits him properly. Frequent changes of collar will invariably cause sore places.

Most farm horses have not been very busy during the winter and their shoulders are more or less soft and should be gradually broken into hard work. With horses that are particularly soft stop frequently, lift the collars and rub the shoulders, this will help to restore the circulation. Keep the shoulders dry, if possible. If neces-

sary have a cloth handy to wipe them with if the horse sweats excessively. Remember how sweating softens your own hands.

When the harness is removed bathe the parts where the harness rests with cold water. This has a tendency to contract the muscles and thus prevent inflammation and the consequent swelling. Should a swelling appear it should be well bathed with cold water so long as there is any inflammation. It is a good plan to use ice in the water to make it cold. When work on the land begins watch the horses' necks especially when they are working on a tongue.

A little careful attention from now until seeding time will be well repaid. When you begin seeding don't go at it with a big rush the first day, let the horses take it easy for a day or two, they will more than make up the lost time to you before the seeding is through.

THE HOT BED.

It will not be long until it is time to start the hot bed. Every farmer should have one. If you haven't one, set to work and make one. Many farmers have old sash lying around that would make good glass for a hot bed. Sometimes old storm sash can be obtained cheaply and they answer well. Having selected your sash, make a frame to suit it. On page 102, measurements of a convenient sized hot bed are given. Anyone handy with tools can make a good frame.

Sometime before you are ready to use the hot bed, make up a pile of good stable manure (largely horse manure) large enough to cover the entire bottom of the intended hot bed 18 inches deep. Let it heat a few days then turn it over and let it heat another week. Now make up a bed of this manure 18 inches deep and a foot larger all round than the size of your frame; water, and tramp it down solid. Place the frame upon it and bank up around the manure and frame with more manure. On top of the manure in the frame put in five inches of fine garden mould, no matter if it is frozen it will soon thaw out. If you can't get that, go to the woods and get some nice leaf mould. Put on the glass and allow the hot bed to work off its excessive heat. Place a thermometer in the soil and when the temperature remains constant at 80° the ground can be got ready for sowing and the seed put in. If the temperature is too high wait until it cools down or the plants will be burned out. Sow radishes and lettuce for the first crop; cabbage, cauliflower, tomatoes, etc., can come on for a second crop.

As soon as the sun's heat begins to warm up the bed and the temperature rises, it may be necessary to open the sash a little to regulate it. But this can soon be learned and a great deal of pleasure and profit will be obtained from the hot bed.

COVERING FOR WOUNDS OF TREES.

It often happens that, either by intention, as in pruning, or by accident, trees are wounded in various ways. A common practice is to cover large wounds with coal tar; but this is objected to by some as injurious to the tree. Experiments made in the or-