

a crop of grey stone turnips, if you cared to grow this variety. If the season was favorable, of course, you might come out with a good crop of millet, since two months is long enough to give you a crop well worth harvesting.—J. H. G.

### To Eradicate Bindweed

In some of my little 1-acre two or three large patches of bindweed. We are summer following two of the fields, and the other is in mixed grain. Will the threshing be apt to throw any out in the straw stack? We do not know much about bindweed. We have plowed ours twice in one week's time. Will it be all right to sow those pieces to buckwheat along with the rest of the field. Can we get rid of it by any reasonable means, and which is the best way?

Is there such a thing as wild cucumber.

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and can it be got rid of easily? How? Kindly reply and oblige, and tell us the best way to handle bindweed, and if it will do any harm in the buckwheat?—A. S. Durham Co., Ont.

Re bindweed, I would say that the best treatment is to introduce a hoed crop into the field as soon as possible. More or less of the seed is sure to get into the straw as well as into the grain, and the bindweed seed ripens quicker than the oats and other grain; thus a lot of it is shelled on the ground where it is growing, and thus comes up again the next year.

The field you mention might very safely be sown to buckwheat with a reasonable hope of destroying a lot of it that way. The safest way, however, as already stated, is to get the field as soon as possible into a hoed crop, and if you could plow and cultivate in August previous to growing roots or corn, this combination of summer fallow and hoed crop would be almost sure to entirely rid the field of the weed.

I have heard the name wild cucumber mentioned but do not know any weed under that name. There is a cultivated vine grown more or less widely which is known by that name, but I have never heard this vine being considered as a weed.—J. H. G.

### To Farm on Light Land

Would you be kind enough to tell me what kind of crops would be best to grow on light sandy ground? The top soil is about three inches in depth, is composed of a light tuff nature, while the under is sand more or less.

It is almost impossible to plow the land without turning the sand to the top, and appears to want quite a bit of manure to get any kind of a crop off.

Would fruit trees do well on this land? What would be the best method to handle the poultry manure for the land?

I have two hundred acres in Muskoka, and tried farming two years ago but it proved a failure, partly on account of the dry season and of the nature of the land. I would like to try it again if I could only find out what would be the best way to handle the land and what would be the most encouraging branch of farming to take up.

I intend, if possible, to go into poultry mostly, as I like the work, and have kept them quite a while on a small scale.

Would it be possible to grow oats and spring wheat as well as grain necessary for poultry food?—T. W. Toronto, Ont.

In the first place such land as you describe is suited for dairy farming, pork production, poultry and fruit. The latter will, of course, be influenced very materially by local climatic conditions, or by slopes, exposures, etc.

I would advise you to select the best of your land and to follow thereon a three-year-rotation: First year, corn; second year, oats seeded down with timothy and clover; third year, clover hay. Follow this clover hay with corn, applying your manure on this crop, and if you wish to grow roots and potatoes to a certain extent, you should put them in the same field. Corn should always be followed by grain seeded down to clover, a liberal seeding of clover, say 10 to 12 lb. an acre, which should again be followed by corn.

Keep as many dairy cattle as you

possibly can, but be sure that they are all good ones, that is cows that will give you a good return for your investment in money and labor.

I would suggest for your district of Muskoka good grade Ayrshires and a pure-bred Ayrshire bull.

If you have only 10 acres of decently fertile land on your farm then start with the 10 acres, and gradually bring other areas as convenient to the buildings as possible into a fair state of fertility by pasturing, then plowing and sowing such crops as buckwheat and rye to be turned under a green manure. In this way you will gradually get a certain amount of humus in the soil, which will permit you to get decent returns when you sow to corn, etc., as indicated in the rotation described above.

For swine, I would suggest your growing each year a small amount of roots, mangels and rape; the roots for winter feeding, the rape for summer selling.

I would suggest that you build a silo as soon as possible after you get into the farm. In fact, if you really intend farming, I would suggest that you start right off by building a silo, since on such land as you describe, the silo is practically the whole thing.—J. H. G.

## HORTICULTURE

### Fruit Prospects in Nova Scotia

P. L. Morse, Kings County, N.S.

The fruit crop is now far enough advanced to make a prediction as to the quantity and quality of the crop which will be harvested in the Annapolis Valley this year. Last year, the exportation of apples from this valley was 750,000 barrels. The average for the last seven years has been 500,000 barrels. This year, 200,000 barrels is a conservative estimate as there will not be more than one-tenth of a crop. Many large growers say that they will not get more than one-tenth of a crop.

There was a lot of speculation at the beginning of the season as to the cause of this serious shortage. Many thought that the bud moth had something to do with it, but this cannot be the case. The epidemic at present is that the severe freeze of April 25th killed the buds as they were fully two weeks ahead of the usual development at that date.

The quality of the crop promises to be good although the weather has not been ideal. However, as spraying is almost universal, we can almost always count on good quality fruit. The variety of the trees now looked better and all indication point to a bumper crop next year.

### Cover Crops for the Orchard

S. H. Neville, Oxford Co., Ont.

In an orchard which has had clean cultivation in the early part of the summer the trees will be making rapid and healthy growth. Towards the end of July or the first of August, it is advisable to sow a cover crop in the orchard. A cover crop has a beneficial influence on both the soil and the trees. The cover crop prevents hard soil from cementing or puddling, holds the rains or snows until they have time to soak into the land, dries out the soil in spring, and sometimes serves as a protection from frost. It improves the chemical conditions of the soils in that it adds humus, renders plant food available, and, if the crop is leguminous, will collect nitrogen from the air. A cover crop also keeps down the weeds.

An orchard which is well cultivated right through into the late fall will produce a strong growth of new wood and keep up this growth so late in the fall that the new wood has not a

chance to harden and become seasoned. Hence such trees are more subject to winter killing than those in orchards where cover crops have been sown. The cover crop appropriates much of the food in the soil for its own use, thus checking the excessive wood growth on the trees and giving the wood a chance to harden for winter.

Three of our most common cover crops are buckwheat, vetches, and clover. Buckwheat affords a good heavy cover, and may or may not be harvested. Vetches and clover have the advantage over buckwheat in that they are leguminous plants, and add the supply of nitrogen in the soil.

Cover crops, if they have made good growth, will interfere with the harvesting of the fruit crop in the fall.

When such is the case, they may be cut off with the mower and the crop left on the ground to rot or they may be smoothed down with a plank drag. To remove the crop from the orchard altogether is to remove a great deal of fertility, which is not always available for the trees the following year.

### Blackleg of Potatoes

Our potatoes have a peculiar disease which differs from ordinary potato blight.

The stock turns black at the bottom and follows along up until the leaves first wilt, then turn yellow and die. What is the disease, and what treatment for it?—G. T. M., Yale-Cariboo, B. C.

It is impossible to diagnose a disease from such a vague description. There is a general similarity between the symptoms mentioned and those of a potato disease known as black leg. The disease is well distributed over North America, but has not been a serious cause of loss. It is usually worse on wet soils.

The treatment here recommended is entirely preventive. Select seed, if possible, from fields on which the disease has not appeared. Do not use seed potatoes, and do not use seed for seed purposes, all tubers which have wounds, cracks or decayed areas. Disinfect all seed tubers with corrosive sublimate before cutting. Spread the seed tubers in a shallow layer in a dry place exposed to the direct rays of the sun for several days would be an excellent supplementary practice, and tend to hasten germination as well.—W. Eastham, Department of Botany, O.A.C., Guelph, Ont.

### Thinning Fruit

It is the production of seed which saps the vitality from the fruit tree. Consequently if trees are allowed to overbear, exhaustion ensues, and a year is needed to recuperate. This is the reason why most trees only bear every other year. If, however, thinning is performed judiciously, the trees from the first year on, will produce seed production, turns its attention to perfecting the fruit left on it; hence there is a large percentage of No. 1 fruit and fewer culls. They too, if fruit touch one another, then the spray cannot find access, and as at the point of contact the skin is thinner insects which feed on the fruit find entrance, and thus are thinning both the fruits where they touch.

The above are some of the reasons for thinning fruit as given in the July issue, by the British Columbia correspondent of the Canadian Horticulturist, a monthly fruit magazine, published at Peterboro, Ont. As a guide when thinning fruit, this correspondent gives the rule that it should be thinned so that when matured no two fruits shall touch one another. Intelligent spraying and pruning are also essential to the production of a less fruit crop.

Other timely and instructive articles on apple growing in Ontario, control of codling moth, peach leaf curl, and the text of the new Destructive Insects and Pests Act will appear in the July issue. A copy may be had on application to the above address.

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