

becomes necessary to plow deep furrows in advance of their line of march. The progress of the caterpillars is thus stopped, and when a furrow is entered by them, a log drawn by a horse may be dragged through it, and the cutworms will in this way be crushed. If post-holes are dug in the furrows at intervals of about ten or fifteen feet apart, a large number of the cutworms will fall into them, and they can then be killed easily by means of the blunt end of a post, or such object, or by pouring a little coal oil over them.

A bulletin on cutworms and armyworms, and their control, is now being printed for general distribution, and copies of this publication may be had on application to the Division of Entomology, Central Experimental Farm, Ottawa.

Topical Fruit Notes.

The question of cultivation is probably the main one engaging the attention of our fruit-growers at the present time. The earliness of the operation is important, and cultivation should begin as soon as the ground will permit, so that the maximum of growth can be attained before midsummer. Peaches, especially, require early cultivation. Besides forcing early growth, the earlier the cultivation is begun, and a surface mulch formed, the greater will be the amount of soil moisture retained for subsequent periods of drouth which the fruit-grower nearly always has to contend with. It has been estimated that "a delay of one week in cultivation may rob the soil of from one to two inches of water, an amount sufficient to tide the crop over a critical period of a drouth." Of course, it is not contended that a grower can get right at such work as he would like; there is so much to be done at once. But this question of early cultivation I believe to be one of most vital importance. It will take the place of a heavy application of manure or fertilizer upon ground otherwise unfitted; in fact, proper cultivation is the best kind of "manure." It will aerate the soil, and make conditions more suitable for the liberation and utilization of plant food already in the soil. It will also allow the soil to be got in the best condition physically, so that during the remainder of the season it is a pleasure to work with. How much easier it is to work properly-tilled and mellow soil than hard, dry, lumpy ground that has been broken up too late.

Proper cultivation, with skillful pruning, will also overcome a vexed question which invariably crops up later in the season, viz., what shall we do with our inferior fruit? The order business requires a certain amount for a cheap trade; the jam factories or evaporators take the most, or should get it; but the best solution is to produce as little of it as possible, and this we can accomplish greatly by timely and thorough cultivation.

Whether we shall plow or cultivate deep or shallow, depends greatly on such factors as soil, kind of fruit, method of pruning. Our heavier soils, I think, should be plowed to get the best of tilth; lighter soils, such as the deep sand, usually planted to peaches, can be kept in sufficient tilth by shallow cultivation. Certain fruits, such as currants and gooseberries, that are shallow-rooted, should not be worked too deeply. If very low pruning is practiced, especially with peaches, it is impracticable to plow, and extension disks and cultivators are solely employed. If the ground is weedy and hard, the plow is necessary in nearly every case. So it must be, then, that the grower must consider these different factors, and employ a system most suitable to his conditions. But whatever the system, earliness is the principle consideration.

Nursery stock is pretty well all out, and planting mostly done. It has meant a heavy rush, with a shortage of help. Could not a lot of this planting be done in the fall? The Horticulturist at the Missouri Agricultural Station, where winter conditions are severe, has obtained more satisfactory results with apple trees planted in the fall, as compared with those planted in the spring. The results show a considerable increase in the growth development of the autumn-planted over the spring-planted trees. It was also noted that new root-growth began to form very quickly on the trees planted in autumn, whereas roots did not begin to form abundantly in the spring-planted trees until about two months after the trees had been transplanted. Wounds caused by root and by branch pruning started to callous quickly in the fall, indicating that the plant-food materials were in a condition to be transported and utilized for this purpose, even though there was no visible pushing of the buds or growing tips. Root-growth on autumn-transplanted trees appears to continue until the frost reaches the growing root in question. Observations by the same Horticulturist led him to believe that apples, pears, plums and cherries generally do better in Missouri if transplanted in autumn, but that peach trees should be planted in spring. If we

could plant in the fall, besides getting a better and quicker growth, as shown, we would overcome a serious problem of trying to do everything at once in a few weeks in spring, especially when the spring is backward, as it has been this season.

At the third Dominion Conference of Fruit-growers, recently held at Ottawa, A. W. Peart, of Burlington, placed the apple acreage of Canada at 252,657 acres. In the three north-western corner States across the border—Washington, Oregon and Idaho—the State Horticultural Inspector of Idaho estimates 350,000 acres of orchard. In Washington alone, it is authoritatively stated that there are 185,671 acres of apple orchards. And these are comparatively young States. Also, most of these trees are young, as considerably over half are three years and under. Each may draw his own conclusions, but it seems to me that if the Americans do not fear overproduction, we Canadians are far away underplanted. However, even boundaries and tariffs do not altogether control the price of apples, which, like the price of wheat and the more staple commodities, is more governed by the world-wide production.

Co-operative fruit-growers' associations still continue to crop up in different parts of the Niagara District, and none that I know about have yet suspended business. It is a healthy sign, and if too great results are not looked for all at once, and too top-heavy organizations not developed, in time—and that, I hope, not far distant—this district will derive wonderful benefits from the movement. W. R. D. Wentworth Co., Ont.

THE FARM BULLETIN.

"Start Something."

By Peter McArthur.

In some business offices they have nicely-framed and distinctly printed mottoes which read:

"If you want to know who is boss here, start something."

Every farmer in the country should have his women folks work out that motto for him in spatter-work, or in lamb's wool on perforated card-board, or embroider it on the pillow-shams. He should have it where he could see it first thing in the morning and last thing at night, and perhaps a few times during the day when he comes to the house to get a drink of water or a piece of binder twine to mend the harness. He should get these few words fixed in his mind, so that when the Member of Parliament comes hand-shaking around to look after his fences, he would be ready to "start something." If he only did that, he would probably be mightily surprised to find that he is boss himself. It is strange how completely people have forgotten that, though their forefathers won the right to boss things only after struggling for thousands of years. The only part of history worth studying is made up of accounts of that struggle, and yet at almost every election we allow ourselves to be cheated out of our right to say how the country is to be governed.

As there is no election in sight just now, it is

an excellent time for the sovereign voter to "start something," and show that he is boss. I have reason to believe that we are all pretty well agreed that the Bank Act should be revised so as to provide for some form of Government inspection that would put a stop to reckless or dangerous management. We are also agreed that promoters should not be allowed to float companies that will get monopolies and force people to pay huge annual dividends on watered or fraudulent stock. As yet, neither of these questions is in politics. Neither political party has suggested what it proposes to do in the matter. It is simply a business proposition that touches every man, woman and child in the country. There couldn't be a better or cleaner subject on which to exercise the power that we really have in our hands. No matter what side your member is on, you can make it clear to him that you think these reforms should be put through, and then all you will have to do will be to watch him get busy. If he does what you want, you will know that you have the right man for your representative; but if he does not, you can attend to his case in the next election.

If your representative is the right sort of man, and many of them are, he will be glad to talk matters over with you in a serious way. You may be able to give him some light on the subject that he will be glad to get, and he may be able to give you some that you should receive in the same spirit. Almost any member of Parliament will tell you that his great difficulty is that people will not take the trouble to tell him what they are thinking about public questions, and then if things go wrong they jump on him. This is unfair, of course, and you should not let it happen any more. Tell him what you have on your mind, and he may be just the man to set things right. Give him a fair chance.

But if your member is a professional politician, a jollier, one of the hip-hurrah boys, there are ways of halter-breaking him and making him eat out of your hand. No one yields to pressure more quickly than a professional politician. If you start to chase him, you can't chase him far before he will put on an extra spurt of speed, yell "Come on, boys," and try to fool you into thinking that he is leading you. If your member is of that kind, you should be able to have some excellent sport with him. Some time ago, I read a description of an American politician which struck me as being very true of a certain type. This good man was always ready to join in when the people were doing anything, no matter what it was. If he saw a crowd running and yelling down the street, he would join right in with a

"Yip! Yip! Yip!"

He would keep on running and cheering until he saw a friendly face, and then he would ask through the corner of his mouth:

"What's going on?"

"Dog fight."

"Oh!" Then he would laugh and drop out of the crowd. But if his friend said, "We're going to hang a financier," Mr. Politician would spread himself to his speed limit, get to the scene of the trouble in time to see that the halter was properly adjusted, and when the work was done would take his place under the lime-light to catch all the bouquets that were being thrown. We have some politicians of his type, and the way to catch them is to "start something," and they will join in every time. The only trouble is that,



Slow Progress.

In justice to ourselves as a class, might we not put forth a little more effort in this direction.