



#### Ontario Apples Ready for Shipment to the Western Markets

Some idea of the extent of Ontario's consignments of apples to the west may be gained from this illustration, which represents one day's shipments at Point Edward, Ont., to the west.

vince. There is, however, this difference: Norfolk farmers have learned that the small area on which their orchards stand could be made the most profitable part of their farm. It took time and patience to show this, but under the practical stimulus of Jas. E. Johnson, the energetic manager of the Fruit Growers' Association, this has been realized.

It is from these orchards, scattered all over the county, that the high class fruit is secured for the Toronto Fruit

Show. How do they select it? This is done very systematically. In estimating the amount of fruit the association will have to market, notification is given where the best fruit is being produced for that season.

In doing their picking and packing in the fall, these growers are able to forward some of their best to the central storage in Simcoe where it is later carefully sorted and packed in the boxes as you see it each year at the Exhibition held in Toronto in November.

### More Anent Fall Plowing

F. W. Brady, Kamloops, B. C.

I have read with interest the article on fall plowing which appeared in the October issue of *The Canadian Horticulturist*. As my first experience with fruit was obtained in the Cornwallis Valley of Nova Scotia, I know that with the conditions under which Mr. Blanchard writes, fall plowing may have some advantages. In the interior of British Columbia, and in the colder parts of Nova Scotia, New Brunswick, Quebec or Ontario, however, I would not advise fall plowing under any circumstances. It is directly injurious.

The practice of sowing a cover crop has become general in these colder districts. The great advantage of this cover crop is that it holds the snow, prevents deep freezing of the soil and thus protects the roots during winter.

During the winter of 1907-9, I demonstrated in the Kootenay district the benefit of having a cover crop. Of two orchards side by side, one had a cover crop the other had not—in the latter about

twenty-five per cent. of the trees winter-killed. When plowed under in the fall the protection which a cover crop affords is lost. Then, too, fall plowing opens up the soil, the roots dry out, and winter killing results.

#### DANGER IN MILD DISTRICTS

Even in such favored sections as the Annapolis Valley or the Niagara District fall plowing has its disadvantages. If begun too early, as in September or early October, the trees may take on renewed vigor and not become fully dormant, hence winter injury results.

With cover crops which live over the spring, much additional humus is added to the soil if they are not plowed down in the fall. Although fall plowing increases the amount of available plant food it is an open question in my mind if any gain may not be lost by washing and leeching of the soil. When fall plowing is practiced the furrows are generally thrown against the trees. Quite often the soil freezes to the trunks, the bark is injured

and collar rot or canker may set in. Should the orchard be in bearing it is a much easier matter to work under the trees in the spring because in the fall the branches have not had time to gain a more upright position after having been bent down with a load of fruit. Late fall or early spring spraying with concentrated lime sulphur or white wash is a much more pleasant operation when one is not obliged to drive over furrows.

#### A DIFFERENT VIEW

Whether or not time is saved by fall plowing is, I believe, a debatable question. More particularly when a large crop is to be handled, the energy and equipment of the grower are then taxed to the limit to get the crop picked, packed and marketed. Under such conditions it is advisable to put off plowing until the spring and begin then as early as possible.

### The Fall Web Worm

A pest frequently noticed in the orchard during the month of August is the fall web worm (*Hyphantria textor*). This insect should not be confused with the tent caterpillar (*Malacosoma americana*), which builds its nest earlier in the season. At the time when the web worm appears on the branches of the trees the tent caterpillar is in the egg stage.

Close observation will reveal that these two insects are quite dissimilar in habits. Probably the most notable difference is in the character of the web. The web of the tent caterpillar is usually found in the crotch of limbs, while that of the web worm is generally seen on the ends of the branches. The tent caterpillars remain in the web during the night, or when resting, and emerge only at feeding time. The web worm does not leave the web at all and extends the web as new feeding ground is required. For this reason the web becomes very unsightly, being filled with the cast-off skins and excrement of the insects. In feeding habits these two insects are also quite different. The tent caterpillar devours the whole leaf, while the web worm feeds only on the upper surface, giving the leaves that characteristic brown appearance.

The parent moth of this caterpillar is pure white in appearance with occasional black spots. It spends the winter in a cocoon and appears in early summer. The eggs are laid in patches on the under side of the leaves. The caterpillars emerge in July and August, and at once proceed to form their web. When full grown they are about one inch in length. They then spin their cocoon and pass the winter in this stage.

The most convenient method of combating this pest is to cut off the webs as soon as they are noticeable. As the webs are usually found at the ends of