



Thinning in Nicholl Orchard, Welcome, Ont.

an acre. The average net profit then was \$95.60 an acre for ten years. Adding to this the twenty-five dollars an acre charge for interest on investment, the actual annual dividend has been \$120.60 an acre, or 24.12 per cent on \$500.

The author of the bulletin from which this summary is taken states as his opinion that the profit is greater than the average orchardist receives, but it is not abnormal for a well cared for orchard.

Cultivating the Young Orchard

B. H. C. Blanchard, Hants Co., N.S.

Too much stress cannot be laid upon the importance of cultivating the young, growing orchard. In most young orchards intercropping is practised. If the crop be a hoed crop or small fruits, the orchard trees probably get their share of cultivation. but if the intercrop be grain or hay such is not always the case.

Not many orchardists allow a crop of hay or grain to grow up close to the trees; a space of several feet is usually left clear on each side of the rows, but not a few neglect to cultivate this uncropped area. In our own orchard more than a year ago we were treated to an object lesson of the value of cultivation.

This orchard was planted three years ago. Each tree received a dressing of farmyard manure at planting time. In spite of a dry season the loss was less than three per cent. Between the trees were turnips and mangels; adjoining was a field of grain seeded down. The orchard received cultivation during the

summer, and in the fall we applied another dressing of manure.

The next year we intercropped with strawberries, potatoes and mangels and cultivated as before. The row next to the hay field was an exception. This row was cultivated on the side next to the root crop, but the hay was allowed to grow close up to the trees on the other side. As the season advanced it became evident that this particular row was not making the same growth that the others were. The leaves had less color and the trees as a lot had a less thrifty appearance.

Aside from cultivation all the trees received the same treatment. During the

summer they received an application of ammonium sulphate. To us the condition of these trees was ample proof that a growing orchard should not be expected to flourish when proper cultivation is lacking or when it is obliged to dispute with a crop of hay for its food supply.

Cultivation late in the season is not advisable, as the growth made may not mature early enough and injury result. But during the summer growing season cultivation is essential to place the plant food in the most available form and conserve soil moisture. It is false economy to give the young orchard anything but the very best attention.

The Why of Summer Pruning

F. W. Brady, Canning, N. S.

THE object of summer pruning is to increase the number of fruit spurs and fruit buds. A common fault with much of the pruning of young trees that is done is that all the suckers are cut off, leaving a long bare stem.

This is bad practice for two reasons. First, there are no fruit spurs on the lower parts of the limbs and consequently the area upon which the tree can bear fruit is limited to a portion of the outer end of the branches. Second, the leverage produced by the fruit being at the end of the branches is so great that they either lie on the ground and the fruit becomes soiled or else they break because of the load.

WINTER PRUNING AN AID

It is often possible to correct this fault by cutting back severely in the winter or early spring. This forces adventitious buds or causes those that have been dormant to grow. When a good growth of water sprouts, or suckers as they are sometimes called, has been obtained in this way they may be pinched back. Thus fruit spurs will be produced upon the limbs near the trunk, which is the proper place for them.

The time for summer pruning depends upon the climate and period of growth. Pruning in June will not be effective if there is a period of growth after the summer dry spell. Instead of fruit spurs many branches will be formed on the limbs. Under such conditions pruning must be done later. If, however, the season of growth ends in June, pruning in the latter part of that month is usually effective.

DEPENDS ON FOOD SUPPLY

The physiology of summer pruning is a matter of food supply. The food that is being prepared for the buds of next year would naturally pass on to the leaves. But as the terminal leaves of a pinched stem have been removed, the food is stored at the end of the stem.

Thus at this point a strong fruit bud is usually secured. As a fruit bud is only a better fed leaf bud the reason is at once apparent. I might state that four years' experience in British Columbia had convinced me that the western man is more keenly alive to this fact than is his eastern brother.

The method just outlined is intended for young trees. For old stock a simpler plan may be adopted—pinching back late in the growing season. The food will be stored in the remaining wood and the growth of fruit buds encouraged.

The larva of the Lesser Peach Borer looks like that of the ordinary Peach Borer and the adult also resembles it, but the female has not the orange band around the abdomen. The life history of both insects is very similar. The main difference is that the Lesser Peach Borer attacks chiefly above ground, including the larger branches as well as the trunk. It regularly enters only where there has been a wound. This suggests that the proper means of control is to dig out the larvae when present, and endeavor by careful pruning and orchard practice to have as few wounds on the trees as possible. Where wounds are made they should, so far as practicable, be cleaned out with a knife and painted with white paint diluted with linseed oil. This insect as a rule is not very common. It attacks cherry and plum trees, as well as peaches.—Prof. L. Caesar Provincial Entomologist, Ontario.

Many of our best varieties of strawberries have pistillate or imperfect flowers, and one must be careful to provide staminate or perfect-flowering varieties close to them. The beds of staminate and pistillate varieties could alternate; that is, five rows of one, then the path, and five rows of the other.—W. A. Dier, Ottawa, Ont.