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Thinning the Apple Crop a Profitable Operation

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THINNING the apple crop is the last feature of improved orchard culture a grower will take up. The object is to improve the quality of the fruit. The first steps in orcharding are proper cultivation, pruning and spraying. In our work in these counties (Durham and Northumberland) we have found it hard to persuade many farmers to undertake these tasks. The majority of them are not ready for thinning.

Many think that it is a very expensive operation. In our demonstration orchards we have thinned trees at a cost of sixty cents a tree. These apples had to be picked anyway, and it was much cheaper to snip them off when small and allow them to fall to the ground than to pick and pack them in the fall.

By thinning, the percentage of culls is reduced very greatly. These are not only of small value themselves but they lower the value of the entire pack. Considering the increased value of number ones resulting, P. C. Dempsey, an extensive apple grower of Trenton, Northumberland County, argues that the culls thus taken away are selling really at nine dollars a barrel.

The work is in its infancy in Ontario. In some orchards in Durham and Northumberland counties, experiments have been conducted, and some also in Norfolk. W. J. Schuyler, fruit specialist of Norfolk county, in the employ of the Ontario fruit branch, states that a system of thinning will bring uniform crops. In the natural state trees bear apples uniformly one year with another. But when unfavorable weather conditions produce a failure one year a very heavy set of fruit is produced the next. The tree cannot bring this abnormal crop to maturity and at the same time develop a strong growth of fruit spurs. When the apples are thinned abnormal crops do not exist, and fewer off years occur. By thinning before the seeds are developed a great deal of food is saved for the tree also. Of course some varieties do not require thinning as do others. The Duchess, Wealthy, Snow, Russet and in some cases the Spy, are especially benefited in our counties.

In 1912 experiments were conducted in two of our demonstration orchards. In one at Colborne, in Northumberland county, a few Snow trees were selected. The apples were thinned when about the

size of hickory nuts. They were taken off with thinning shears and all the work was done from ladders. The intention was to thin all clusters to one specimen and to leave no apples close enough together so as to touch each other or in such a position that they would rub against a limb or a twig when mature. The quality of apples on thinned trees was much superior to that of those on unthinned trees. But the thinning was not severe enough. When the apples matured it was found that full allowance had not been made for their increase in size.

The result from two trees under identical conditions was:

Thinned tree—Six barrels number ones; three-quarters barrel number twos and one peck of culls.

Unthinned tree—Three barrels number ones; three barrels number twos, and two and a half barrels of culls.

In an orchard at Welcome, in Durham county, another experiment was made, this time with Duchess apples. The same methods were used as with the Snows. The results were:

Six thinned trees—Seventeen barrels number ones; three barrels number twos, no culls.

Six unthinned trees—Twelve barrels number ones; twelve barrels number twos and one-half barrel culls.

In this case the thinning should have been more thorough and more severe also. The three barrels of number twos equalled the number ones in size, but lacked color, and there were no culls at all. These trees were thinned at the rate of sixty cents a tree, three hours labor at twenty cents an hour being expended on each. It will be seen that the total crop was larger in the case of the unthinned trees.

The value of thinning rests in the increased percentage of number ones. If the entire crop is sold to a buyer at a flat rate for number ones and twos, there is very little profit in undertaking this work. But if the apples are sold through associations and are pro-rated according to class, as is done by the Norfolk Fruit Growers' Association, the profit is at once apparent. Consider the two Snow trees already mentioned. The 1912 price for number one Snows paid by the Norfolk Association was three dollars and ten cents, and for the number twos two dollars. The profit per tree would be something as follows:

Thinned Tree: Six barrels number one's at three dollars ten cents, eighteen dollars sixty cents; three-quarters of a barrel number two's at two dollars, one dollar fifty cents; cost of thinning, sixty cents; total, nineteen dollars fifty cents.

Unthinned Tree: Three barrels number one's at three dollars ten cents, nine dollars thirty cents; three barrels number two's at two dollars, six dollars; total, fifteen dollars thirty cents; profit, excluding culls, four dollars twenty cents.



Orchard Demonstration in Orchard of F. W. McConnell, Colborne, Ont.

This orchard gave a net profit of two hundred and fifteen dollars an acre in 1911.