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THINNING OF DECIDUOUS FRUITS

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In the absence of any artificial control of the crop, most varieties of fruit trees will set much more fruit than it is possible for the trees to bring to marketable size and this is particularly the case with stone fruits. Even under good cultural and weather conditions the trees are often unable to bring the fruit to satisfactory size unless thinning is practised.

Apart from damage to the tree by the breakage of limbs and the over-taxing of its resources, overcropping results in the production of a large proportion of small fruit, which besides embarrassing the grower by increasing the work and cost of picking, grading and packing, often brings a return considerably below the costs of production. This is particularly evident in a heavy crop year when small poor quality lines may be almost unsaleable. At the same time, however, buyers will usually pay good prices for fruit of good size and quality.

THIN EARLY

The size of the crop can be controlled only partly by winter pruning, but from the point of view of reducing the strain on the tree by overcropping and minimising the associated disability of biennial bearing, early thinning is essential. Thinning can be accomplished by the physical removal of surplus fruits when setting is completed or the blossoms can be sprayed with chemicals to achieve similar results. The use of blossom-thinning sprays is practised elsewhere, and experiments are being conducted in this State; however at the present time no definite recommendations can be made.

Fig. 1.—THINNING DELAWARE PLUMS—Note fruit on ground. In a heavy crop year up to 75% of the fruit may need to be removed in order to enable the remainder to develop satisfactorily.
After setting has taken place and the natural drop which follows is over, the grower can obtain a fairly accurate picture of the forth-coming crop. At this stage, thinning can be used effectively to reduce the quantity of fruit on each tree, to a number which can be brought up to a satisfactory size under normal weather conditions.

Successful thinning is based on a knowledge of local conditions. Having in mind the size of fruit required and normal moisture resources, the thinner must be able to visualise the amount of fruit each tree and each part of the tree is capable of carrying. Certain vigorous growths may be able to carry extra fruits, whereas some weak shoots may not be capable of maturing any. Each fruit must have sufficient room to grow, and best results will be achieved by spacing as evenly as possible over the whole tree; this applies also when the fruit on a light crop tree sets in clusters.

**DISCARD BLEMISHED FRUIT**

Thinning provides an excellent opportunity to discard fruit which is misshapen, blemished or damaged by insect pests or disease. Rejections can be made more cheaply at this stage than after deliveries have been made to the packing shed when the costs of picking and sorting have been incurred.

The earlier the thinning is carried out, the greater will be the effect on the remaining fruits and on blossom bud formation for the following year, but the most practicable time for this operation is when the natural drop has finished.

The quantity of fruit to be removed from fruit trees during the operation of thinning varies considerably. Some growers thin much more heavily than others but it is safe to say that trees are rarely overthinned. It is often necessary, particularly with Japanese plums, early apricots and some varieties of apples, to remove over 75 per cent. of the fruit. At the time it appears that excessive quantities of fruit are being removed and growers usually err on the side of under-thinning.

Generally speaking, at harvest time the volume of thinned fruit may be slightly less than the unthinned fruit. Nevertheless the difference is not very great and the improvement in quality, reduced handling costs and enhanced returns more than compensates for the reduction in quantity.

When removing the fruit, care should be taken not to damage those remaining. Each should be dislodged by a twisting and bending motion of the
thumb and forefinger and not just pulled off. In the case of clusters, care should be taken to allow the stem remnants to remain. If they are loosened at their points of attachments to the spur or lateral those left may fall later. Thinning snips can also be satisfactorily used.

**STONE FRUITS**

The thinning of stone fruits should be carried out before stone hardening commences. Because of the heavy crops that stone fruits often carry, they respond very readily to thinning. The amount of fruit removed will depend upon the various factors enumerated previously and it is therefore, difficult to suggest a limit. However, it is generally found that for average trees, peaches should be thinned to leave at least six inches between fruits except where the variety normally produces large fruits. For smaller fruits, such as apricots and plums, closer spacing is possible and for most varieties four inches is usually ample.

**APPELES**

Thinning is necessary for most varieties of apples although, where adequate irrigation is available, much less thinning is required and is usually restricted to short-stemmed varieties.

The individual grower knows by past experience how his trees will react to the conditions operating on his own orchard and will thin accordingly. The pro-
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procedure will however, vary with the variety.

Short Stemmed Varieties.—On short-stemmed varieties such as Jonathans, Rokewoods, Statesmen, Delicious, and Dunns the sooner the work is completed the better as, with growth, the clusters become tight and difficult to break successfully.

Under favourable conditions it is usual for these varieties to set up to five apples on each spur and, unless the individual clusters are thinned, a large proportion of the crop is lost through being undersized and through being pushed off.

Usually the centre apple which is referred to as the “Bull” or “King” is the first one thinned from the cluster. By removing this apple first the operator can then observe any blemished or malformed ones which can then also be removed and the remainder evenly spaced.

It is well to remember that short-stemmed varieties require more room for development than the longer-stemmed varieties and the apples must be spaced in such a way as to allow for expansion without crowding. The clusters are usually reduced to ones and twos and spaced approximately four inches apart.

Cleopatras.—During recent years Cleopatras, a medium-stemmed variety, have set in threes, twos and ones and very little thinning has been necessary. In heavy crop years Cleopatras should be thinned to twos and threes. However care should be taken with this variety not to reduce the crop to such an extent as to induce Bitter Pit.

On account of the spreading nature of the tree and the susceptibility of the variety to sunburn, care should be taken to ensure that the work is completed before the hot weather sets in, otherwise sunburn damage may occur on apples, exposed by the removal of apples protecting them.

Granny Smiths.—It is characteristic of the Granny Smith apple to “shed” or drop portion of its fruits over a con-
siderable period. Sometimes a final shedding may occur as late as December; it is thus preferable to delay thinning of this variety until shedding is finished. Under heavy crop conditions the fruit should be thinned to twos on spurs spaced approximately four inches apart.

Yates.—This late apple usually sets very heavily, and is perhaps the variety which responds most to early thinning. The fruit, except where grown under irrigation, should be thinned to ones and twos.

Unthinned, the variety rarely makes minimum size and financially can become a liability to the grower. On the other hand, a thinned crop, containing a large proportion of 2½ inch with some 2⅓'s and 2⅔'s can bring very attractive prices.

SUMMARY

Thinning Pays Dividends

1. Early thinning is necessary in heavy crop seasons to produce good quality fruit. Unthinned the crop may be worthless.
2. In light to medium crop years, clusters should also be thinned.
3. The work should be commenced immediately the natural shed is over. With stone fruits before stone hardening commences.
4. The fruit should be evenly spaced bearing in mind normal weather, moisture and cultural conditions. Vigorous laterals and spurs can carry more fruit than weak ones.

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