

or the engine can maintain or carry, a load of small, poor-quality fruits or breakage of the engine or tree will be the result. It might be illustrated in another way—that the load of fruit should act as the governor between the boiler and the engine, or the roots and the tops. It may be seen by the above comparisons that a good balance between the various parts of the tree is absolutely essential if the best results are to be expected. In winter pruning, the balance between the roots and the top of the tree is disturbed. When a portion of the top is cut off, the roots exert their whole force upon the smaller top, and heavy wood-growth is the result. On the other hand, if the pruning of the top is done during the summer, the growth is checked, because a portion of the leaves or the manufacturing part of the plant has been removed, and, as a consequence, there is a tendency to force the tree into fruiting. Thus by pruning at the proper time and in various degrees the balance of trees can be regulated. The quantity of fruit allowed to remain on the trees is, possibly, the best summer pruning that can be practised. It is then necessary to encourage the formation of fruit-spurs in young trees by cutting back all the stronger of the ingrowing branches, or those not required as main branches, to stubs of 6 or 7 inches in length, during the summer (about the middle of August to the middle of September). On these stubs fruit-spurs will generally form, and eventually fruit. All the weaker branches on the young trees should be allowed to remain unpruned unless they are over a foot in length, as these branches form fruit-spurs most freely in all fruit-trees excepting peaches. It is found, also, when the terminal shoots or leaders are not pruned back for a year, that the terminal bud, being the strongest, will grow into a branch, and a large proportion of the remaining buds will usually form fruit-spurs. The main branches can be headed back the following year fairly hard, for strength. By following the practice, the young trees may be forced into fruiting quite early. When the trees come into bearing, the system is to make the fruit do the majority of the pruning. In other words, judicious thinning of the fruit will more or less regulate the growth of the trees. Moderate winter pruning is always more likely to encourage the formation of fruit-spurs than is heavy pruning. After about the sixth year the pruning required on all trees except peaches should be very little. Heavy winter pruning, if necessary, should be done the winter previous to a heavy crop. The amount of fruit which will set can then be used as a check on the excessive growth which would naturally follow heavy winter pruning. The pruning of bearing trees is principally to open up the head, to allow for the penetration of light and air, to encourage or discourage the formation of fruit-spurs, according to the vigour of the tree, or to improve the size, colour, and quality of the fruit.

**SUMMARY: FOR SUCCESSFUL PRUNING OF ALL FRUIT-TREES  
EXCEPT PEACHES.**

*At Time of Setting One-year-olds.*—Cut back to about 24 to 30 inches from ground. If side branches are present, select the three most suitable, and cut back to an upper bud at about 6 to 8 inches from trunk. Start the first branch at about 15 inches from the ground.

*Firs. Year after Setting.*—Winter-prune, leaving three main side branches evenly distributed around the main stem on about 1 foot of space. Allow a leader to grow.

*Second Year.*—Summer-prune all stronger branches not required as main leaders to stubs about 6 inches in length. If leader branches are making