

mystery to many growers of these delicious fruits. Why prune them at all? There are two reasons, one of which has already been suggested. Winter comes on, at least in our climate, before the growth is completed, and usually destroys more or less of the immature and succulent terminal parts. It is better to remove this destroyed portion, because if left it continues to absorb and transmit by evaporation the sap brought up by the living part of the cane, thus robbing in a measure the fruit and foliage. This pruning would naturally be done in the spring as soon as the buds begin to swell. Earlier than this it would be difficult to decide how much to remove; later, the dead portion would have already wrought a part of its mischief.

The other reason for pruning is suggested chiefly, if not wholly, by the convenience of culture. The canes of the black-cap raspberry (*Rubus occidentalis*) grow to such a length as to greatly interfere with cultivating the plants and gathering the fruit unless they are dwarfed in some way by treatment. By permitting them to grow to their full length, and then cutting them back to a convenient stature, we should remove one-half or more of the fruit buds, and thus materially reduce the crop. We must prune them in such a way that while we keep them down to a size that is convenient for working among them we also preserve the flower-buds. To accomplish this we pinch the terminal shoot at the height of two to two and a half feet. This causes the buds in the axils of the leaves to develop into branches, and instead of a single cane six or eight feet in length we have half a dozen branches two feet or less long.

To the beginner it appears almost absurd to pinch a raspberry cane at the height of two feet. It seems as if the cane has but just commenced to grow, and that to pinch it at that height will prevent it growing taller. But it should be remembered that there are several nodes at the top of the stem that have not attained their full length, and which will continue to elongate for some days after the tip has been removed. A cane pinched at two feet will attain an ultimate height of three feet, which is sufficient.

It has often been recommended to pinch the branches when they have attained the length of a foot from the main cane. The wisdom of this is quite doubtful, at least in regions of severe winters. The effect of it is to cause axillary buds upon the branches to develop into shoots, and this will take place so late in the season that they have not time to make much growth, and, being immature, they are liable to kill back badly during winter. The result is that the buds that should have remained dormant until spring to furnish the flowers for the crop, have been forced into growth in late summer, while the tender buds upon these immature shoots—all that are now left to furnish the crop—have either been killed outright or severely weakened by the winter. It is doubtless, in the majority of cases, better to let the branches from the main cane grow undisturbed until autumn, and then cut them back as far as seems desirable at the spring pruning.