

trees or else be removed altogether. The Hawthorns are another class of trees akin to the Apple, and serve in a similar manner as breeding places for orchard pests; none should be suffered to grow near the fruit-trees. Both the Wild Cherry and the Wild Plum are also particularly dangerous from the serious fungus diseases to which they are liable, such as the Black-knot, Plum-pockets, Brown-rot and Shot-hole fungus, and which soon spread from them to healthy fruit-trees; the latter also harbors the Plum Curculio.

Clean cultivation is of quite as much importance as the application of remedies. Twigs and branches cut off when pruning should be burnt, all fallen fruit should be gathered up and destroyed, no rubbish of any kind should be permitted to remain in the orchard or garden. The trees themselves should be kept clean by scraping off all rough loose bark. All this should be done in order to leave no hiding place or shelter for insects during their chrysalis or pupal stage, and to compel them to seek elsewhere for winter quarters or perish. Spring and autumn, when work is not very pressing, are good times for a general cleaning up, and tree scraping may be done at any time during the winter when the weather happens to be mild. But the gathering up of fallen fruit should be done daily in order to leave no time for the Codling-worm, Apple-maggot, or other pest to escape.

The practice of clean cultivation is of prime importance also in checking or warding off the attacks of fungus diseases. The microscopic spores by which these diseases are spread are harbored to a large extent by fallen and rotting fruit, withered leaves, brushwood left from pruning, and rubbish of all sorts that may gather round the trees. The removal and disposal by burning or burying of all such waste matter in the autumn, or during the winter, will get rid of the hibernating forms of a large number of our worst fungus diseases as well as insect enemies.

Fruit-trees, especially the more tender sorts, are often injured during the winter by severe frosts following a period of mild weather; these injurious effects may be unnoticeable, but they are frequently sufficient to impair the vitality of the tree and to render it liable to the attacks of cankers and other diseases which in a healthy condition it would be able to resist. Furthermore, a tree may be planted in a soil or in a situation which is unsuited to that particular variety and may therefore fail to become sufficiently robust to resist diseases which in proper conditions it would entirely escape. These are matters too often overlooked by the fruit-grower and he is in consequence at a loss to account for the failure of his trees, which may be due to causes of this kind.

In the warfare against noxious insects Nature provides an army of assistants which in a natural condition of things would keep the destructive hordes in check, but where all vegetation is swept away to make room for a few cultivated varieties, the balance is upset and our friends