

becomes an easy prey to its enemies if something is not done ; something usually is done at about this period of the orchards' existence. Not infrequently it is seeded down to timothy and very often this grass is cut for hay. Of course the apple orchard at least, cannot well be kept under the plow all the time after it has come into full bearing because of the inconvenience of gathering the fruit on a plowed surface in the late, wet fall months. There is usually a better way than to keep an orchard constantly under the plow. First, clover should be raised so far as possible in the orchard, and it is not necessary to plow it up often as clover "catches" on sparsely seeded land, nearly as well without as with ploughing. This treatment usually provides sufficient nitrogen in conjunction with a little farm manure.

It should be kept clearly in mind that we are dealing with trees that have already occupied the ground for several years ; that have creamed the soil ; that have already trespassed upon and robbed their surrounding neighbors, and that in turn have been robbed ; and there is no escape from slow but certain starvation, sooner or later, if the trees are reasonably thick and nothing is done. First, in order to reach the best results the amount of fruit raised on a tree should not be large, and the quality should be of the best. We fail to learn quickly that quality is nearly everything, that numbers ruin, and quantity floods the market.

The fertility of the orchard will not be preserved by numbers of specimens, or quantity of product, both of which usually bring loss. Is it not possible to trim the orchard by the same rules which are observed in trimming grape vines ? Our grandfathers let their vines grow as they would and they never produced any really fine bunches of grapes. As soon as we learn to control and direct the growth of the vine, the value of the fruit increased a hundred-fold, while the least possible amount of fertility was removed from the land. Is it not quite possible that fertility might be conserved and the quality of, say King apples be greatly improved by reducing the length of the limbs upon which they grow ? Is it true that the nearer the total product of fruit is to the total product of food supply of the tree the better the results ? Or state it in another form, are the apples improved by transporting the plant food which produces them eighty feet through root and branch before they receive it ? Is the soil of the orchard being unnecessarily drawn upon by growing too much timber ?