

ground as far as they extend. Cropping between the rows, therefore, must gradually decrease as the trees increase in size, and should be discontinued altogether as soon as the trees fully occupy the ground.

Cultivation about the trees should never be so deep as to interfere with the roots. Shallow, level cultivation is much safer than plowing. By using the spring tooth cultivator to loosen up the ground, and the broad share cultivator to keep the weeds down, plowing may profitably be dispensed with altogether.

Cultivation should commence in the spring as soon as the ground is fit to work, and be continued as often as necessary until about the middle of August. By ceasing cultivation at that time the trees are more likely to stop growing and ripen up their wood so that it will not be injured by severe freezing. The frequency of cultivation necessary will depend much upon the soil and season. The aim should be to keep the surface soil loose and open, thus acting as a natural mulch and enabling the trees to withstand the injurious effects of drouth at any time.

**MANURING.** Manuring an orchard in order to obtain good crops of fruit is often just as necessary as manuring a field to get a good crop of corn or roots. In a young orchard where hoed-crops are grown, the manure applied to grow these profitably will be all that is required by the young trees, as they will get their share of it. The vigor of the hoed-crop will be a good indicator of the quantity of manure necessary for the trees. In older orchards where there is no cropping, the annual growth of the new wood is the best guide in applying manure.

As a general fertilizer nothing is better than barnyard manure, but it should be withheld where the new growth is excessive or where the wood growth is at the expense of fruit.

Unleached wood ashes are a specific fertilizer for fruit trees, as they contain all the inorganic elements necessary in producing both tree and fruit. Unlike barnyard manure they tend to promote fruitfulness rather than excessive wood growth, and may safely be applied at any time.

In applying fertilizers of any kind never bank them about the trunk of a tree, but spread them evenly all over the ground as far out as the roots extend.

**PRUNING.** One of the first things to be considered in pruning a young orchard is the height at which the heads should be started. Some prefer low heads and others high heads. Either extreme should be avoided. From four to four and a half feet is a convenient height for apple trees. To have them all alike cut them back when young to the desired height. Three branches are enough to leave to start the head. Space these evenly, and direct new growth when-