

# ORCHARD MANAGEMENT IN NEW ENGLAND\*

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**T**HERE are certain general factors which control orchard management in all countries. Briefly summarized, they are: Tillage, fertility, pruning, varieties, propagation and parasites.

The soil is a storehouse for plant food, and the object of tillage is to make this food available. For this purpose the physical condition, or the texture of the soil, is of the greatest moment. Most soils contain an abundance of plant food if the soil particles are sufficiently minute to allow the roots to lay hold of this food readily.

Plants take their food only in the form of solutions, which are absorbed by the root hairs, carried up through the tissues of the plant to the leaves, where they are digested; after which they are returned for the building up of the tissues and the formation of fruit buds. The root hairs lay hold on the film of moisture which surrounds each particle of soil, rather than upon the free water between the particles. For this reason it is of the greatest importance that the number of particles be as great as possible, thereby greatly increasing the area from which the food may be obtained.

Water which falls during the growing season is entirely inadequate for the growth of plants during that season, hence it is important that some provision be made for storing moisture which falls at other times. This can best be done by making the soil loose and porous, that it may act in the same way as does a sponge.

Besides providing a storage reservoir for moisture, it is necessary to prevent, so far as possible, the natural evaporation, in order that the water with the plant food in solution, may be forced to escape through the medium of the desired plants. The appearance of grass growing by the side of an old log or stone, as compared with that

at a little distance away, is a good illustration of the value of a mulch in conserving moisture. The best mulch or blanket for this purpose is a thin covering of dry earth, such as is provided by shallow cultivation.

## THE FERTILITY FACTOR.

The value of tillage in aiding chemical processes by warming the soil, admitting oxygen and decomposing organic matter, is self-evident, and a simple statement of fact is sufficient. Any land which will grow good farm crops will maintain a fruit plantation, but profit in fruit growing lies in securing superior quality. The amount of plant food to be added in any given case will depend on the amount of increase of profit which will result from such treatment. The successful merchant is the one who forces trade. The successful fruit grower is the one who produces the best and finds a market for it.

To get the best results keep the land at work. Weeds do not run out the land, but they use plant food for purposes which are not desired. The best treatment for weedy land is to give it thorough cultivation and to use more plants of a desirable character. The weedy farm is, as a rule, a poorly farmed farm.

## THE PRUNING FACTOR.

A tree is essentially a colony of individuals among which there is a constant struggle for existence. If left to nature the strongest, or those having the best position on the tree will survive, but to get the most satisfactory results the orchardist must prevent this natural struggle and give those branches which he desires to favor a better opportunity for life. The cutting of large limbs is not necessarily injurious to a tree, but it is advisable to go through the orchard every year and thus, as far as possible, avoid the necessity of removing large limbs.

\* Abstract of an address delivered at the annual winter convention of the Quebec, P. M. and F. G. S. N. E. 1914, held at Quebec, Que., Dec. 14, and 15.