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Fertilizers for the Orchard and Market Garden

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THE use of artificial fertilizers by market-gardeners and fruit-growers of late years has increased very considerably.

It is beginning to be generally recognized that fertilizers yield their best returns when applied to vegetable crops, and unless there be an abundant available supply of farmyard manure, it is a difficult matter to produce the maximum crop on a small piece of land without enrichment of the soil.

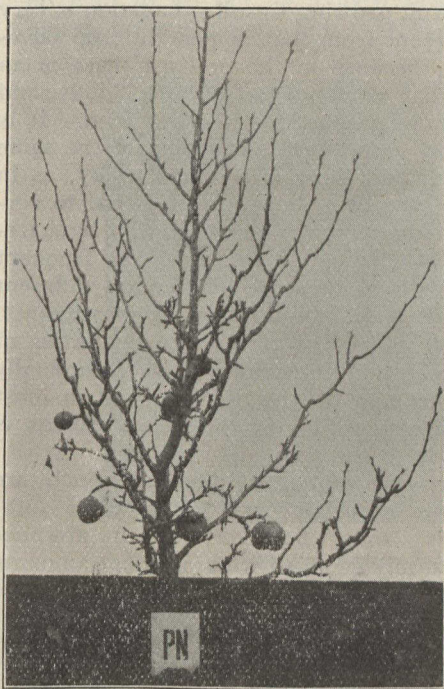
Many successful market-gardeners in the United States look upon artificial fertilizers as a very necessary adjunct to farmyard manure, and use it accordingly. Farmyard manure, while adding humus to the soil, and improving its physical texture and water holding power as nothing else can, does not, however, supply large amounts of fertilizing substances, and what is supplied is in a more or less unavailable form and cannot be used directly by the plant. For instance, there is no better method of

slowly building up the fertility of any soil than through the continued application of barnyard manure, and the ploughing down of leguminous crops, but if we want immediate results, as for instance the quick forcing and bringing to maturity of a crop of lettuce or radishes,

desires to check leaf and wood growth to a great extent and to stimulate the formation of fruit; the gardener desires to stimulate leaf growth, and does all in his power to do so, and further, his crops are harvested in the green or immature state.

THE PARTS THEY PLAY

Let us then look at the part that nitrogen, phosphoric acid and potash play in plant development. Nitrogen forces particularly leaf and stem growth, and thus induces rankness. Heavy applications late in the growing season, therefore, will hinder maturity and check development of fruit. The quickest acting, most soluble fertilizer containing nitrogen, is nitrate of soda. This material should be applied frequently in small quantities, rather than in one application, because of the ease with which it is leached from the soil. It can be applied very profitably to lettuce, radishes, celery, etc., in frequent small applications, but care must be taken to



Pear Tree

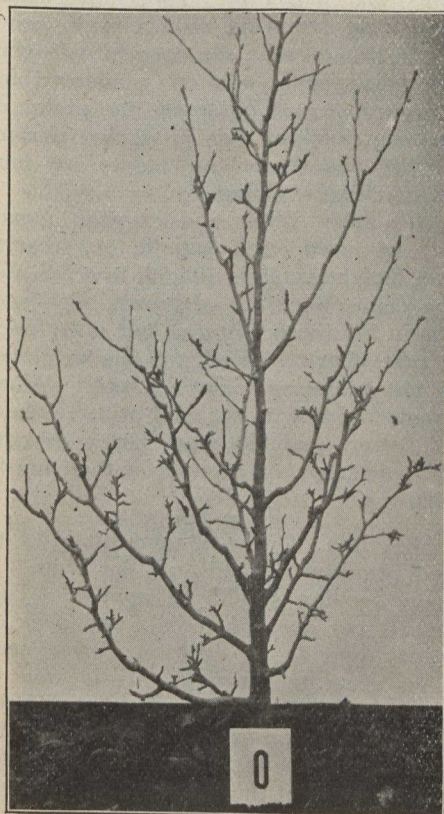
Fertilized with Phosphoric Acid and Nitrogen.

or a good, heavy, well-matured crop of tomatoes, we must adopt other means.

THREE ESSENTIALS

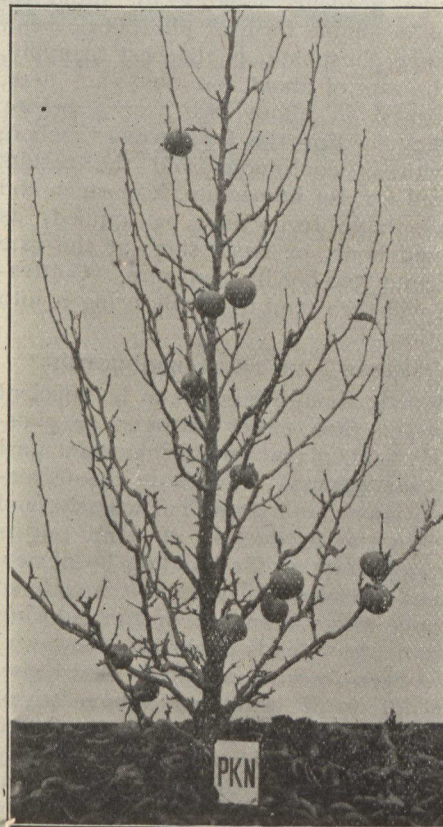
Three substances particularly are needed for the growth of all plants: Nitrogen, phosphoric acid and potash. A man who does not understand the nature of these three substances, or the individual effect each one of them has on the growth of the plant, cannot apply fertilizers successfully.

The first essential is to distinguish between the method of fertilizing used by the market-gardener and that of the fruit-grower. The market-gardener usually wants to raise a leaf crop, as for instance lettuce, radish, cabbage, cauliflower and so forth, or a tuber crop, as potatoes, carrots, beets. The fruit-grower, on the other hand, is continually aiming towards the production of fruit, particularly fruit of early maturity. He



Pear Tree

No fertilizer applied.



Pear Tree

Fertilizer: Potash, Phosphoric Acid, Nitrogen.