

GRAFTING.

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WHILE grafting in itself is a very simple operation, so far at least as its mechanical performance is concerned, yet there are principles underlying it that cannot be ignored with impunity, and in carrying it out a number of factors have to be understood if the operation is to be always successful. The work must also be accurately done. Neatness of the work and accuracy of the cuts both exercise great influence on the operation. The first requirement is to understand the principles. When these are grasped the operator knows exactly what is required; he knows when all conditions are right and exactly the kind of material to work on. A person may be able to put on a number of scions and get a large percentage of takes. But if one graft can be put on right, why not all? Simply because of the lack of accurate knowledge, or insufficient skill, rendering the work more or less speculative. Failures may occur from using improper wood as scions, from bad stocks, from bad workmanship, or doing the work too early or too late, or with scions not properly kept.

THE SCION.

It is generally recognized that the scion should be in a more backward state of growth than the stock on which it is to be grafted. The reason why should also be understood, and then carelessness in this matter would be less frequent. A scion is really a tree without roots. It has no means of supplying itself with food; that is the function of the stock. It should be clearly realized that as leaves come before roots, so top growth must be made by the scion before a union can be formed. The conditions required are that the stock shall be pumping up sap, which the scion does not immediately require, as the top growth has not begun. The junction of stock and scion being sealed up, the sap from the stock keeps the base of the scion fresh while the buds are breaking. As soon as the buds begin to push, their reciprocal action between scion and stock causes a union. Now, presuming that the scion were in a more forward state, with buds breaking when put on, it would require immediate sustenance; and as that could not be obtained, on account of there being as yet