GRAFTING

Grafting is a technique by which two parts of different plants are joined together (in particular the cambium layers) in such a way that they will heal, seal and continue to grow as one plant. The cambium layer is a layer of live tissue right under the bark. Good tight contact is essential.

It must be remembered that only apple scions can be grafted onto apple understock or onto existing apple trees. Similarly, cherry, pear, beech or birch can only be grafted to the same kind of understock or trees

In the lower mainland, grafting should be done in January or February. For the Okanagan, in March; while in the far north, not until April.

The first requirement for proper grafting is a good sharp knife. A surgeon's scalpel or a razor-type knife would work well. Be careful not to cut your fingers.

A scion is a short length of vigorous stem that has at least two plump, healthy buds. Select the variety you wish to graft onto an existing tree or root stock. Scions may be available from a local nursery or from a neighbour or orchardist. The thickness of a scion should be the diameter of a pencil.

There are many good grafting methods but the most common and simplest are the "whip-and-tongue" and the "apical-wedge."

GRAFTING/WHIP AND TONGUE

Recommended method for fruit grafting.



1. Select a plant that will be suitable as rootstock. Plant it outdoors. Label and leave for a growing season.



_6. Lift the scions from the ground. Make a top cut just above a bud about four buds from the base.



2. Select a plant that is suitable as scion material. Cut off some vigorous hardwood stems for scions.



7. Make a 1 1/2 in. basal cut at the same angle as the rootstock cut. End it just below the bottom bud.



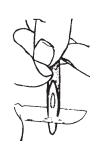
3. Bundle these scions together Heel them into the ground in a well drained, cool place. Label.



8. Make a shallow, single 1/2 in. slice into the rootstock from one-third down the sloping cut.



4. Trim the bottom 12-15 in . on the rootstock of all branches just before the leaf buds break.



9. Make a shallow, single 1/2 in. slice into the scion from one-third up the scion sloping cut.

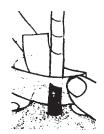


5. Cut back the rootstock to where the scion is to be grafted. Make a 1/2 in. sloping cut at the top.



10. Slip the scion into the rootstock so they interlock.

11. Bind the join firmly with clear polyethylene tape. Dab the top of the scion with tree paint. Label.



12. Remove the polyethylene tape once the cut surfaces start callusing. Cut off any rootstock growth.



APICAL-WEDGE

Recommended method for trees such as beech, flowering cherry, crab apple, horse chestnut and wisteria.



1. Collect some stems of the previous season's growth in midwinter. Heel these scions into the ground. Label.



2. Select a suitable rootstock in late winter/early spring. Lift and wash it.
Cut the top horizontally.



3. Make a single 1 1/4 in. cut vertically down the middle of the rootstock.



4. Lift the scions.

Make a sloping top cut just above a bud and a horizontal one about 6 in. below.



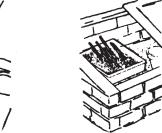
5. Make a 11/2 in. cut toward the middle of the scion base. Repeat on the other side.



6. Push the scion into the rootstock cut. Leave part of the scion cut surface exposed.



7. Bind the joined area with clear polyethylene tape. Seal the top of the scion with a suitable tree paint.



8. Heel the grafted parts into a box filled with peat and grit. Label and place the box in a protected area.



9. Remove the polyethylene tape once the cut surfaces start callusing. Pot up or plant out.

To insure proper contact is maintained, wrap the "union" with either a rubber band, budding, masking or freezer tape. After wrapping the "union", paint over the tape or rubber with tree paint or tree emulsion to prevent dirt or moisture from getting into the graft. Also, dab a little tree emulsion on the exposed end of the scion in order to seal it.

Always graft close to a main branch. A graft too far out on a limb would not allow for the new stalk to grow.

To insure greater success, first practice grafting with pieces of wood discarded after pruning. With a little practice you will learn just how to make the right cuts so that pieces will fit together to make a lasting union.

