

Now this is how budding is done: Make a vertical incision on the rootstock about 2 to 3 centimeter long and as deep at the dark. Cross cut above the vertical cut to form s T-shaped incision.

The cross cut can also be made below the vertical incision (inverted T). After you have made the T or inverted T on the rootstock, slice off smoothly a shield of bud including a thin layer of the wood from the budstick. Insert the shield into the slit on the rootstock until it is even with the cross cut, then tie with a plastic twine or budding tape. You can start tying either below or above the bud.

The union of the bud and the stem of the stock takes about two weeks after the budding operation. After this period, remove the wrapping material. If the bud is still green, cut the notch deeper. Cut a notch above the bud union to force the dormant bud to grow. As the bud grows, cut the notch deeper. Cut the tip of the seedlings to prevent the stock from growing and to promote growth of the inserted bud.

When the bud is already 10 inches high, cut the top of the stock just above the bud union. Plain the wound with tar or paraffin or any similar material to protect it from decay or other maladies. Sprouts that growth below the buds should be cut.

CUTTINGS

Citrus can be also propagated by cuttings. Choose young stems from prolific and healthy trees. Cut them in the nodes with a length of about 7 to 10 centimeters. Cut their leaves in half to prevent much evaporation of water, but do not strip off all the leaves. Plants get their "food" from the remaining leaves before they can make new tissues, which will be their source of food later on.

To speed up root formation, you can treat the tip of the cuttings with rootone or A.N.A>A You can buy these chemicals from agriculture stores in your area.

Plant your cuttings in a box filled with ordinary sand. You can adjust the size of the box according to the cutting you

need. Sand will only serve as a rooting medium. Water your cuttings three times a day and cover the box with a transparent plastic sheet. This will conserve and maintain a humid and warm temperature suitable for root development.

When your cuttings have already developed a pair of about 2 inches roots (this will take about two months), transplant them in plastic bags filled with fertile soil. They should remain in the bags for another month under partial shade before transplanting them in the field.

MARCOTTING

Marcotting is similar to, but easier and more successful than, cuttings. The first thing to do is to select a woody branch thicker than a lead pencil. Make a cut around the branch with a sharp knife and remove a strip of bark twice the thickness of the branch. Carefully clean the exposed strip removing the cambium layers. Make a ball of moist clay soil or moss and place it around the expose cut. Wrap surely with plastic and tie both ends.

When roots are visible through the plastic (one to two months), cut the new marcot (seedling) from the mother tree. Remove about one-half to two-thirds of the leaves and prune for a balance shape. Remove the plastic and transplant in a prepared seedling bag, taking care not to damage the young roots while handling. Water thoroughly. Allow the seedlings to harden in the shade for three to four weeks or until new leaves start to grow.

TRANSPLANTING

When transplant citrus plants (be it budded, cutting, or marcot), be sure to leave a ball of soil attached to the planting materials. Dig holes about one foot in diameter and 1 foot deep, depending upon the size and height of the planting materials.

Gently set each plant in the hole then water thoroughly and cover the filled hole with cut grass or rice straw to keep the newly transplanted plants from drying.

EASY METHODS OF PROPAGATING CITRUS



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EASY METHODS OF PROPAGATING CITRUS

CITRUS originate in tropical and subtropical southeast regions of the world. The fruits are notable for their fragrance, partly due to flavanoids and limonoids contained and rind, and most are juice-laden. The juice contains a high quality of citric acid, giving them their characteristic sharp flavor. They are also good sources of vitamin C.

Lemons and lime are also as garnishes or in cooked dishes. Their juice is used as an ingredient in a variety of dishes; it is commonly found in salad dressings and squeezed over cooked meat or vegetables.

The fruit pulp can vary from sweet and tart to extremely sour. Marmalade, condiment derived from cooked orange and lemon, can be especially bitter but is usually sweetened to cut bitterness and to produce a jam-like result. Lemon or lime is commonly used as a garnish water, soft drinks, or cocktails. Citrus juices, rinds, or slices are used in a variety of mixed drinks.

Citrus juice has medical uses. For instance, lemon juice is used to relieve the pain of bee stings. Oranges were historically used for their high content of vitamin C, Which prevents scurvy. The peel of fruits is sometimes used as facial cleanser. Before the development of fermentation-based processes, lemons were the primary commercial source of citric acid.

In the Philippines, the most common citrus fruits are mandarin, pummelo, sweet orange, calamansi, and lime. The Bureau of Agriculture Statistics has identified citrus as the fourth major export of the country, after banana, mango and pineapple.

Unfortunately, not too many Filipino farmers are planting it. "Yet citrus propagation does not differ greatly from the general techniques used in the propagation of other three crops," says Roy C Alimoane, director of the Mindanao

Baptist Rural Life Center (MBRLC) Foundation, Inc. in Kinuskusan, Bansalan, Davao del Sur. "However, certain details are unique and apply only the Citrus."

The three most common methods are budding, cutting, and marcotting. "Budding is the most commonly used method of propagating citrus," Alimoane adds. Budded trees start bearing fruit early."

The MBRLC shares the following information on propagating citrus by means of budding, using rootstock grown from seeds:

SEED EXTRACTION. Select seed (from which rootstock will be grown) from fully mature, vigorous, and healthy trees. Extract seeds by making a shallow cut through the rind around the center of the fruit and twisting the two halves of the fruit apart. Squeeze the seeds onto a sieve and wash them free from the pulp. Small, undeveloped seeds that float while washing should be discarded. Afterwards, spread the seeds thinly on absorbent material and allow them to air-dry.

SEED TREATMENT. After drying, treat the seed with fungicides, by mixing the powder with the seed thoroughly until each seed uniformly coated. Sow treated seeds immediately. If they are to be stored, pack them in an air-tight container wrapped in a plastic bag and store in a cool place, preferably under refrigerated condition.

SEEDBED PREPARATION. The seedbed should contain sand or sandy soil which should be treated with a soil fumigant before sowing the seeds. This is done by saturating the seedbed with chemical solution.

SOWING SEEDS. You can start sowing the seeds three or more days after fumigation. Sow the seeds 2 centimeters apart at a depth of 1 centimeter. Treat the border of the seedbed with an insecticide to prevent the entry of ants. The seed will germinate in three to four weeks after sowing. (The seedling could be used as planting material, but they do not recommended because they do not produce true-to-type trees.)

CARE OF SEEDLINGS. When seedlings are already 4 to 5 inches high top-dress the seedbed with a liberal amount of urea (46-0-0) to hasten the seedlings 'growth. Weed regularly and cultivate the soil shallowly. When the seedlings have attained a stem diameter of one-fourth inch (this is usually one to two years after sowing), shaded area. But first, place the plants in pails or similar containers with their roots in water. Then, place them under a shade.

Separate and discard the diseased and deform plants. Cut the roots of the selected plants to about 8 inches, then remove one-third of the top. Bring the seedlings to a nursery with their roots in water. Water the seedbed first before transferring the seedlings. Then when a sharp spade, dig holes 8 to 10 inches deep below the surface.

MANAGING THE NURSERY. You can apply complete fertilizer (14-14-14) if the soil is not fertile. Plant the seedlings at 3.5 to 4 feet between rows and 12 to 15 inches apart within the rows. If the nursery is not too sandy, cultivate the soil using a hoe and then plant the seedlings in the clean vertical surface. Water the plants every 10 to 15 days. You can also apply urea to supplement the nutrient requirements of the plants. When the seedlings are about three-eighth to one-half inch in diameter and are already 4 to 8 inches above the ground, they are ready for budding.

BUDDING

Before budding, the seedlings are pruned to a single bare trunk up to a height of 6 to 10 inches. The buds to be used for propagation should be taken only from selected trees of the desired variety that are vigorous and bear only good fruit typical of the variety.

Mandarin and calamansi, can be used a rootstock for mandarin, sweet orange. And pomelo. For lime, lemon and calamansi, lemon can be used as rootstock. And for sweet orange and mandarin, sweet orange can be used as rootstock.