



ROOTS OF PEACE

Multiplication of Grapevines in Nurseries

**Jean-Pierre Detry, PhD, Lead Extension Advisor, Roots of Peace
ROP GRAPE Project funded by USAID RAMP Program administered by Chemonics International**

In order to plant new vineyards or to replace missing vines in a vineyard, new saplings are needed. The saplings may come from layering, which is traditional way of multiplication in Shomali – but this takes a very long time. Sometimes over 2 or 3 years. Or you can source from cuttings.

Cuttings should not be brought into place in vineyards before being rooted, for the survival percentage of rooting in vineyards without irrigation and care is very low. Doing this takes too much work and several years to replace missing vines. The farmers are wasting many cuttings.

The proposed method of rooted cutting production in nurseries allow a rooting and growing percentage of about 90% or more within one year and transplantation into place during the following spring. So a cutting grown in March 2005 in a nursery will be ready to plant in March 2006.

The following leaflet is a simple step-by-step demonstration on how to make rooted cuttings nurseries. Larger nurseries will require more sophisticated information.



While pruning the vine, collect the cuttings from one-year old wood only.

To keep the cutting fresh while finishing pruning of the vineyard, put them in soil as follows:



Gather the cuttings in bundles of 100 pieces.



Dig a trench in the soil 2 meters x 1 meter deep.



Place the bundles of cutting into the trench.



Cover them completely with dirt.



Keep the cuttings in the trenches wet. If the weather is very dry, pour water in the trench just after placing the cuttings in the trench.



Do not put cuttings in the water for a long time. Try to keep them moist to avoid desiccation. After a while the cuttings will sprout using all reserve from the wood for bud-sprouting and inhibiting roots formation leading to die-back of the cuttings.



Once pruning is finished and the farmer wants to proceed with the cuttings for planting in the nursery, take the cutting out of the “jauge” and proceed to dressing.



Dressing of cutting for plantation in nursery



Cut with pruning shears the cutting to a length not exceeding 35 cm.



Using shears cut the top of the cutting at a distance of 5 cm above upper bud with a diagonal cut.



Diagonal upper cut of the cuttings.



Cut the bottom of the cutting perpendicular right at the base of the lower bud.



With a knife take away the basal buds of the cutting (blinding action) and keep the 2 upper buds intact.



Place the cutting in a rooting solution for 24 hours (1 day and 1 night)

Preparation of the rooting solution:



Stamp a fistful of barley with a hammer or a stone.



Place this amount of barley in a 15 litre bucket with water and let it stew for one night with the cuttings. The cuttings should be placed with the buds and diagonal cut pointing up.



In case of many cuttings to be dipped in the barley solution, make trench, lay a plastic foil in it and fill up with the water-barley solution.

Then put the bottom of the cutting in the solution.

Nursery set-up



With a rope orientate the ridge for the nursery.



For the orientation of the rows:
the length is to be in the direction of the
main winds.



Erect ridges of 50 cm width along usual
habits.



Once ridges are erected, use ropes to mark the position of the 2 rows of the nursery. The rows should be at least one stretched hand apart.



Insert the cuttings along the rope, placing them deeply in the ridges. Keep the buds outside of the dirt.



The distance between two cuttings along the rope should be equal to the width of your hand.

No other nursery care is now needed before sprouting, except irrigation.