

POMEGRANATE PROPAGATION

**Denise Rodriguez M.S.
CEA-Horticulture**

**Jaime Iglesias Ph.D.
CEA-Agriculture and Natural Resources**

El Paso County

PROPAGATION

Trees can be propagated by;

SEED (Sexual) might not come as a parent fruit

HARDWOOD (Vegetative-cloned- same as parent plant)

SOFTWOOD (Vegetative – cloned- same as a parent plant)

HARDWOOD CUTTINGS

Trees are most commonly propagated using winter hardwood cuttings (dormant or not), an ex-plant piece 6-12 inches (15-30 cm) in length and pencil size or larger in diameter.

Dormant cuttings should be taken in February or March (if Dormant hardwood).

Non-Dormant wood any other time of the year, leaves has to be removed.

.

CUTTINGS

Field Wood Selection.-

Best last season growth.

Make a distinct cut to mark bottom (45 degree angle) and top (90 degree angle).

Keep wood out of the sunlight (avoid dehydration)

If several days before using it. Seal ends with shellac or wax .

Cutting (6-12 inches length).

WORK IN SHADE COOL AREA.

Select wood that is free of dormant insects (eggs, scales, pupae of insects.).

Select wood that is free of mechanical damage.

Select wood that is straight, no hard bends.

Select wood that is not diseased or has loose bark.

Cutting Preparation;

Disinfect with mild soap or (Physan).

Base portion.- make a 45 degree cut, to expose as much as possible cambium tissue (root formation site).

Top portion.- Make a cut perpendicular to the axis line.

Liquid Hormone Treatment.-

Immerse in rooting hormone solution

Time and concentration of the rooting hormone will depend in the how woody is the cutting, follow manufacturer's label recommendation.

Powered Hormone Treatment.

Concentration of the rooting hormone is set by manufacturer and you only have to immerse the cutting in the powdered hormone and tap to remove the excess powder.

ROOTING

Induce rooting by hormone treatment or time.

Rooting hormones; Auxin group.- IAA Indole Acetic Acid
IBA Indole Butiric
NAA Naphtalen Acetic Acid.

Powder or Liquid

*Follow manufacturer label



IBA + NAA



IBA



IAA + NAA

GROWING MEDIA.

Use any growing media that has a good **drainage**.

Wet the growing media before placing the cuttings in it. This will allow to evaluate how much water is present. Allow time for the peat moss and Vermiculite to absorb the water if no wetting agent is used in the media. Press between your hand the media to eliminate the excess of water.

Fill up the containers.- Cones, Pots, plastic bags etc.

Container Propagation

Once the cuttings have been treated with the rooting hormone. Insert the cutting into the rooting media $\frac{2}{3}$ to $\frac{3}{4}$ of the length of the cutting.

Top of Cutting should not be covered with media and 2-3 buds should be exposed.

In Field Propagation

The cuttings are planted vertically in open ground 6 to 12 inches apart in nursery rows, with about 2 to 3 inches of the top exposed (1-2 buds exposed). It is not necessary to callus the cutting to insure rooting.



Cutting done in January 28th, 2010
Bud break out in February 9th, 2010
Greenhouse conditions.

**PROPAGATION TRAY COVERED WITH
PLASTIC TO AVOID DEHYDRATION
AND OVERWATERING**



Cutting done in February 13th, 2010
Cuttings budded out in March 17th, 2010



ROOTED POMEGRANATE CUTTING

Cutting done in January 28th, 2010

Cutting ready to transplant in field in April 12th, 2010.

Grown under greenhouse conditions.



“WONDERFUL” POMEGRANATE CULTIVAR
ONE YEAR OLD PLANT
BARE ROOT TRANSPLANT
TRANSPLANT DONE IN APRIL 10TH, 2010

POMEGRANATE BUDDING AND GROWTH

Pomegranate cuttings should be allowed to grow in the container until a good strong root system is formed.

Criteria. If you can not pull the plant from the cone, needs more time for root formation and mass.

HARDENING AND CONDITIONING OF THE PLANT

Once the greenhouse phase is done. Pomegranate plant needs a hardening (conditioning) under a shade or shelter house (open air) for at least 7 days, before the plants are transplanted into the soil.

FIELD GROWN CUTTINGS

The plant is allowed to grow for one season in the nursery and then transplanted bare root to the orchard the next winter or early spring.

Seed-propagated plants do not grow true-to-type, but seeds will germinate in 45-60 days.

Layering is also successful but more labor-intensive.

QUESTIONS

Denise Rodriguez M.S. CEA-Horticulture
drodriguez@ag.tamu.edu

Jaime Iglesias CEA-Agriculture-Natural Resources
j-iglesias@tamu.edu

Texas A&M Agrilife Extension Service
9521 Socorro Road Suite A-2
El Paso, TX 79927
(915) 860 2515