

# **POMEGRANATE PROPAGATION**

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# 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.

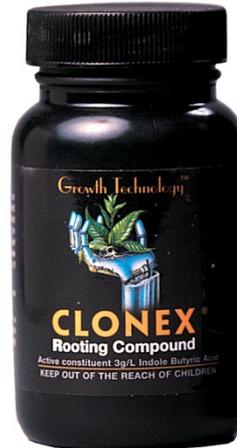
Rooting hormones; Auxin group.- IAA Indole Acetic Acid  
IBA Indole Butiric  
NAA Naphtalen Acetic Acid.

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 28<sup>th</sup>, 2010  
Bud break out in February 9<sup>th</sup>, 2010  
Greenhouse conditions.

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



Cutting done in February 13<sup>th</sup>, 2010  
Cuttings budded out in March 17<sup>th</sup>, 2010



## ROOTED POMEGRANATE CUTTING

Cutting done in January 28<sup>th</sup>, 2010

Cutting ready to transplant in field in  
April 12<sup>th</sup>, 2010.

Grown under greenhouse conditions.



“WONDERFUL” POMEGRANATE CULTIVAR  
ONE YEAR OLD PLANT  
BARE ROOT TRANSPLANT  
TRANSPLANT DONE IN APRIL 10<sup>TH</sup>, 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

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