AgriLIFE EXTENSION
Texas A&M System
Improving Lives. Improving Texas.

General Fruit Planting Information For Galveston Country

AgriLIFE EXTENSION
Texas A&M System
Improving Lives. Improving Texas.

Planting Your Bare Root Tree

Late winter till early March is an excellent to be planting fruit trees, vines, and bushes. It's a good time because it gives the plants a chance to get roots established before the warm weather arrives. It's also an ideal time to plant bare root fruit trees if you follow a few important rules.

- **Keep the roots moist until the tree is planted**
- **Store in the shade**
- **Plant in a sunny spot**
- **Follow the "Planting a Potted Tree" (GC-322 on the reverse side)**
- **Do not apply fertilizer**
- **Never cover the 'graft' with soil**
- **Water the tree**
- **For peaches, plums, certain other fruit trees:**
  Remove top half of tree to balance the top with the roots and produce wider spread and easier harvest

If you purchased a bare root tree today, plant it today. Since it's important to keep the roots moist, your best bet is to plant it today. Choose a sunny location and following the handout "Planting a Tree. Pack it in wet sawdust, moist sand, wet paper towels or newspaper while you are preparing the hole.

If you purchased a bare root tree today, and cannot plant it till tomorrow, 'heel' in the tree roots. 'Heeling in' means to lay the tree down in a shady area and bury the roots in soil till it can be planted – tomorrow. You may dig a temporary hole in a shady spot, put soil over the roots to keep them moist, or even in a bucket with a little soil in it. That will hold them until you can get them planted.

You have automatically selected a variety that's well-adapted to this area by making your purchase at the Galveston County Master Gardener Plant Sale. If you are buying fruit trees in the future, be sure to contact the Galveston County Extension Office for a list of varieties that do well in our climate or search for "Gardening With Skip" http://aggie-horticulture.tamu.edu/travis/gardeningwithskip/index.html

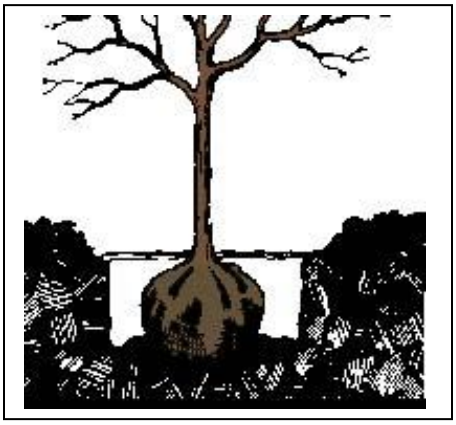
By Sandra Devall, Galveston County Master Gardener

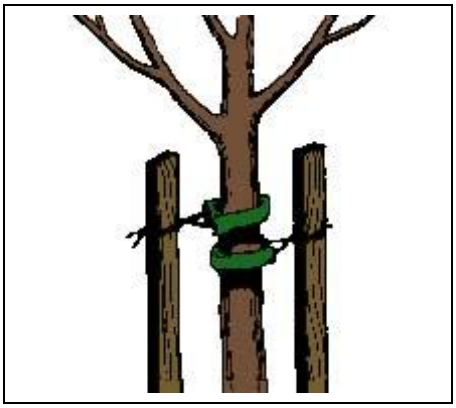
AgriLIFE EXTENSION
Texas A&M System
Improving Lives. Improving Texas.

Planting Your Potted Tree

Steps for Planting

1. Select a site that is in full sun.
2. Dig the hole twice as wide as the root ball (container), and no deeper than the height of the root ball.
3. The soil that you dig out of the hole is what you use to backfill around the root ball.
4. No soil amendments are recommended when planting
5. Therefore, no compost, peat moss, or shredded pine bark should be added to the backfill.





After planting the tree, build a 4-inch tall berm around the edge of the hole. Fill the berm with a mulch *(i.e. shredded bark or compost).* The mulch and berm make it easier to water the tree and reduce weed competition.

For most trees, staking is not recommended; however, if the tree trunk is not sturdy enough, use two stakes, one on either side of the tree, and give the trunk support for the first year only. Below are diagrams of a typical tree planting.

Right after planting, water the tree in by filling the bermed basin with water. This will settle the existing soil around the root ball. For the first week after planting, lightly water the tree every day (about one pint to one quart of water each day). The second week, water every other day with about one to two quarts of water. During week three, water every third day with two to three quarts of water. Week four and beyond, water once a week if needed. The goal is to wean the tree slowly off of supplemental irrigation, and produce a root system large enough for the tree to thrive on natural rainfall.

REMEMBER: These are just guidelines. Use your index finger to check the soil moisture under the mulch. If the soil is cool to the touch, do not water. If it is warm and dry, then water. More plants are killed by over-watering than by under-watering.

From an article byDouglas F. Welch, Professor and Extension Horticulturist

Recommended Planting Distances, Time to Fruit, Pollination Requirements And Pruning Systems for Texas Fruit Crops

FRUIT	SPACING BETWEEN PLANTS	YEARS TO FIRST FRUIT	POLLINATION REQUIREMENTS	PRUNING SYSTEMS
Apples				
Seedlings	25 ft.	5	Cross[2]	Central leader
MM111 RS[1]	20 ft.	4	Cross	
MM106 RS[1]	14 ft.	4	Cross	
M9 RS[1]	10 ft.	3	Cross	Trellis
Apricots	18 ft.	4	Self[3]	Open center
Blackberries	3 ft.	1	Self	Remove old canes and top new canes
Blueberries	6 ft.	1-2	Cross	Thin center
Citrus	20-25 ft.	2-3	Most self	Maintenance
Figs	12 ft.	2	Self	Bush or central leader
Grapes, bunch	4-8 ft.	2-3	Self	Cane or spur
Grapes, muscadine	10-20 ft.	2-3	Self & cross	Spur
Peaches	18 ft.	3	Self	Open center
Pears	25 ft.	5	Cross	Central leader
Pecans	40 ft.	4-7	Cross	Central leader
Plums	18 ft.	3	Cross	Open center
Strawberries	1 ft.	3 months	Self	Annual planting

[1]RS=Rootstock
[2]Cross: At least two different varieties needed for fruiting
[3]Self: Self-fruitful

Propagation Methods for Texas Fruits & Nuts

	METHOD[1]		
	BUDDING, GRAFTING	CUTTING, LAYERING, SUCKERING	SEEDING
Temperate Fruits			
Apples	Whip graft, bark graft, chip bud, **T-bud**, bark graft		
Apricots	**T-bud**, bark graft		
Blackberries		**Root cutting**, softwood cutting, simple layering, suckers	
Blueberries		**Softwood cutting**, suckers	
Figs		**Hardwood cutting**, air layering	
Grapes, bunch	Whip graft, T-bud, chip bud, crown cleft, bark graft	Hardwood cutting	
Grapes, muscadine		**Softwood cutting**, simple layering, mound layering	
Jujubes	Whip graft	**Softwood cutting**, root sprouts	
Nectarines	**T-bud**, bark graft		Common for rootstocks[4]
Peaches	**T-bud**, bark graft		Common for rootstocks[4]
Pears	**T-bud**, whip graft, bark graft		
Pecans	**Patch bud**, whip graft, inlay bark graft[3], four-flap graft		Common for rootstocks
Persimmons	**Chip bud**, whip graft, bark graft[2]		
Plums	Inlay bark, **T-bud**		
Pomegranates		**Hardwood** and softwood **cuttings**, suckers	
Raspberries		**Softwood cutting**, simple layering, suckers	
Walnuts	**Patch bud**, whip graft, bark graft[3], **four-flap graft**		
Subtropical Fruits			
Avocados	Chip bud, bark graft[3], side veneer graft, **cleft (tip) graft**		Common for rootstocks
Bananas		**Suckers**	
Citrus	**T-bud**	Hardwood cutting, semi-hardwood cutting, air layering	Common for rootstocks
Mangos	Chip bud, side-veneer graft, **cleft (tip) graft**		Common for rootstocks
Papayas		Softwood cutting	Common for rootstocks

[1]Preferred or most common method is shown in boldface.
[2]Primarily used in top-working, established trees.
[3]Also used in top-working, established trees.
[4]Remove seeds from pit.

AgriLIFE EXTENSION
Texas A&M System
Improving Lives. Improving Texas.

Collecting and Storing Graftwood

by George Ray McEachern
Extension Horticulturist
Texas Agricultural Extension Service
Texas A&M University

Successful in-lay and four-flap grafting of pecans is dependent on the availability of suitable graftwood of the desired variety. The wood must be collected in late winter during the dormant season and properly stored until spring grafting time.

Collection

Collect the graftwood in late February to early March while the tree is still dormant. If the buds have begun to swell and grow, the wood is inferior and cannot be used successfully.

Select parent trees of the desired variety that are free of obscure scale, rosette, and disease. Young vigorous trees produce abundant, smooth and large-sized, current-season wood. Moderate-sized trees making normal growth usually have good graftwood in their uppermost limbs. Older trees can be cut back to force vigorous new growth satisfactory for graft wood.

Stick Preparation

Select straight, smooth graftwood from 1-year-old wood 1/4- to 1/2-inch diameter. Cut shoots for grafts into 6-, 12-, or 18-inch lengths to give one, two, or three graft sticks.

Figure 1 is graftwood 3/8 inch diameter collected in February for storage as 6, 12, or 18 inch sticks.

Each graft stick should contain at least three buds or nodes. Seal the end of the graft sticks with melted wax, grafting paint, or orange shellac. Only 1/4-inch of the end of each stick needs to be treated. When the seal is dry, tie the graft sticks in bundles no more than six each. Label each bundle with permanent ink on a wood or metal write-on label. The variety and year should be recorded on the label. Figure 2 is a graftwood bundle labeled and ready for packing material and storage.

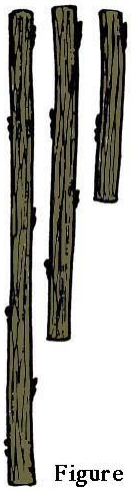


Figure 1

Figure 2

Packing Material

Paper towels, sphagnum moss, or wood shavings can be used as packing material to prevent the graft sticks form drying out. Moist paper towels that have had all of the water squeezed out can be wrapped around each bundle. A second method involves placing the graft stick bundles in slightly moist sphagnum or wood shavings. The wrapped bundles are then placed in polyethylene bags. Plastic bags do not breathe and should not be used.

Storage

Refrigerate the bags of graft stick bundles at a temperature of 30 to 45 degrees F. Do not allow graftwood to dry out during storage. Take the desired wood out of refrigeration only as needed. Wood should not be heated and recooled during the grafting season.

Grafting

Trees will be ready for in-lay or four-flap grafting in the spring as the trees begin to grow. The bark should slip during this period. Keep the graftwood in a cool, moist place while grafting.

Note: Citrus require addition steps, refer to GC-302 "Grafting Citrus Schedule"

Hypertext markup and graphics colorization by Gretchen Eagle and Dan Lineberger.
http://aggie-horticulture.tamu.edu/propagation/collect/collect.html