

# Grafting Fruit



## Trees

Special thanks to Danny Blank for the use of his slides

# A Brief History of Grafting:



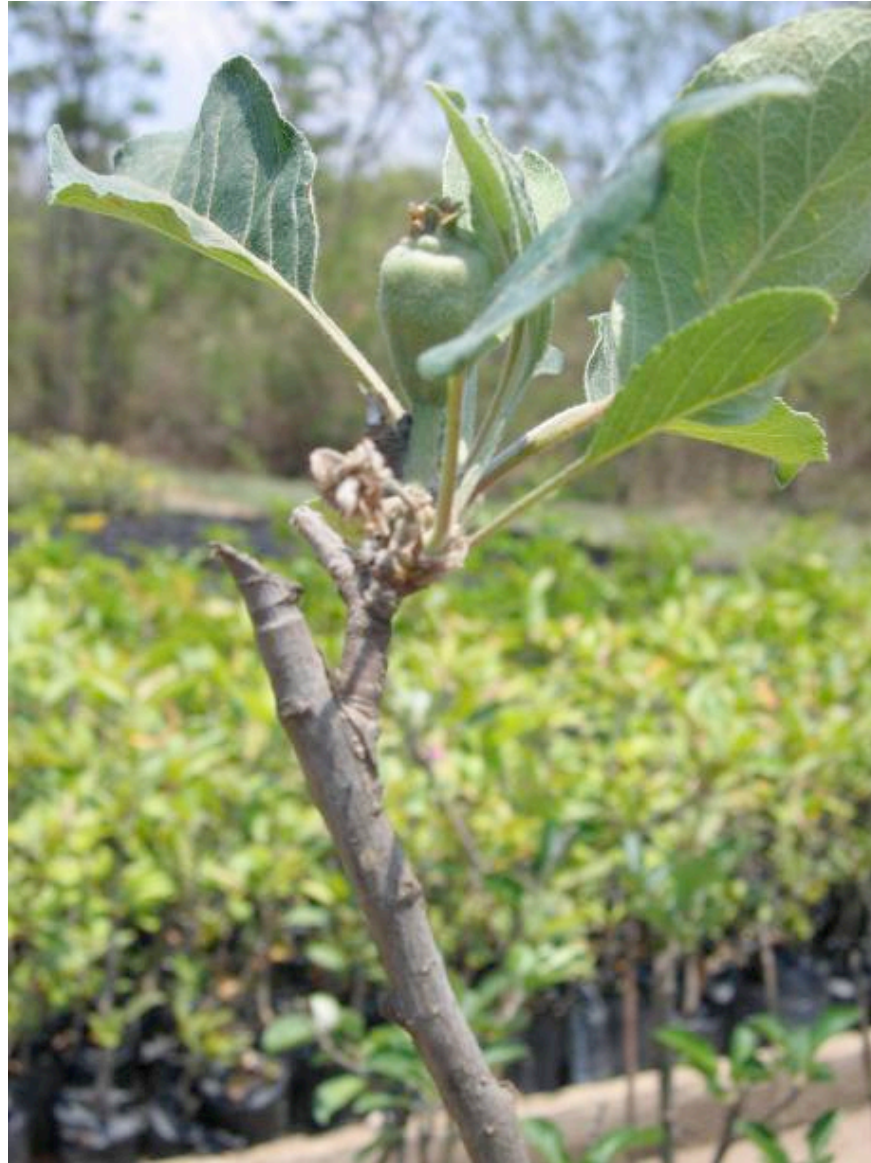
- 1) The original graft may have been seen in nature as trees rubbed branches with another tree and over time the branches healed together**
- 2) In 300 BC in Rome, records indicate that Theophrastus (a Roman) discovered that rootstocks influenced tree size and vigor**
- 3) Biblical literature describes the importance of grafted grapes in the Mediterranean and the Middle East**
- 4) The Chinese were grafting by the 4<sup>th</sup> century, using chalk, clay, straw and cow manure to keep the grafts moist**
- 5) In the 18<sup>th</sup> century grafting becomes a fine art and reaches to such an extreme that techniques need to be simplified and reduced**

# **Reasons to Graft**

# Clonal material



# Earlier fruit production



# Tree shape and height



# Selection of beneficial rootstock





# **Terms and Nomenclature**

# Grafting



Grafting is a specialized type of plant propagation wherein part of one plant (the scion) is inserted into another (the rootstock) so that they unite and grow as a single plant.

[edis.ifas.ufl.edu/HS123](https://edis.ifas.ufl.edu/HS123)

# Grafting vs. Budding



**Grafting...** multiple buds on budwood



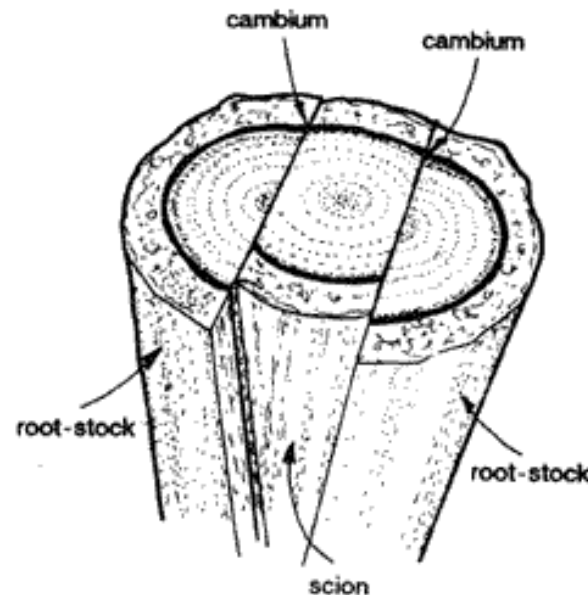
**Budding...** single bud per budwood

**Scion:** The part of the tree that is grafted or budded to rootstock. In other words, it is the top part of a graft.

**Budwood:** a short piece of plant material used in grafting/ budding.

**Rootstock:** the lower portion of a grafted plant, almost always a seedling, resulting in a tap root system (usually an advantage over vegetative root systems).

**Cambium:** the thin layer of tissue between the bark (phloem) and the sapwood (xylem) of a tree. A good match between the cambium of the rootstock and budwood is needed for a successful graft union.



# **Tools of the Trade**

Clear plastic bags

Rootstock

Clippers

Grafting Tape

Grafting Knife

Sion



# **Grafting Methods**

# Cleft graft on an Avocado







































# Side Veneer Graft on Mango

















































**The End... or is it just the beginning?**

