

# Planting and Aftercare of New Trees

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**Select a site that has elevation with respect to surrounding terrain.**



**Perhaps it involves  
the removal of an old  
orchard.**



**Remove all old trees and  
Establish a cover crop for  
one year prior to  
replanting a site.**



## Planting



- Planting with Mechanical Planters, union at a minimum of 4 - 6 inches above ground line
- Augered holes, a minimum of 6-8 inches above ground line. More settling following planting is experienced with augered holes.
- Do not fertilize until mid summer.
- Roots can and should be pruned back to fit hole / furrow

## Trees settle after planting in augered or large holes



- Expect trees to settle in soil planted the previous spring.
- Reduce settling with packing soil around roots and watering immediately after planting.
- Minimize hole size to reduce potential for settling.

## Keep Root Systems Moist and Back Fill With Soil to Remove Air Pockets



## Apples on Dwarfing Clonal Rootstocks



- If you must error in depth, make it on the side of shallow planting and not deep planting. Scion rooting, common in apples (not in stone fruit), can mean disaster later, resulting in extreme vigor for the spacing.
- Use a 2"X6" (2-4 ft long) piece of wood to help as a reference. Place the 2X6 on its edge adjacent to the planted tree (perpendicular to the row) to check its depth. The union should clearly appear above the edge of the board indicating that it is at least 5.5" high.
- The same 2X6 can be used for union height reference for stone fruit if the board is placed on its side so that the union height appears 1-2 " above ground level.

# Impact of scion rooting in apples



Golden Del / M.26

Problematic if roots become strong and dominant after 5-7 years;  
no solution to correct.



Plant apples so that the Union is 4-6 inches above soil level.



Plant stone fruit (peach, cherry, plum, apricot)  
so that the Union is 1-3 inches above soil level.

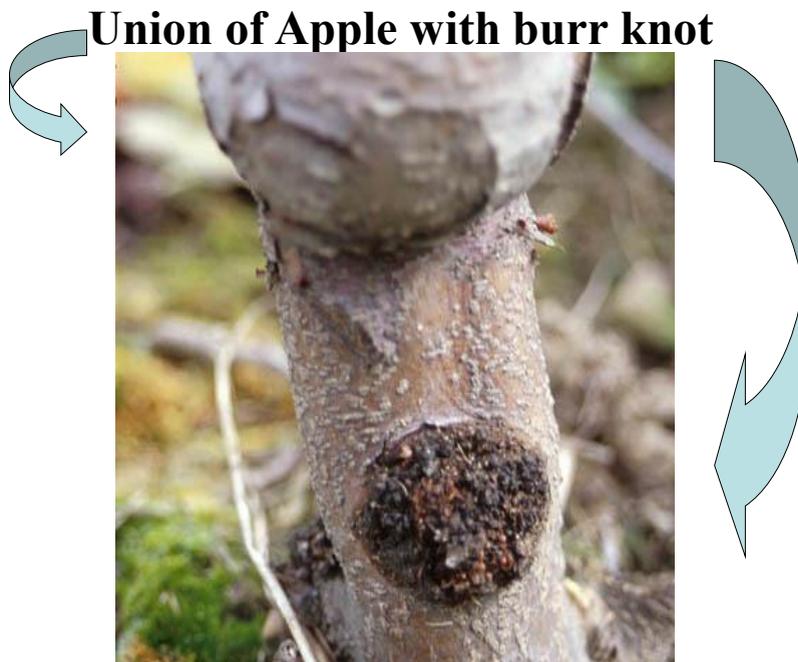
Although scion rooting is not an issue, don't plant stone fruit too deep!

- Reduce oxygen availability to new developing root system
- Encourage infection by root rotting pathogens (Phytophthora).

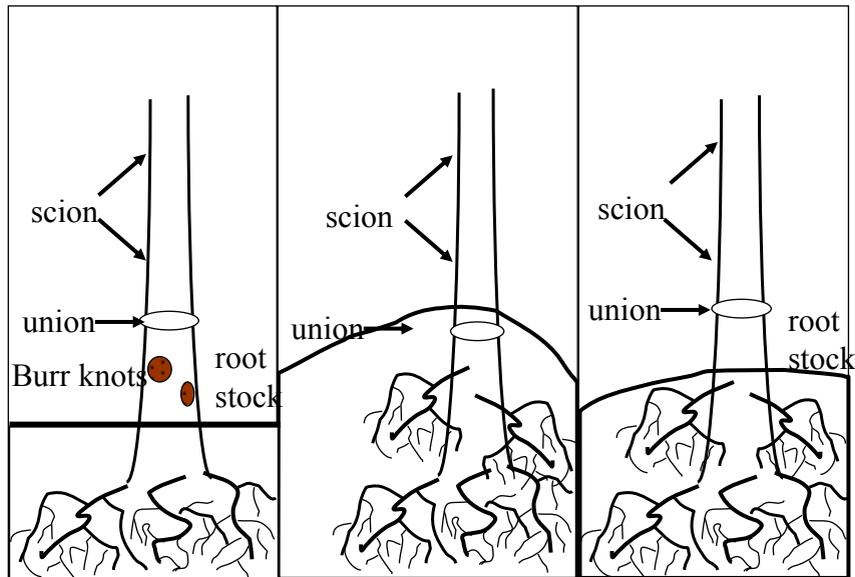


## Mounding apple trees following planting to avoid Dogwood Borer in the Midwest and Eastern US

- Primarily a problem on dwarfing clonal rootstocks such as M.9, B.9, M.26, etc.
- Follow planting recommendation to place union at 4-6 inches above soil line.
- Mound (individual trees) or form berms (using “Green Hoe”).
  - **Soil should reach 2-3 inches above union on recently planted tree trunks (within 1 month following planting).**
- Berm or mound encourages root primordia to initiate and extend into soil. Root primordia no longer present to provide haven for larvae and carbon source.
- Allow mound or berm to stay in the first 3 years. Much of berms erode or deflate after 3 years. If not, manually pull berm down below union to avoid scion rooting at the end of 3 years.



## Scion and clonal rootstock



## Soil berm (mound) on new apple planting



**Mounding Individual Trees**



**Forming a Berm soon after planting**

## Soil berm (mound) on new apple planting



Recommended based on research, applied to organic or conventional growers

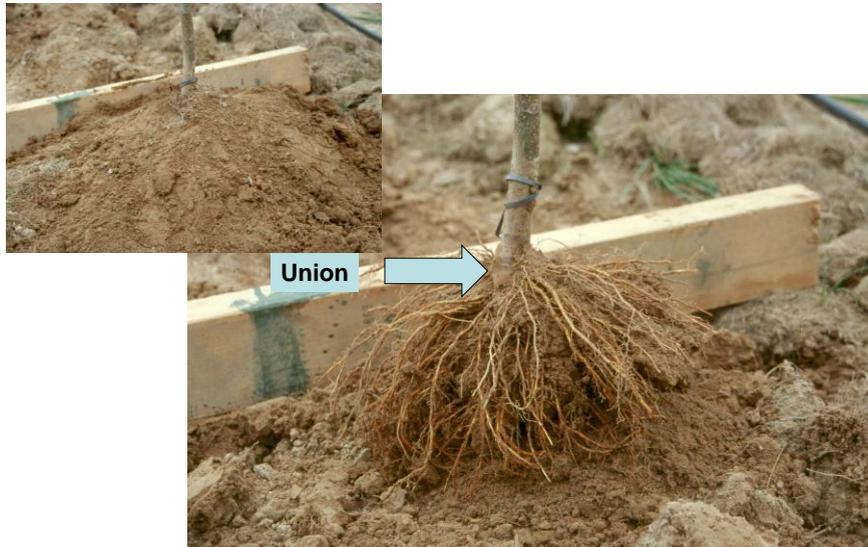
Gut, L., et.al. 2005 Soil Mounding as a Control for Dogwood Borer in Apple. HortScience 40(7): 2066-2077.

## Keys to Mounding – Scion Rooting



- Initially, ok to mound above union.
- WITH IN THE SECOND TO THIRD GROWING SEASON; REDUCE HEIGHT TO JUST BELOW UNION.
- Natural erosion will reduce height, but if not, use a hoe, rake or high pressure water to accomplish
- Scion roots that develop, while less than 1/4" to 3/8" can be exposed or cut, without fear of harm to tree.
- Wait too long (1/2" +) and scion roots have influence on vigor

## Removing soil mound after 1 growing season



## Water as soon after planting to drive air pockets from soil



Mulch as soon after planting as possible if water is not easily accessible.



Trellis Support; Many different approaches to design for HD apples.



## End Posts



## Wire and tree support





## Pruning and Training After Planting Bare-rooted Fruit Trees



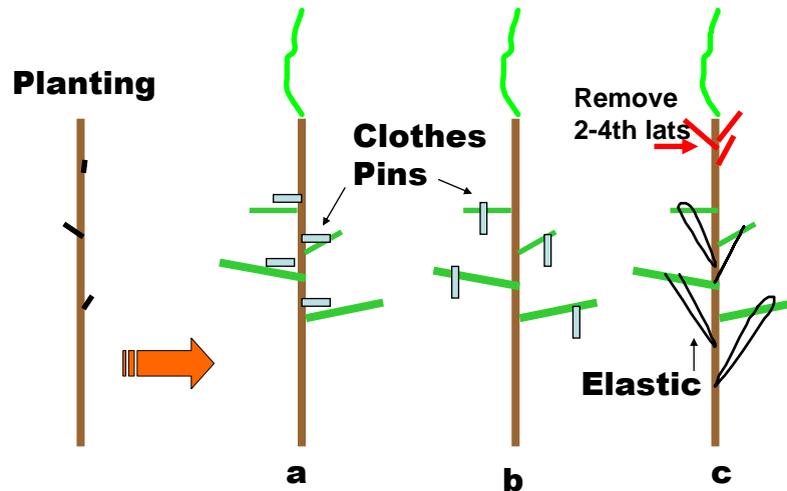


70 % or more of root system remains in the nursery at digging for bare-root trees (fall harvest).

Therefore, balance Canopy with reduced root system volume



## Whipped Tree - June/July Yr 1



## Planting / Pruning



Whipped Tree



Feathered Tree

## Planting and pruning



**Whipped tree, headed at 36"**



**Feathered tree; 3-4 feathers or branches remain, headed stem at 10 inches above top feather**

## Leave trees unpruned in Tall and Super Slender Spindle



- Only recommended where trees are planted 2-3 ft or less in distance.
- The tree to the left is a “knitboom” tree with multiple leaders.
- All leaders remain in this system.

## Training in First Year



Pinching 2-4 competing laterals



Developing The Table



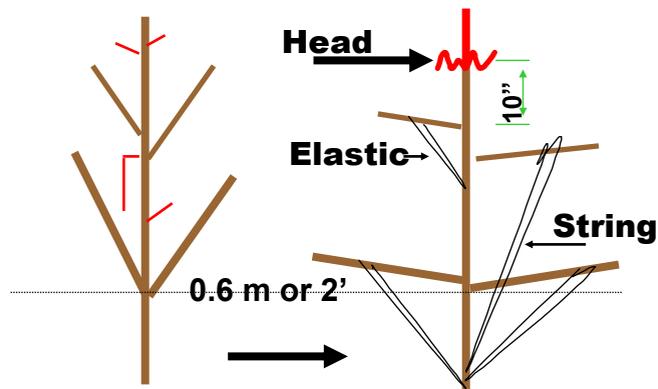
CL, VA, Slender Spindle

## Aftercare and Training



- Provide support stake and if \$, establish entire support system soon after planting
- Water regularly to keep trees from stress
- Begin training young branches

## Feathered Tree At Planting



## Spreading Young Branches



## Tree Wraps: Protect Newly Planted Tree Trunks



Plastic Tree Wraps, inexpensive, can protect against rodent injury and SW Injury but must monitor



Dogwood Borer home



Winter cold damage to M.9 NAKB 337