

1st Year Pruning

1. As little as possible, but...
2. Remove broken branches.
3. Remove main side branches (laterals) closer than 8" together.
4. Ideally the branches would be in a spiral staircase pattern every 8-18" all the way up the trunk.
5. Remove weak branches.
6. Remove branches with sharp angles to the tree. They have weak unions and will eventually break.
7. Remove "competing leaders." There should be a single, straight leader.
8. Remove water sprouts (fast growing branches shooting straight up) and suckers.

1st Year Pruning Highlights:

As little as possible...

- ◇ *Removing branches at their base (thinning) has little secondary effect*
- ◇ *Removing branch tips (heading) will promote side branching & vigorous growth*
- ◇ *Remove "competing leaders"*
- ◇ *8" minimum between branches*

Watering

1. Keep the trees well watered until established (at least the first two years).
2. Only allow the soil surface to dry to a depth of 1-2" before watering for the first 13 weeks.
3. 1" or 5 gallons of water per week minimum. You may need to water more frequently in the summer or in sandy soil, less frequently with heavier soil.
4. Fill a 5 gallon bucket in the morning and let it stand during the day and then let the water out slowly in the evening. The water will warm during the day, which is better for the tree. This also allows chlorine to evaporate.
5. Letting the water out slowly helps the water soak in, rather than run off.
6. Thoroughly water in the Fall to keep the tree from drying out over the Winter.
7. In late Fall, add up to 5" of additional mulch to help protect sensitive roots and keep water from evaporating. (Remove in late Spring)

Watering Highlights:

Keep well-watered for first 13 weeks, as much as every other day

- ◇ *Only allow to dry to a depth of 1-2" before watering*
- ◇ *Thoroughly water in the Fall*

Note: Recent studies at the U of M have shown root damage from lack of water in as little as 1 day until established. This is especially true with potted plants as the planting medium designed to drain quickly.



PLANTING AND CARE GUIDE

Tools: Shovel, Pruning Shears, Tarp/Plastic Sheet, Bucket, Gloves, Knee Pads, Sanitizer (Pine-sol) between pruning cuts to prevent the spread of disease

Supplies: Water, Mulch, Fencing, Tree Guard, Slow Release Fertilizer, Weed Inhibitor

Prep the area

1. Remove a 4-5 foot diameter area of turf (grass layer).
2. Shake out as much soil from the turf as you can onto the tarp/plastic sheet.
3. Put the vegetation in the bucket for composting/disposal.

Prepare the hole.

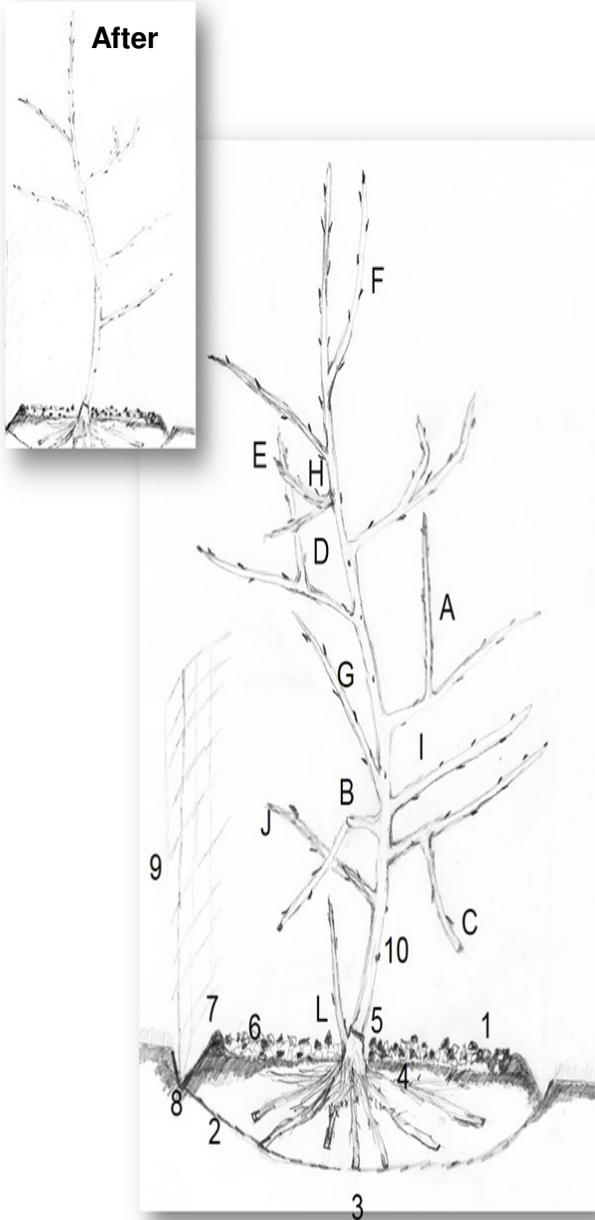
1. Place the dirt on the tarp/plastic sheet.
2. Dig hole 3-5 times as wide as the "root ball."
3. Not too deep. DO NOT disturb the soil at the bottom of the hole, the top roots should be NO MORE than 2" below the soil surface, with the bottom roots supported by the undisturbed soil to prevent settling.
4. The graft will be 2"+ above the surface. If not, raise the tree gently to 2".
5. Loosen the soil around the outside of the hole, slanting up as you go out.

PLANTING TIPS. . .

- ◆ Do not allow the roots to dry out at any time. The roots will be coated with a product that keeps them moist, but care should be taken to keep them in a cool, humid environment. The roots need oxygen to stay healthy though, so a non-sealed plastic bag, under wet straw, "healed in" to a shallow trench are all good options.
- ◆ Soak the roots in cool water for 2-24 hours, before planting.
- ◆ Do not amend the soil from the hole at planting time. Amending creates a "flower pot" effect; the roots tend to stay in the amended soil. This results in poor anchorage and low drought resistance.
- ◆ Planting too shallow is far better than planting too deep.
- ◆ Site selection: 6 hrs/day of sun minimum, well-drained soil, avoid low spots (frost). Don't crowd, stagnant air promotes disease.

Place the tree in the hole.

1. Spread the roots out as much as possible.
2. Back fill a few inches at a time, firming after each addition. Make sure the tree remains vertical and try not to damage roots.
3. Use water to settle the soil around the roots while back filling if necessary.
4. Form a "dam" around the tree to keep water from running off.



Pruning

- A. Water Sprouts
- B. Broken
- C. Downward growing
- D. Crossed/Rubbing Branches
- E. Upward growing interior
- F. Secondary Leader
- G. Narrow Branch Angle
- H. Whorls
- I. Stacked
- J. Low
- K. Weak/Spindly
- L. Suckers

Planting

1. Sod removed 3-5X root ball
(picture not to scale)
2. Loosened soil- Slanted up
3. Solid bottom- anti-settling
4. Top Roots- 2" deep max
5. Graft- 2" above min
6. 4" Mulch- Wood Chips
7. Dam- keeps water in
8. Moat- keep grass out
9. Fence
10. Tree Guard (not shown)

Add slow release fertilizer tablets.

1. Two tabs, 3" deep and 1' from the tree.

Wrap the tree trunk with a tree guard- prevents damage (critters, weed whips, etc.), and protects the bark from sun-scald.

1. The guard should be 18-24" high.
2. The guard can (probably should) be removed in early summer, but replaced again in the early Fall before freezing (& deer rubbing).

Mulch the area around the tree.

Wood chips are best as they let more air and water through to the soil and are less prone to attract critters.

1. 3-4" of wood chips mulch in a 4' diameter around the tree.
2. Leave 1-3" free of mulch near trunk.

Add weed seed inhibitor. Helps keep weed seeds from germinating.

Place a fence around the tree.

Prevents rabbit and other critter damage. When the snow gets 2 feet deep, the rabbits will eat your trees above the tree guard!!! Sprays and scents are NOT effective. Eventually the critters will get hungry enough and the trees will get eaten; probably about the time you start to get good crops of fruit.

1. Make sure the turf has been removed 2-3" outside the fence and 3-6" deep creating a "moat" to help keep the grass from growing back into the mulched area. This also helps when mowing around the tree so you don't have to trim.
2. Using landscape staples, secure the fence to the ground.
3. Leave the fence on for 3 or 4 years so the tree can get tall enough and tough enough to handle a little winter browsing of both rabbits and deer.

Thoroughly water the plant. Too much is better than not enough for the first waterings.

1. Drives out air pockets, promotes good root/soil contact, and settles the tree.

Planting Highlights:

- ◇ Remove turf
- ◇ Hole 5X wider than root ball
- ◇ Only deep enough so roots sit on undisturbed soil
- ◇ Top roots no more than 2" below surface
- ◇ Loosen soil/side walls slanting up
- ◇ Prune broken, curled or damaged roots
- ◇ Spread roots, don't allow to circle
- ◇ Back fill firming as you go
- ◇ Use water to settle
- ◇ Add fertilizer tabs 3" deep
- ◇ Wrap trunk with tree guard
- ◇ Mulch - Wood Chips are ideal
- ◇ Add weed inhibitor to mulch
- ◇ Fencing is important
- ◇ Thoroughly water. Too much is better than not enough for 1st waterings