DOÑA ANA COUNTY
COOPERATIVE EXTENSION SERVICE

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HORTICULTURAL EXTENSION AGENT
NMSU-Doña Ana County

Shrubs

Vines

Trees

Palms

Citrus

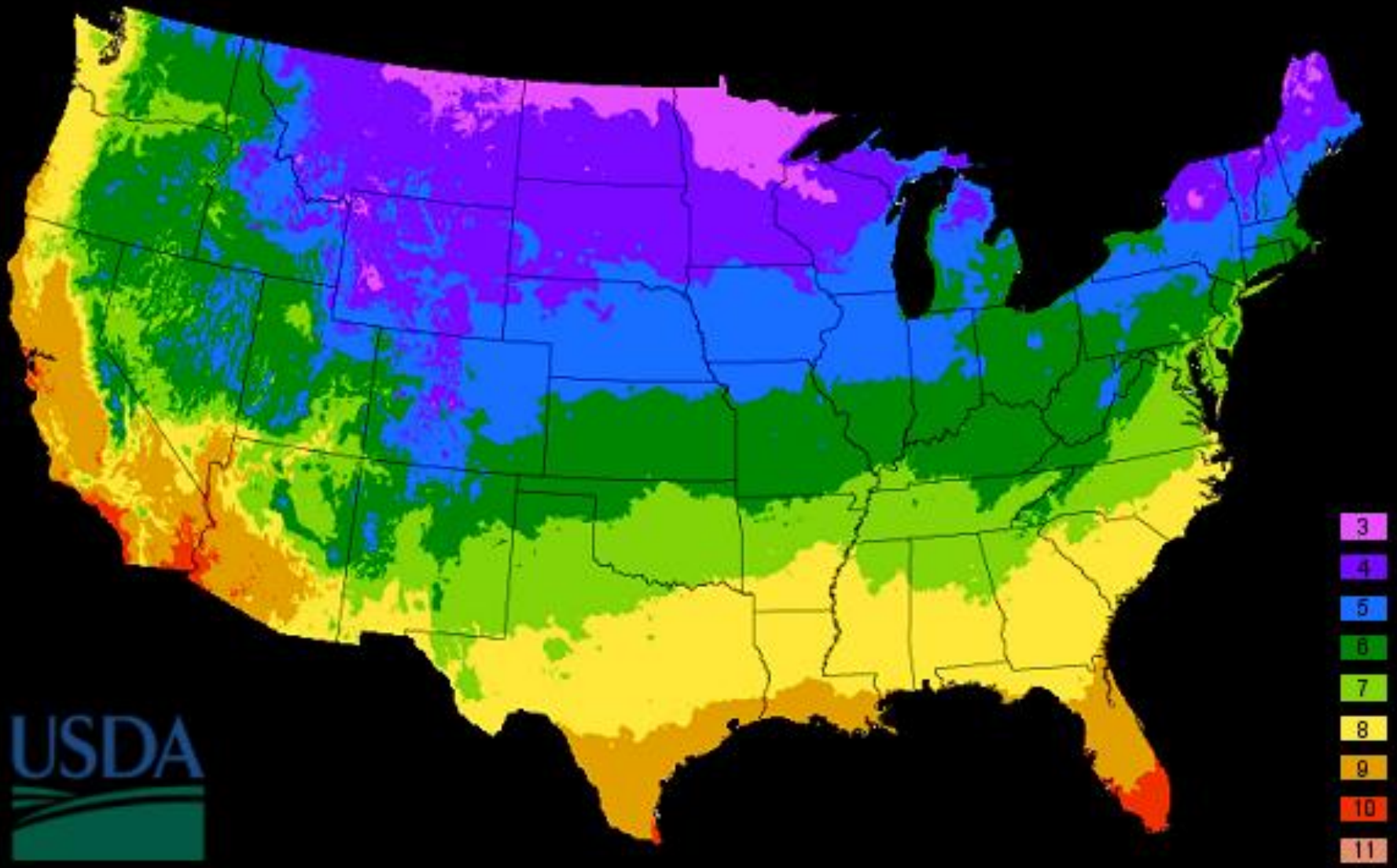
RIGHT TREE, RIGHT PLACE

Things to Consider for Proper Tree Selection and Planting

1. Soil Type, Where Do You Live?
2. Depth (can roots go to depth of 36”)
3. Texture (sand, silt, clay)
4. Compaction/ drainage
5. pH (alkalinity/ acidity)
6. Salinity
7. Fertility/toxicity

BE "CLIMATE SMART" IN YOUR TREE CHOICE

1. Our Climate is Changing, that is a Fact
2. We are getting more extremes in our weather
3. Choose trees for what our climate will be like in the next 30-50 years
4. Therefore, choose trees that will tolerate higher heat, more drought and possible wild swings in temperatures
5. Smart choices for the future are to go with drought tolerant trees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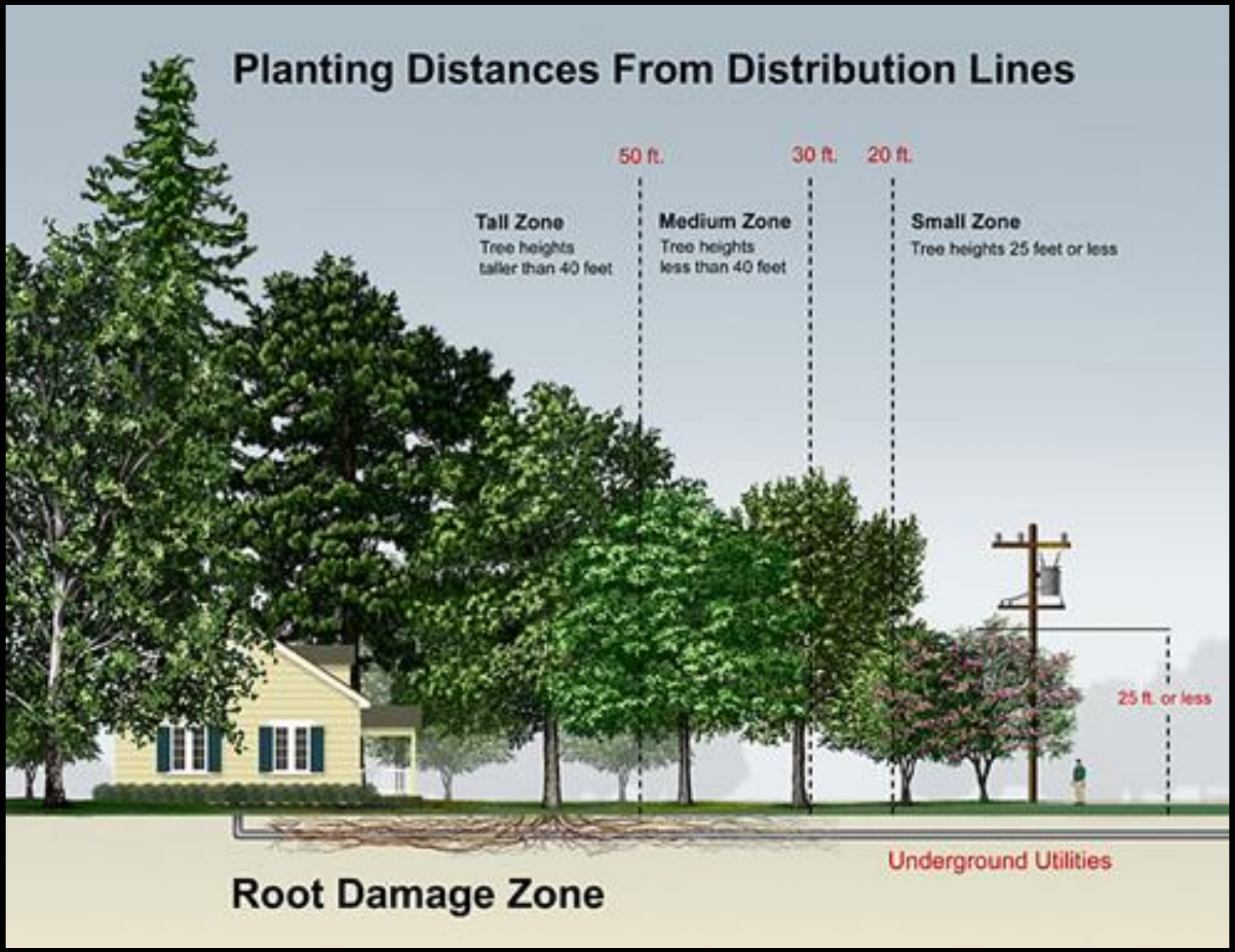
CHOOSE THE RIGHT SPOT TO PLANT YOUR TREE

1. Look Up---Look Down---Look All Around
2. Trees grow up, (trunks)—out, (branches)—and down, (roots)
3. Watch out for: buildings, power lines/overhead utilities, buried utilities, (gas, water, electrical, sewer, etc. lines), sidewalks, right of ways, etc.
4. Don't plant next to an existing tree, unless you have planned for this
5. Talk to your neighbor, you do not want to face future lawsuits
6. Consider security
7. Remember how cute it looked when it was small, what happened? Do your research first.


Planting Distances From Distribution Lines
50 ft.
30 ft.
20 ft.
Tall Zone
Tree heights taller than 40 feet
Medium Zone
Tree heights less than 40 feet
Small Zone
Tree heights 25 feet or less
25 ft. or less
Underground Utilities
Root Damage Zone

London Plane Tree

Tree Canopies for Walkability of City Streets, Reduction of the Heat Island Effect

Red Oaks

Tree Canopies for Walkability of City Streets, Reduction of the Heat Island Effect

Zelkova/Elm trees

SELECT THE RIGHT TREE

1. Just because they sell it in your area, doesn't mean it grows there!
   a) My neighbor planted a queen palm he bought at the local box store, so I guess they grow here…NO
   b) They sell azaleas at the store, I guess they grow here…NO
   c) Even though the climate zone across the U.S. may be the same, our soils are not
2. Do you want a shade tree, ornamental, flowering, fruiting, wildlife attracting, or are you just meeting community requirements
3. Consider maintenance, i.e. leaf/needle drop, fruit drop, pruning, will it attract unwanted wildlife…rats, bees, doves/pigeons, etc.

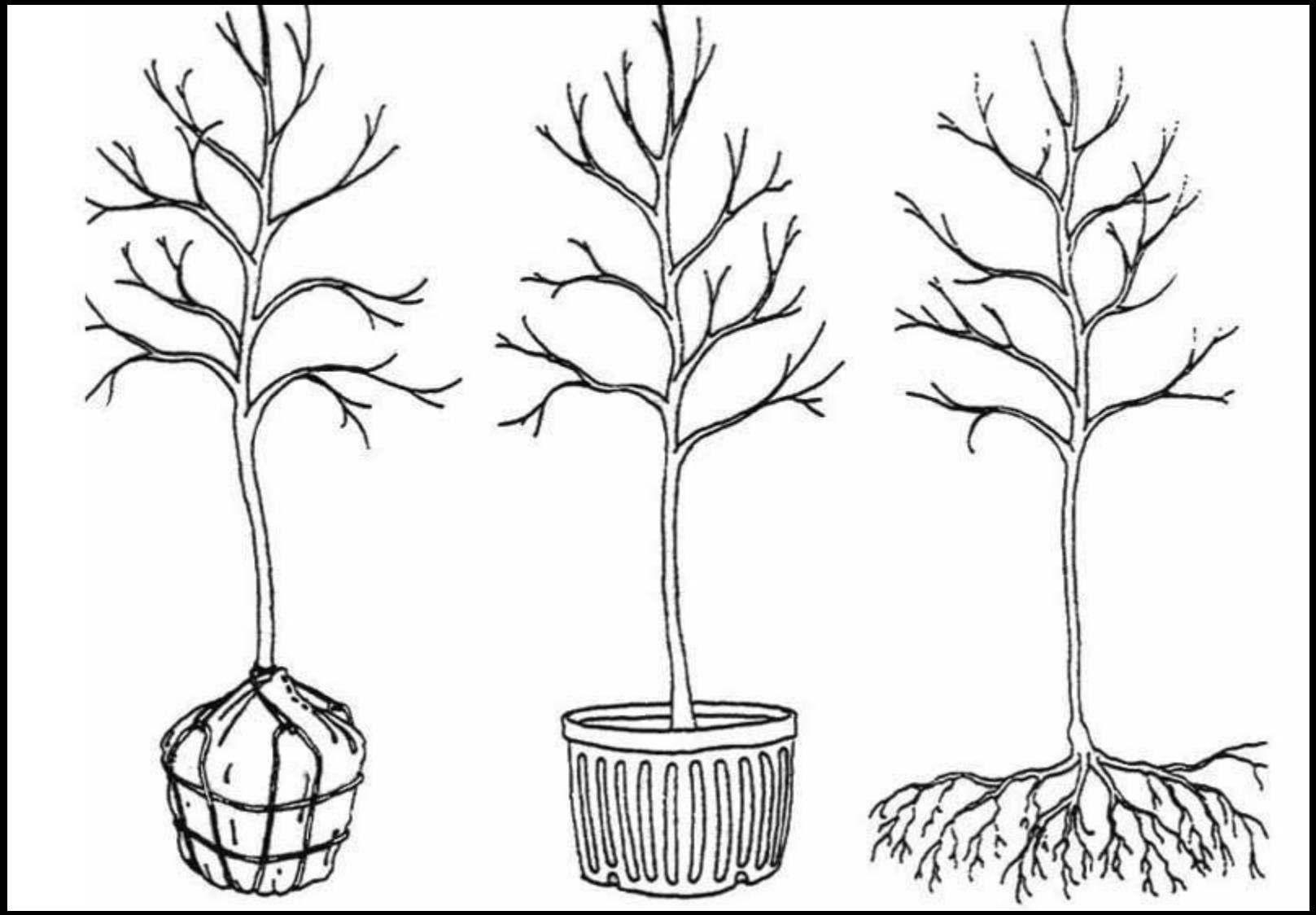
SELECT THE RIGHT TREE

4. Do you want a deciduous, or evergreen tree
5. Always consider the ultimate size it will achieve in time
6. Does the tree need to block a view, enhance a view, or is it the view you need
7. Cultivars vs. seed grown, which is better, or does it matter
8. If your neighbor gives you a tree, should you accept it?
    a) Invasive trees, (tree of heaven, Siberian elm, etc.)
    b) Allergen trees
    c) Short lived trees
    d) Trees with aggressive roots
    e) Disease/Insect prone trees

PREPARE THE PLANTING SITE, AND PLANT THE TREE

1. Now that you have chosen the perfect location, you need to tidy the area, dig the hole and plant the tree.
   a) Remove grass, weeds, rocks, or other debris from the top of the planting area
   b) Dig a hole that is no deeper than the container, B&B, or root structure of the tree
   c) Check for caliche…this is a southwestern problem that needs to be addressed at planting, or before
   d) Make the planting hole 3-5X wider than the original container
   e) No need to amend the soil, unless there is a specific reason

Look for Good Branch Structure and Correct Proportions



PREPARE THE PLANTING SITE, AND PLANT THE TREE

1. Now that you have chosen the perfect location, you need to tidy the area, dig the hole and plant the tree.

   f) If the tree is a B&B, place it in the prepared planting hole, remove the wire and coverings from the top, sides and bottom of the tree. Gently backfill the open hole with the native soil, you can add water to bring the soil into closer contact with the root ball.

   g) Bareroot trees, dig the hole as above. Making sure not to go too deep. Place the tree in the hole, spread the roots out and slurry water and native soil around the roots. This not only helps put water next to the roots, it also removes air pockets and helps make direct soil to root contact.

PREPARE THE PLANTING SITE, AND PLANT THE TREE

1. Now that you have chosen the perfect location, you need to tidy the area, dig the hole and plant the tree.
   h) For containerized trees, choose a tree that is in proportion to the container, the tree should not be overgrown in the container. A larger root structure to overall tree size is a healthier tree.
   i) However, do not select root-bound trees, i.e. trees where the roots are wrapped tightly together and circling in the pot.
   j) Once you have your healthy tree and are ready to plant, make sure the potted tree is well watered days before you intend to install the tree.

PREPARE THE PLANTING SITE, AND PLANT THE TREE

1. Now that you have chosen the perfect location, you need to tidy the area, dig the hole and plant the tree.
   k) With the planting hole prepared and the tree is in hand, gently remove the tree from the pot by grabbing the base of the tree, next to the roots and sliding the tree out of the container. If the tree and container are larger than 15-20 gallon size, you may need to cut, or disassemble the container to expose the root mass.
   l) Now there are a few options for the root system
   m) One, take the root ball and score the tree roots, then place the tree in the hole, check for proper depth of the root mass. The root flare should not be below final soil depth.

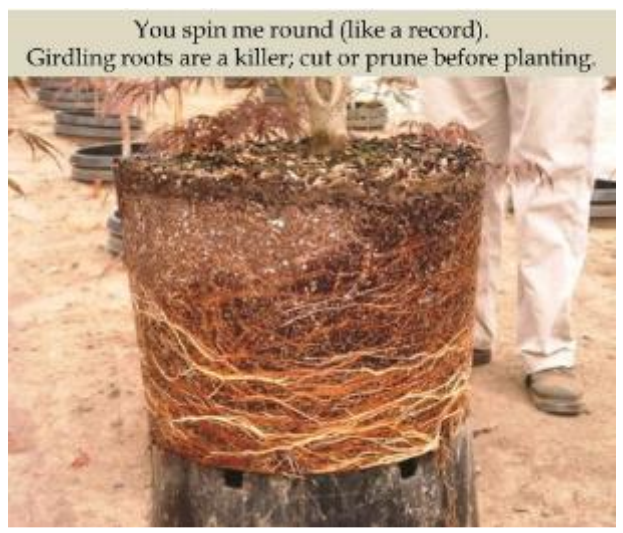
PREPARE THE PLANTING SITE, AND PLANT THE TREE

1. Now that you have chosen the perfect location, you need to tidy the area, dig the hole and plant the tree.
   n) Backfill the soil into the planting hole
   o) Two, gently remove the tree from the container, only this time, using your garden hose, wash at least 50% of the potting soil off of the roots.
   p) Check for any girdling/circling roots that will cause tree problems in the future and either prune them correctly, or gently bend them into the proper orientation.
   q) Backfill the planting hole with soil and water to add moisture and bring the soil into direct contact with the tree roots.

1. Now that you have chosen the perfect location, you need to tidy the area, dig the hole and plant the tree.

   r) Three, keep the original container tree root ball, score the roots as in step one, however, this time take a pie wedge out of the container root ball.

   This is just like cutting a wedge out of a pie, or cake. Take the cut from top to bottom and up to the trunk/root flair. This will eliminate circling of the roots and help the tree to begin rooting outwards. Make the slice wide enough for you to get your hand into the interior of the root ball to check the roots. Fill the void with your native soil.


You spin me round (like a record).
Girdling roots are a killer; cut or prune before planting.

PREPARE THE PLANTING SITE, AND PLANT THE TREE

1. Now that you have chosen the perfect location, you need to tidy the area, dig the hole and plant the tree.
   r) Once the tree is backfilled with soil, make sure the roots and trunk are at the proper soil level and have not settled.
   s) Insure the tree is in the correct position
   t) This is the time to stake the tree if necessary. Follow arboriculture guidelines for tree staking. This is necessary in windy areas for large trees, or for protecting new trees from uprooting, or vandalism.

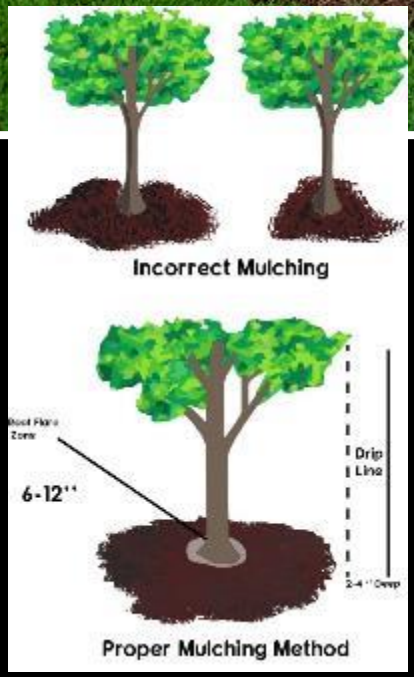
https://www.isa-arbor.com/education/onlineresources/cadplanningspecifications

ADD MULCH

1. Mulches can consist of organic matter, rock, glass, ground rubber tires, or any other material used to conserve moisture in a garden situation.
2. The main purpose of mulches are to retain moisture in the soils, act as weed suppressants, and to beautify the area.
3. When using mulches, consider whether the mulch may cause a problem with rodents, or insects.
4. Also, consider whether the mulch will drift, such as be blown off site, washed down a slope, etc. it should stay in place to be effective.

Mulching

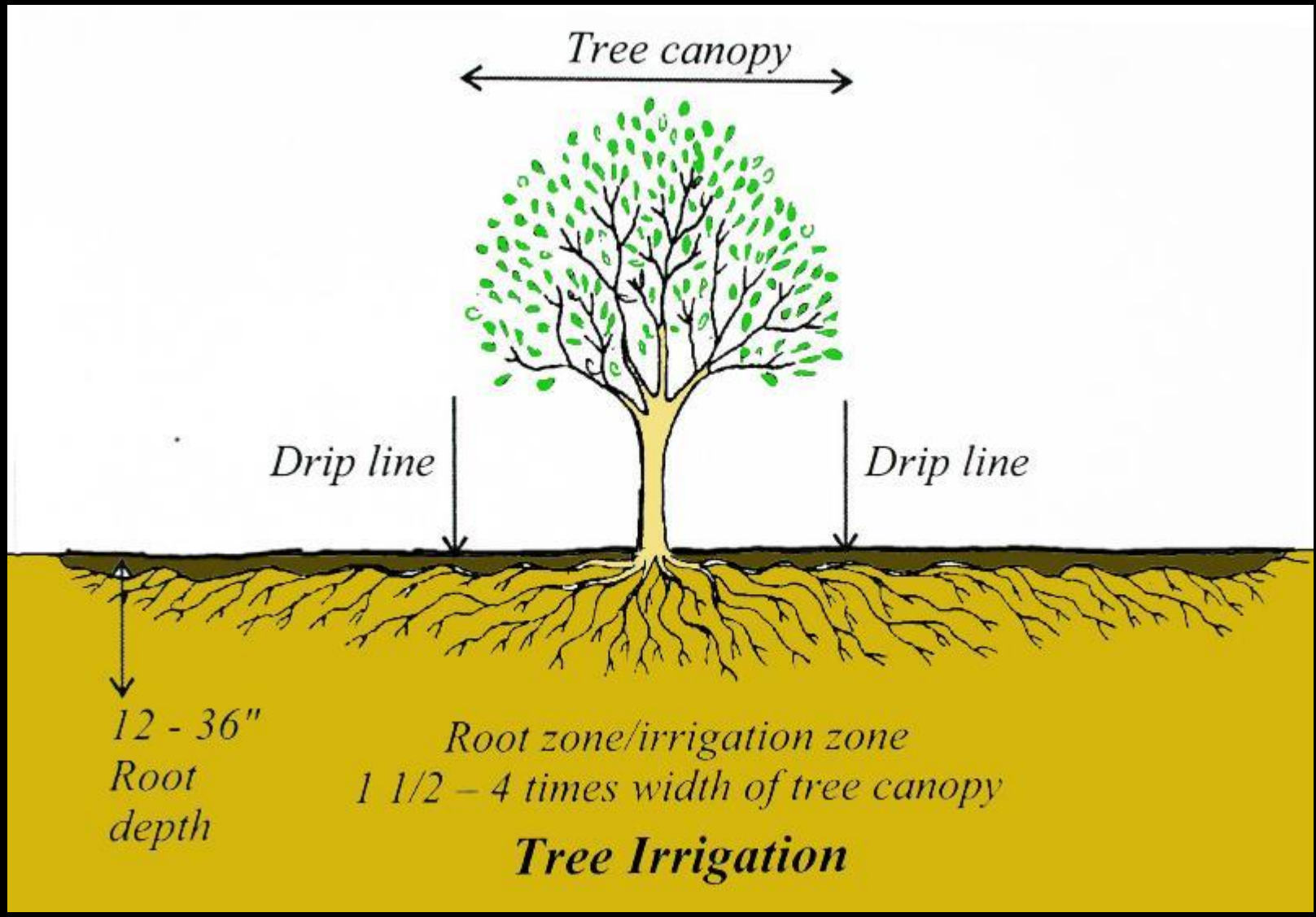

Correct Way


Incorrect Mulching
Drip Line
6-12"
Proper Mulching Method


Incorrect Way

WATER PROPERLY

1. Newly planted trees should receive deep periodic watering for the first full year, or more.
2. Drip irrigation is only as good as its design.
3. Drip irrigation needs to have the correct number of drip emitters for the new tree and the number of drippers needs to increase with the growth of the tree. Micro sprinklers may be better for tree irrigation.


Tree canopy
Drip line
Drip line
12 - 36"
Root
depth
Root zone/irrigation zone
1 1/2 – 4 times width of tree canopy
Tree Irrigation

Proper Irrigation

WATER PROPERLY

4. Make sure to run your timers for the correct amount of time to deliver enough water to the tree. If you need one gallon of water on a 1 gph dripper, and run it for 15 minutes, you only get ¼ gallon of water…32 ounces, that's two cans of coke…not enough to water the tree.

5. If you are in doubt as to how much water to give a tree, you may find this resource helpful. Remember, it is a general recommendation and a guide, you have to adjust it for your area and climate.

02-02-16 | Feature

Estimating Landscape Tree Water Requirements in the Western U.S.

Understanding How to Estimate Tree Water Requirements

By Dennis R. Pittenger, University of California Riverside

Evapotranspiration, or ET, is the process of water moving from the soil to the atmosphere through evaporation from the soil surface, and transpiration through plant uptake. To help estimate a tree's water requirements, a standard value known as reference ET (ETo), calculated from weather data, is then adjusted by a plant factor or PF, which is a set value depending on the plant species. Photo: Leslie Nistico, Green Concepts

https://landscapearchitect.com/landscape-articles/estimating-landscape-tree-water-requirements-in-the-western-us#article1

LAS CRUCES

Evapotranspiration per year is about 93”

‘Example’

1. 93 x 0.5 x 0.623 = 28.97, or about 29
2. 29 x (the diameter of the tree canopy)=# of gallons of water required by a tree for the season.
3. E.G. 29 x (10 x 10) = 2900 gallons of water for a 100 sq. ft. tree canopy.
4. So, 2900 gallons of water are needed as a base for this trees health.
5. 2900 / 8 months of summer for deciduous tree= 362.5 gallons per month for summer 8 months
6. 362.5 gallons per month/ 4 weeks per month= 90.625
7. 90.625 gallons per week/ 3 days per week, based on city ordinance= 30.2 gallons per day
8. 30.2 gallons per watering/ 1, one gallon per hour drip emitter requires the drip to run about 30 hours.
9. 30.2 divided by 3 drip emitters at 1 gallon per hour requires 10 hours of drip time.
10. 30.2 gallons of water required/ 15 one gallon emitters, requires about 2 hours of run time to deliver the appropriate amount of water for a 100 sq. ft. tree canopy.
11. To shorten run times, drip emitters can be increased from 1 gallon per hour up to 3, 5, 10 or more gallons per hour using the proper emitters.
12. For evergreens, instead of using 8 summer months as a guide for maximum use, 12 months of watering may be required to keep evergreens healthy.

Know When To Use Fertilizer And Other Inputs And When Not To

1. Avoid any fertilizers in the first year unless necessary.
2. If soils are poor, mild doses of liquid fertilizers are preferred.
3. Use organic fertilizer/amendments wherever possible to be in harmony with your environment.

Fertilizer Injury to
Arizona Ash

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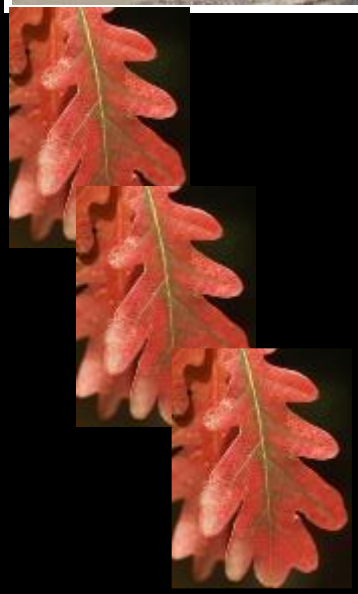
donaanaextension.nmsu.edu

Taxodium mucronatum

Fagaceae/Oak Family

Quercus muhlenbergii 'Chinquapin Oak'

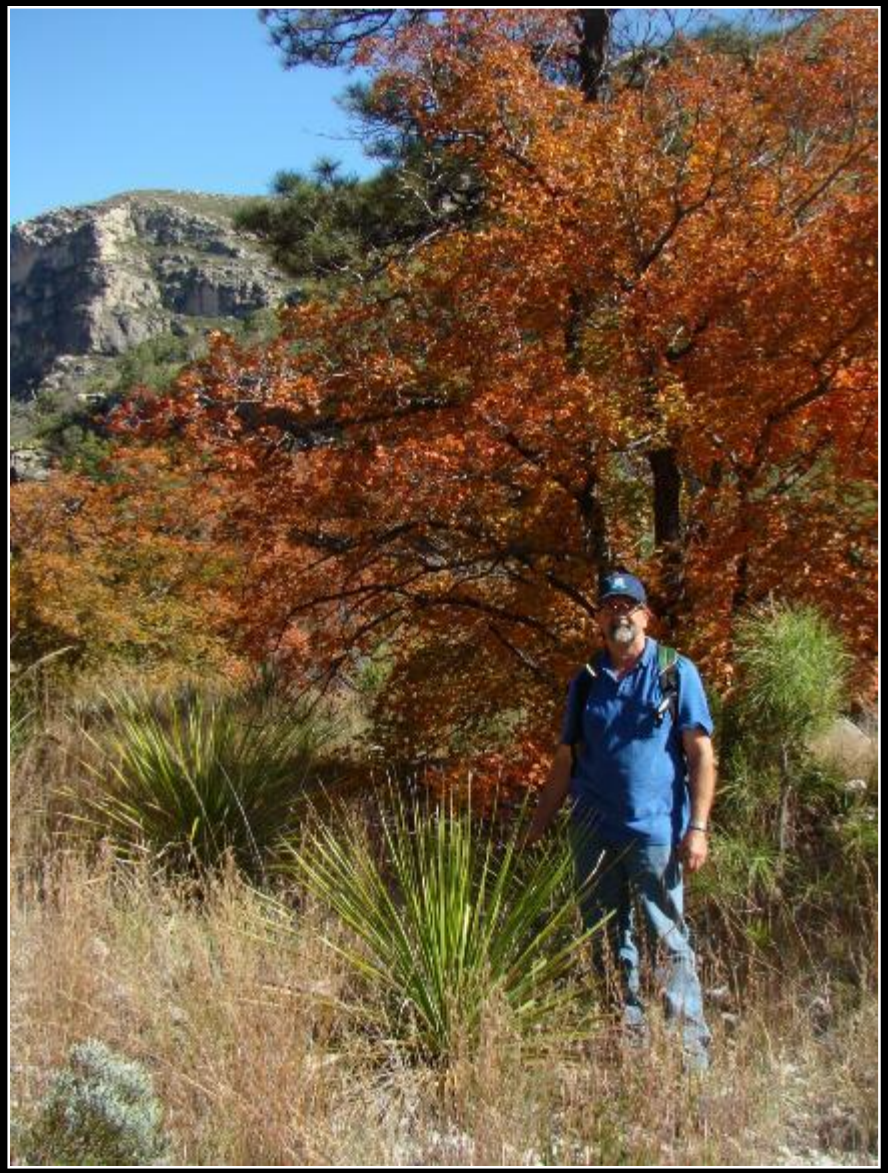


Quercus robur x alba
'Crimschmidt'

'CRIMSON SPIRE OAK'

Sapindaceae/Maple Family

Acer grandidentatum
'Big Tooth Maple'



Acer grandidentatum
'Mesa Glow'

NMSU, Dr. Ralston St. Hilaire, New Tree Introduction through J. Frank Schmidt & Son Company, Boring, OR

Cashew/Anacardiaceae Family

Pistacia chinensis

Pistacia chinensis ‘Keith Davey’ Male Tree with Good Fall Color and No Fruit

Pistacia ‘Red Push’

Olive/Oleaceae Family

Chionanthus retusus 'Chinese Fringe Tree'

Foresteria neomexicana

Bignoniaceae/Catapla Family

Desert Willow

Chilopsis linearis

'Desert Willow'

Cupressaceae/Cypress Family

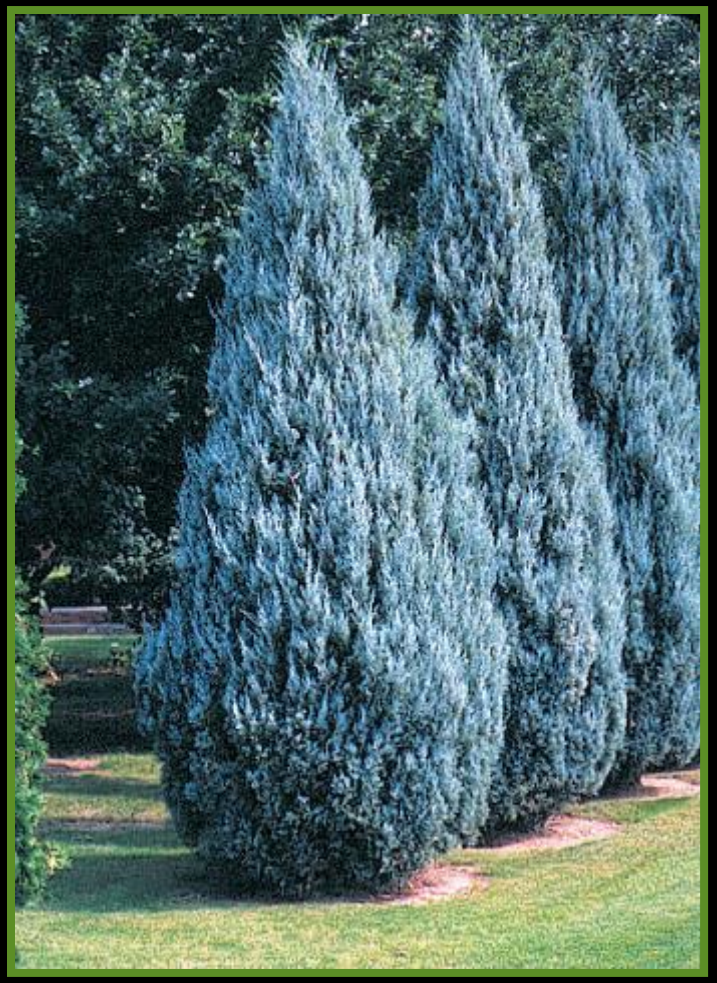
Juniperus deppeana

blue form *Pachyphylla*

'Alligator Juniper'

Juniperus scopulorum
'Rocky Mountain Juniper'

Rocky Mtn. Juniper
'Blue Heaven'



Rocky Mtn. Juniper
'Moffat Blue Juniper'

Juniperus scopulorum
'Rocky Mountain Juniper'