

Twenty Questions for Recertifying Tree Inspectors – 2020

Each question is written to have one best answer, based on research evidence as reviewed in the recertification webinar.

1. Which of the following nursery stock types is most likely to have the best developed root system (root density) with the fewest root problems, such as encircling roots?
 - a. Those grown in smooth plastic containers.
 - b. Those grown in air root-pruning containers.
 - c. Field-grown trees that are harvested as bare-root trees.
 - d. Field-grown trees that are harvested as balled-and-burlapped trees.

2. The greatest advantage to using gravel bed trees for planting in landscapes is:
 - a. The ability to plant bare root trees in the autumn when there's less moisture stress.
 - b. Gravel bed trees have a much higher survival rate than balled-and-burlapped trees, especially with oaks.
 - c. Gravel bed tree canopies grow much faster and bushier than containerized trees.
 - d. Gravel bed trees cost the same as balled-and-burlapped and containerized trees but are easier to handle.

3. A landscape soil that has a percolation rate of 1 inch per hour for 24 hours would be good for growing?
 - a. Trees that only grow in swampy areas.
 - b. Almost any tree.
 - c. Trees that only grow in deserts.
 - d. Only trees that survive deicing salt spray drift.

4. Some bare-rooted trees should be “sweated” before they are planted out as street or park trees. Why?
 - a. They need to reduce water-weight in order to survive.
 - b. Their core temperature needs to be brought up to approximately 92 degrees F before they can survive in a commercial landscape.
 - c. “Sweating” selects out the trees most likely to survive as street trees because they probably won't be watered much after installation.
 - d. “Sweating” helps bring the trees out of their winter rest period and allows them start to grow sooner rather than later.

5. Grow Tubes are used to successfully grow young trees for the first 1-4 years in the landscape. What are the main reasons that Grow Tubes help trees grow so well?
 - a. They are cheap, they are expandable, and they are used for larger calipered trees.
 - b. They encourage trees to grow tall and skinny, they promote extra thick bark, and they protect trees from wildfires.
 - c. They provide protection from browsing animals, they promote rapid height growth, they allow trees to move slightly and build up stem growth and strength.
 - d. They are available in a wide variety of colors, they are used primarily for needled evergreens.

6. Adding 2-4 inches of mulch over the root zone of a newly planted tree:
 - a. Helps keep the soil temperature and moisture more uniform.
 - b. Prevents rabbit and vole damage to the tree trunk.
 - c. Prevents too much oxygen in the soil, which can kill roots.
 - d. Often causes cankers and decay on the tree trunks.

7. Poorly-drained soils and compacted clay soils harm tree growth and health in which way?
 - a. They reduce the amount of soil oxygen needed for healthy roots.
 - b. They cause tree roots to grow in circles around the tree trunks.
 - c. They cause trees to grow too fast and tall and unstable.
 - d. They tend to cause trees to develop very deep tap root systems.

8. Trees or shrubs growing in a clay soil with a penetrometer reading of 600 pounds per square inch (that's kind of high) can be expected to:
 - a. Tip over much easier.
 - b. Grow slower.
 - c. Develop much deeper root systems.
 - d. Require more fertilizer in order to grow normally.

9. A newly planted tree with a stem caliper of 1.75 inches will need approximately how many gallons of water **per irrigation** if planted in a normal, well-drained soil?
 - a. About four gallons.
 - b. About 20 gallons.
 - c. About 10 gallons.
 - d. About 1 gallon.

10. For the first year after planting a tree, the most important watering factor that determines whether the tree will survive and thrive is:
 - a. Dose (number of gallons of water per irrigation).
 - b. The type of watering device used (e.g., water bags, water wells, water rings).
 - c. Frequency of irrigations.
 - d. Alkalinity of the irrigation water.

11. Which of the following watering devices would be best if the newly planted trees are on a slope and the soil is a compacted clay?
 - a. A water ring or water bag.
 - b. A hose with no sprayer attachment.
 - c. A hose with a sprayer attachment.
 - d. A 2 inch diameter hose attached to a water truck.

12. Before planting containerized trees or balled-and-burlapped trees, they should be checked to determine if there is excess soil over their first, main order roots. How is this best done?
 - a. Remove all burlap, twine, and wire basket and wash off any excess soil before planting.
 - b. Probe with a surveyor's arrow or kabob skewer down through the container soil or through the burlap until you can feel and measure the depth to the first roots.
 - c. Remove the tree from the container and wash off the excess soil with a pressure washer or vacuum it off with a wet/dry vacuum.
 - d. Buy the trees from a nursery that assures you the roots are within a half-inch of the soil surface.

13. Which of the following materials or practices has been shown to harm newly planted trees through research conducted by the University of Minnesota's Urban Forestry Outreach Research and Extension nursery?
 - a. Leaving burlap intact.
 - b. Leaving wire baskets intact.
 - c. Leaving strings and ropes attached to tree stems intact.
 - d. Fertilizing newly planted trees with a slow release, low nitrogen fertilizer.

14. When should trees be staked or guyed?
 - a. Every tree should be staked or guyed when planted for one year.
 - b. When their root system doesn't keep them from tipping.
 - c. If they are evergreen trees taller than three feet.
 - d. If animal damage is likely to occur to the tree trunks.

15. If trees need to be staked, what are the best practices?
 - a. Attach the tree to the stake/s with wide, flexible strapping, approximately 2/3 the distance from the ground to the first branch.
 - b. Attach the tree to three stakes with wire fed through sections of garden hose, attached firmly to the tree trunk immediately below the first branch.
 - c. Attach the tree to two stakes with rope wrapped around the tree trunk.
 - d. Attach the tree to the stake/s for a minimum of two years after planting.

16. From the following choices, research (a lot of it) has shown the most important thing that a planter can do to ensure the newly planted tree will survive and thrive is:
 - a. Fertilize the tree at planting time.
 - b. Make sure the main roots are within an inch of the landscape surface.
 - c. Add peat moss or decomposed manure at planting time to the backfill.
 - d. For balled-and-burlapped and containerized trees, dig the planting hole a minimum of five times the width of the soil ball/container.

17. What should be pruned at planting time for most shade trees?
- Approximately 1/3 of branches should be removed to compensate for the loss of roots from transplanting.
 - Dead branches.
 - All branches lower than 6 feet 6 inches from the ground.
 - Any branches with flowers. Flowering branches take energy away from the development of the tree's structure.
18. If deer, rabbit, and vole damage is common in the area where trees are planted, what type of stem protection is necessary to prevent that potential damage?
- Corrugated paper wrap up to the first set of branches.
 - Chicken wire or plastic spiral wraps, 30 inches in length.
 - One-half inch openings hardware cloth or high impact plastic mesh tree guards, 48 inches in length.
 - One-quarter inch openings hardware cloth or Grow Tubes, 48 inches in length.
19. If tree protection devices such as corrugated paper wrap, solid plastic tree trunk protectors or solid plastic spiral wraps are left on newly planted trees year round for 2-4 years, what is the worst that is likely to happen?
- The tree trunks covered by the protectors won't increase in diameter.
 - Your neighbors will complain about the looks of the tree wraps.
 - Wasps will make nests between the wraps and the stems.
 - The tree trunks will decay.
20. Which of the following practices is most critical for the health and survival of newly planted trees in Minnesota?
- Removing all weakly attached branches at planting time.
 - Digging the planting hole five times the width of the root system and mulching to a depth of 4 inches.
 - Incorporating peat moss, nutrients, and hydro gels in the planting hole backfill soil.
 - Frequent watering (2-3 time per week) throughout the growing season and autumn, providing the landscape soil has a percolation rate of 24 inches in 24 hours.