

Fall Tree Planting

By Toso Bozic

Fall presents an excellent opportunity to plant larger caliper trees on your property. " **Caliper trees** " are older trees with a minimum trunk diameter of 4 cm, measured 15 cm above ground level. Larger caliper trees have a trunk diameter of 10 cm, measured 30 cm above ground level. In Alberta, spring often brings dry soil and low humidity. However, during fall tree planting, soil moisture is higher due to summer and autumn rains, providing an advantageous environment for root establishment in preparation for the upcoming spring. Proper planting techniques are essential, especially since caliper trees can be susceptible to transplant shock. Before planting caliper trees on your property, consider the following steps:

Tree Species Selection

Selecting a diverse range of tree and shrub species is vital for your property's health and well-being. Alberta hosts numerous tree and shrub species, including introduced ornamental varieties that thrive despite our challenging climate conditions. To make informed choices, you can use online tools to identify suitable trees and shrubs for your property. Additionally, explore local parks, arboretums, and tree nurseries to observe what grows well in your vicinity. You might be surprised to find a variety of trees such as oaks, maples, ashes, lindens, pines, spruce Douglas, balsam fir, and Ohio buckeye in your area. Hardy flowering trees and shrubs also offer an extensive selection. Consult with local experts like parks managers, horticulturists, or arborists to determine which trees are suitable for your location.

Planting Site

Choosing the right planting site is critical for the long-term success of your tree. Follow the "**right tree on the right spot**" principle, considering factors such as soil quality, moisture levels, slope, sunlight exposure, and physical barriers like buildings, fences, or power lines. Prior to selecting a site, visit mature trees in your area to gauge the space required when they reach maturity.

Planting Stock

Keep in mind that caliper trees are significantly larger than small spring seedlings. Towards the end of the season, many local tree nurseries and retail stores offer trees and shrubs for sale in containers, baskets, or burlap-wrapped bundles. Carefully inspect the trees before purchasing:

- Container Stock: Examine typical black container stock for any signs of damage, such as broken branches, weak branch crotches, insect infestations, disease, or irregular shapes. Most importantly, check for any indications of a bound root system. If you notice roots emerging from the container, the root system may be bound, potentially leading to future tree health issues. If roots are excessively bound or trees are damaged, avoid buying them.



Picture 1. Variety of sizes for potted trees and shrubs

Balled and Burlap Trees (B&B): These are usually larger caliper trees, removed with their root balls enclosed in wire baskets and wrapped in jute burlap. Thoroughly assess the overall health of the tree before making a purchase.



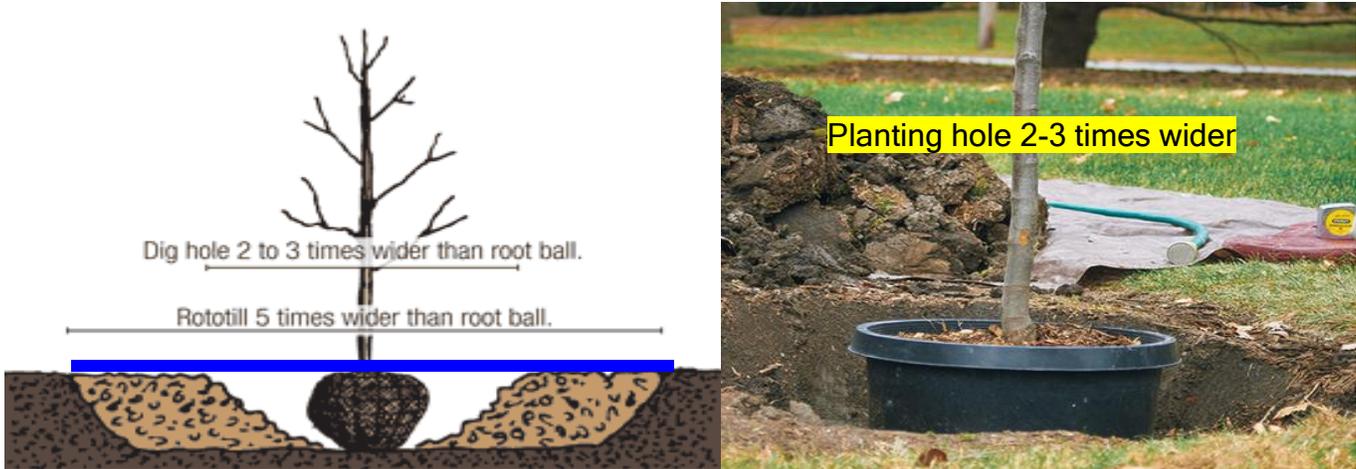
Picture 2. Burlap and Basket (B&B) tree requires additional equipment and care for transportation or planting.

Planting

Proper planting techniques are crucial for the successful growth of your trees. When dealing with plastic container stock, carefully remove the soil by shaking, soaking, or washing it with a hose to reveal the root system. This allows you to identify potential issues like circling, hooking, or girdling roots, which may require pruning or removal. Plant the tree so that the roots sit just below the surface. **Dig a hole as deep as the roots and twice as wide**, allowing new lateral roots to spread into the surrounding soil. For burlap-wrapped trees, place them in the hole, remove the burlap, and cut the wire on top before filling the hole with soil.

You may need to do proper pruning or remove the roots that girdle the trees. [The Arbor Day Foundation](#) provides educational videos and guide how to plant caliper trees and shrubs. [Please click on link](#)

- Tree planting hole size - Dig a hole that **is as deep as the roots, but 2 to 3 times wider than root ball**. The wide hole will make it easier for the new lateral roots to grow into the surrounding soil. For a basket and burlap tree, properly fit it into the hole, then remove the burlap and cut the wire on top before filling the hole with soil



Picture 3: Planting hole and planting depth (blue line)
 Photos Source: Arbor Day Foundation (L) and Garden Magazine (R) .

- Tree planting depth – plant so that roots are just below the surface with root collar of planted tree must be slightly above ground level.



Picture 4: Root collar and planting depth

Backfilling – **do not add soil amendments to the planting hole**. In very poor soils you may add up to 20 % of the good soil and has to be mixed with native soil. After you set tree straight firmly pack the soil to avoid air pockets

Staking

Staking is generally unnecessary for small, sheltered trees. However, in windy areas or for tall, leggy trees, staking may be required. Remember to remove stakes after a few years to avoid hindering the tree's natural growth.

Mulching

Mulching offers several benefits, including weed prevention, protection against extreme heat, and moisture retention around trees. Create a donut-shaped wood chip cover around your tree to keep water in. Avoid placing wood chips directly against the trunk, as this can attract rodents, insects, and potential diseases. Mulch also safeguards tree roots from winter freezing and reduces the risk of root damage and tree mortality.



Picture 5. Create donut not volcano shape around trees with mulch.

Watering

After planting, ensure that your tree receives sufficient water before the onset of freezing temperatures. The amount of water required depends on the soil type and the specific water needs of the tree species. Water immediately after planting and again three days later. Avoid letting the tree dry out; if you can easily insert a 6-inch screwdriver into the soil, it has sufficient moisture. Drip irrigation serves as a long-term solution for watering your trees, while turf irrigation may not be optimal.

Fertilization

Fall planting generally does not necessitate fertilization unless there is a nutrient deficiency in heavy clay soils. Avoid fertilizing trees and shrubs after August 1. For heavy clay soil, consider fertilizing after leaf drop.



As the leaves begin their spectacular transformation from vibrant greens to a kaleidoscope of reds, oranges, and yellows, the fall season offers a unique and often underestimated opportunity for tree planting. Fall tree planting is a rewarding endeavor that can beautify your landscape and provide enjoyment for generations to come. By following these steps, you can maximize the success of your fall tree planting efforts and ensure the health and longevity of your caliper trees. By selecting the right tree species, using proper planting techniques, and providing ongoing care, you can harness the advantages of the fall season to nurture nature's beauty on your property.

For more information:

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