

WHEN THE TIME IS RIGHT, PLANT A BALLED AND BURLAP TREE

Are you interested in planting balled and burlapped (B&B) trees on your property but unsure when to do so and want more information about these types of trees?

The term ball and burlap defines the size and way these trees are sold. Ball refers to the soil and root system, which is dug up at the nursery upon purchase, in a ball shape. Burlap refers to how the root system stays intact. Particularly, wrapped in a burlap material to hold the roots and soil during transportation. The burlap and the twine or wire is removed when planting.

B&B trees are commonly the largest economical trees most readily available to landowners from nurseries. B&B trees offer a quicker return on investment than other smaller-sized trees on the market, which include containerized and bare root seedlings.

All trees appreciate in value over time given they are planted carefully and cared for consistently. Ensuring an appropriate planting location, watering routinely, and monitoring for defects is important. Consult a local certified arborist if any questions arise.

Keep in mind planting specifications concerning topography, climate, and seasonality.

Tree planting considerations

Topographic influence

Your residence's elevation is important to consider when preparing the planting of trees. The growing season is shorter at higher elevations as a result of lower

temperatures. Plants have greater exposure to UV light due to the thinner atmosphere, and soil moisture content will depend more on the slope aspect (the direction a slope faces the sun). Northern aspects will have more moisture due to less sun exposure. Lower elevations offer the opportunity for more species diversity due to less harsh



Twine secures the top of the ball to the wire basket and trunk of the tree.

Further reading

Planting B&B trees in Wyoming - Wyoming Tree Owner's Manual
bit.ly/WYOtreemanual

Colorado State University Watering Factsheet
bit.ly/fall-winter-watering

The Myth of Winter Watering
bit.ly/winter-watering-myths

Protect trees now to prevent severe winter damage
bit.ly/winter-tree-protection

Transplant Shock of Trees and Shrubs. Ornamental Diseases, Revised 2001.
bit.ly/tree-transplant-shock

environmental conditions. Note the climate and seasonal influences a newly planted tree endures before its first summer in its permanent location.

Climate

Wyoming's climate is semi-arid in general; however, there are subtle microclimate differences between the mountains, high plains, and valleys that may influence precipitation and temperature fluctuations throughout a year. This also influences tree growth. Trees will utilize the water they need to grow, perform biological functions, and thrive.

Supplemental watering is a must for newly planted trees in Wyoming and surrounding states that have limited annual precipitation. Water your B&B trees 5-10 gallons per diameter inch, measured at 6 inches above the ground, per week during the summer. This will be contingent on your soil type.



Spring and fall temperature fluctuations can influence the window for optimal planting of trees. Trees should be planted during the cooler seasons.

A tree's water consumption exponentially increases during summer, the most grueling time of year because trees are susceptible to the stresses of extreme heat and drought. Water loss from trees is called transpiration. Transpiration fluctuates with temperature, relative humidity, weather events, and season.

Seasonality and planting time

Spring and fall are the two prime seasons to plant B&B trees. Trees are safe to plant in the fall until the ground is frozen solid, usually after the first hard frost. Fall planting allows trees a longer period to establish a strong and healthy root system before the difficult summer season arrives. The cooler temperatures alleviate some of the stress in comparison to planting during a warmer time of year.

Keep in mind, though, fall planting may be limited by the availability of selected species, or there could be a waiting period for the following spring. This may be due to nurseries growing their own inventory, limited availability, or purchasing and shipping trees from other producers.

The demand is different every year.

Fall plantings do have the benefit of leading into the dormant period before winter. Because of dormancy, the buds may not be susceptible to freeze damage. The tree's energy and growth are no longer going upward and outward into the branches, canopy, and trunk. Be aware late freezes during spring emergence could devastate a tree.

Spring planting is another option. Tree roots establish best when soil temperatures are at or above 50 degrees Fahrenheit. Spring most likely offers the most consecutive days with soil temperatures above 50 degrees. During summer, water the trees early in the day or late in the evening. This reduces the risk of evaporation and ensures more water infiltrates the root system, helping it thrive.

The most optimal time to plant B&B trees revolves around the last spring freeze. There is the risk a late freeze could impact growth if the tree is planted too early. Across Wyoming, leaf-out, bud break, and flowering/fruit development in the early spring is common; however, these can be affected by a late spring freeze.

A freeze can shock and kill new buds on the trees, notably with young trees (within the first couple of years

after planted in its permanent location). This could result in severe dieback, stunted new growth, no flowers or fruit production, or even kill the tree.

Dieback starts on the tips of branches and moves back toward the center of the tree. This is worth mentioning because all growth added to the tree in the current season grows outward from the tree's tips of twigs and branches.

Seasonality is crucial to keep in mind to ensure tree longevity and prosperity. For more guidance on planting dates and frost and freeze dates, the annual Farmer's Almanac is a helpful resource and can be found here: www.farmersalmanac.com/average-frost-dates.

Consider planting trees after the average last frost date to increase the likelihood of tree survival and growth; however, note that planting during the warmest months (typically July/August) could result in B&B trees not establishing even with thorough care because of harsh environmental factors such as heat, wind, drought, or any combination of the three.

This can be similar to transplant shock, which is the plant or tree failing to root well, which leads to poor establishment.

Newly transplanted trees lose a large amount of their root systems and tend to be under-watered, displaying symptoms as if in a drought. Conversely, overwatering can have similar effects and wreak havoc on a tree. Human-caused and environmental stressors can make trees more susceptible to injury, and the plant may no longer be able to function properly.

Conclusion

You can make an informed decision about the best time to plant a tree after considering the topography, climate, seasonality, and timing. Of course, any day a tree is planted is a good day for the Earth. Trees are resilient and will acclimate given they are fully cared for from the beginning.

While this article focused on planting techniques for balled and burlapped trees, the considerations for Wyoming are still applicable for any and all tree plantings.

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These folks can see the trees for the forest! **Nina Wajrowski** is the cooperative resource forester, **Tara Costanzo** the community forestry coordinator, and **Melissa Mokry**, the outreach forester, all with the Wyoming State Forestry Division. Contact Costanzo at tara.costanzo@wyo.gov and Mokry at melissa.mokry@wyo.gov.

