

# CONSIDERATIONS FOR TREE DESIGN

## (PLACEMENT IN THE LANDSCAPE)



The following design and planning recommendations are offered to help place trees in the landscape. For more plant or landscape information, visit [plantnebraska.org](http://plantnebraska.org) or [reteenbraska.unl.edu](http://reteenbraska.unl.edu).

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### Design & Placement Recommendations for Tree Planting

1. **Take time to plan ahead.** Don't let a 30 second decision become a long-term problem!
2. **Pick trees to match site constraints and limitations** – not the other way around.
3. **Trees function in several ways and can provide many benefits that should be considered when placing them in the landscape.** They provide shade, block cold winds, screen bad views, reduce stormwater runoff, filter dust, reduce utility costs, buffer noise, attract/sustain wildlife, help create outdoor space (rooms), help kids play, relieve stress, create better views, bring nature to the city, feed humans, lengthen the life of pavement, calm traffic, reduce heat island effect, capture CO2 and generally improve the aesthetic nature of a community or neighborhood.
4. **Key Concept: Massing and separation from turf grass!** Try not to scatter trees individually, but instead plant trees in groups and in association with other plants such as shrubs, perennials and groundcovers. Massing trees and other plants together helps create islands with many mutualistic benefits including reduced conflicts with lawn care (mowing, trimming, irrigation, etc.); greater resistance to weather events; better soil health; better drought tolerance; fewer disease and insect problems; and better aesthetics.
5. **Work to maximize shade benefits.** Trees placed on the south and west sides of homes and other structures can greatly reduce indoor temperatures and energy consumption. Trees along streets help shade pavement, reducing the local heat-island effect. Deciduous trees provide shade in summer while allowing solar gain in the winter after their leaves have fallen.
6. **Plant a diversity but don't plant one of everything.** It's important to strive for broad species diversity across a large property, neighborhood or community. However, too many disparate shapes and colors can look cluttered and off-putting. Try to balance the benefits of diversity with the value of repetition. Planting in groups of 3s and 5s is a good rule of thumb.
7. **For street trees, emphasize taller-growing, canopy-forming species that reduce potential vehicle and pedestrian conflicts.** Plan for tree canopies to be at least 8' above sidewalks and 15' above streets.
8. **Windbreaks should be more diverse and should include deciduous species.** Most windbreaks in our region have been planted to a just a few types of evergreens, which reduces their resiliency to diseases, insects and storms. In addition many evergreens are struggling from a warming climate and planting them tightly together often speeds up disease pressure. Windbreaks should include deciduous species to help improve diversity and resiliency. Several oak and viburnum species hold their leaves well into the winter, making them a good choice for winter wind protection.
9. **Some evergreens become nice shade trees over time.** Generally, evergreens are planted to achieve a relatively solid vertical mass. However, some pines and junipers are self-pruning of lower branches and become decent canopy trees in time, an especially important consideration for western Nebraska. Ponderosa pine is especially good in this regard.
10. **Beware of power lines and potential utility conflicts.** They exist all over our communities.
11. **Work with thine neighbor to help avoid social conflicts.** Property line issues are a common problem.

**DID YOU KNOW?** Fifty different species of trees are native to Nebraska. Check out Nebraska Statewide Arboretum on-line at [www.plantnebraska.org](http://www.plantnebraska.org)