

RIGHT TREE, RIGHT PLACE

Site Assessment and Species Selection

Plant the Right Tree in the Right Place!

Every tree has characteristics (mature size, growth habit, light requirements, soil needs), and every planting site has conditions (growing space, obstructions, soils, light patterns, topography). For optimal tree health and growth, take care to match the tree to the site conditions. To begin, answer the following four questions:

1 Why are you planting the tree?

Tree species and varieties vary greatly. In order to achieve desired outcomes, you need to determine the purpose of the planting. What do you want the trees to provide - shade, fruit, seasonal color, a windbreak or perhaps water treatment?



2 What are the site conditions above and below ground?

Evaluate the site to understand the site's limitations and potentials. Ask yourself:

- Does the space support a large, medium or small tree?
- Are there overhead or below-ground wires or utilities in the vicinity?
- Are there clearance needs for sidewalks, patios or driveways?
- What are the environmental conditions such as hardiness and light exposure?
- Evaluate the soil: what's the soil volume, pH, drainage rate?
- Are there potential pollutants to be aware of like road salt?

3 What type of maintenance is necessary?

While species differ in maintenance needs, all plantings require maintenance, especially watering, during the early stages of establishment. Investing in tree care will greatly improve the prospects for growing healthy, long-lived trees.

- Do you have time to water the newly planted tree until it is established or will you need assistance?
- How will the tree's natural form fit with the site or will it need regular pruning?
- Is the tree susceptible to common diseases and pests?

4 What are the best trees for long term success?

Based on the purpose, site conditions and maintenance requirements develop a set of criteria that will be used to select the most suitable trees. Certain criteria should hold more weight than others, such as a tree's hardiness to low temperature. Choosing a plant based on its' mature size and ability to withstand environmental conditions, will prevent infrastructure conflicts and lead to long-term success for the trees.

Rarely will you find the perfect tree that will fit an entire list of selected criteria, yet answering these important questions can avoid many unforeseen pitfalls. Use the following worksheet to help you match a tree to a site.



Site Assessment & Species Selection Worksheet

Complete the following worksheet to help identify appropriate tree species for the site. Then use the Vermont Tree Guide at vtcommunitytrees.org to select the right species for your site.

Site Location/Description

Hardiness Zone *

- 5a (-15° to -20°)
- 4b (-20° to -25°)
- 4a (-25° to -30°)
- 3a (-30° to -35°)

Mature Size *

- Height:
- Spread:

Size of Planting Area *

- Small: Tree pits, greenbelts < 6 feet
- Medium: Larger tree pits, greenbelts >6 feet
- Large: Parks, open space

Form

- Spreading
- Columnar
- Oval
- Round
- Pyramidal
- Vase

Tree Features

- Flower
- Fruit
- Fall Foliage
- Winter Interest
- Evergreen
- Wildlife
- Native to VT

Site Limitations *

- Drought
- Poor Drainage
- Alkaline Soil
- Overhead Space, i.e. power lines, buildings
- Salt
- Air Pollution
- Shade

*Indicates the most important criteria for species selection.

Select For Species Diversity

A monoculture or single species plantings, leaves your landscape vulnerable to disease and insect pests, which can devastate a community's urban forest. Think about Dutch elm disease. When planting, always strive for a diverse species population.



Katsura Tree - *Cercidiphyllum japonicum*
Brattleboro, VT

Examples of Salt Tolerant Trees

American Elm, Bur Oak, Crabapple, English Oak, Ginkgo, Green Ash, Hackberry, Honey Locust, Horse Chestnut, Japanese Tree Lilac, Red and White Oak

References

Recommended Urban Trees Site Assessment and Tree Selection for Stress Tolerance. Cornell University.

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