

# Planting Fruit & Nut Trees

## Site Assessment & Species Selection

### Why are you planting fruit and nut trees?

- *What are your goals?* Educating about climate, or pollinators? Increasing access to healthy food? Engaging the broader community? Adding beauty or shade to your site? Based on your goals, some examples of selection criteria for your trees/shrubs: beauty, bounty, nutrient density, diversity, pollinator friendly, longer production season, fewer pests, less maintenance, native species.

### What are the site conditions above and below ground?

- *Does the space support a large, medium or small tree?*
  - In regions with cold winters and short grower seasons, dwarf apple, apricot, plums, peaches and sour cherries need a spacing of six to eight feet, semi-dwarf trees about 15 feet, standard or full-sized trees about 25 feet, and pears about 30 feet. [4]
  - Tree fruit spacing in-row needs to be about equal to or greater than the expected mature tree/shrub height. Between-row spacing should not be less than the expected mature tree/shrub height, and should account for equipment clearance needs. [3]
- *Are there other spatial constraints in the vicinity?*
  - Above ground: Your planting space should be free from the interference of walls, eaves, sheds, fences, or powerlines.
  - Below-ground: Be aware of underground utilities, contaminated soil, or buried debris on site. [5] If your planting site is between, adjacent to, or near buildings, we recommend that you call Digsafe (811) to have the underground utilities marked out before planting.  
<http://www.digsafe.com/>.
- *Are there clearance needs for sidewalks, patios or driveways?*
  - Consider where unharvested fruit might fall and any associated hazards or unwanted messes that might arise.
- *What is the hardiness for your site?*

- Select fruit cultivars that are adapted to the [winter hardiness zone](#) of your setting. Winter temperatures affect the survival of most fruit crops.
- Also consider temperature variations that might be influenced by nearby structures that reflect heat, or affect wind patterns or nearby bodies of water that help to moderate temperatures. Planting fruit trees on a gently sloped site where cold air can drain away will lessen frost and freeze damage to blossoms in spring and frost damage in fall. Avoid northern and eastern facing slopes, as they tend to be cooler and may delay ripening of fall-harvested fruits. [3,6]
- *What is the light exposure for your site?*
  - In general, fruit trees require full sun (6-8 hours per day). [3]
- *What are the soil conditions?*
  - Drainage: Most tree fruits do well in sandy loam to loam soils with good drainage at least 8 inches deep. Heavy clay soils are usually a problem, unless drainage is improved by installing drain tiling, planting on berms or planting in raised beds. [3]
  - pH: Most fruit trees do well with a slightly acid to neutral pH (6.0-7.0).
  - Test the soil to better understand your conditions and what you can do about them: [UVM Extension Testing Lab](#).
  - Go beyond the soil test. Actually dig in to learn more about the soil compaction, drainage, texture, etc.
- *Are there potential environmental issues to be aware of on site?*
  - Is the planting site exposed to any pollutants like road salt?
  - Is flooding or soil erosion an issue on the site?
- *Is there adequate and accessible water available on site?*
  - Especially in their first years fruit and nut trees need lots of water to thrive and survive. Consider how you will address this high volume need. Also take time to think about who will be doing the watering and if it will be accessible to them and easy to use.

### **What type of maintenance is necessary?**

- *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?*

- *Does the site have significant wildlife pressure? If so, what can be done to protect your trees (i.e. ability to fence the site or wrap individual trees)?*
- *Are the selected trees susceptible to common diseases and pests?*

## Site Details

You will need to collect the following details about your site to be able to answer the above questions, assess the site and determine the best plantings for your conditions.

- Site Location/Description (including orientation, slope, surrounding infrastructure, sun exposure, water access, etc.)
- Size of Planting Area (area that receives at least 6 hours of full sun)
- Soil Conditions
- Hardiness Zone
- Site Limitations

## Tree Selection

For each tree you consider for your site you'll want to gather the following information for answering the above questions and making your final selections

- Mature Size
- Form
- Other Tree Features
- Susceptibility to Pests
- Winter Hardiness
- Pollination Needs

## Sources:

1. [Cornell: Cornell Guide to Growing Fruit at Home](#)
2. [MSU: Considerations for Growing Backyard Small Fruit](#)
3. [MSU: Considerations for Growing Backyard Tree Fruit](#)
4. [University of Maine Cooperative Extension: Tree Fruits](#)
5. [UCF: Right Tree, Right Place: Site Assessment & Species Selection](#)
6. [UVAC: Rick W. Harper - The Successful Planting Initiative: Conducting a Site Assessment](#)