

Choosing your Local Native Plants for a Miyawaki/ Pocket Forest

- First of all, visiting your local retail native plant nursery is an excellent way to learn more about the kind of native plants and trees you want to purchase for your pocket forest? Especially if you are planting a small forest, for your backyard, this may be the ideal place to purchase your entire forest. In Pdf 4 on our website below, we include what would be a simple list to choose from, if you live in the Willamette Valley ecoregion, including Portland, Salem, and Eugene. You can also gradually add on to the size of a small forest every year.
- There are two locations for the retail Portland Nursery, both located in Portland, and many more native retail nurseries located throughout our State, that you can locate online, and speak to on the phone.
- It is important to source your native plants and trees from your own local ecoregion, as located on our maps. A more inclusive map is located in the Join our Group section on our website below.
- Observe the native trees and plants around you, and how they grow? You will need to select at least 20, or more different species for your forest, in order to recreate our original native forests, that were more biodiverse than those we often see today.
- Here are the approximate ratios of plants and trees you need to select to grow a climax forest in 10-15 years. Locating the larger canopy trees a comfortable distance from buildings, and a little farther apart from each other as well:
 - 1) 15-20 % large canopy trees that are slower growing, and often quite long lived,
 - 2) 40-50 % faster growing understory trees,
 - 3) 25-30% shrub layer species, and

4) 8-12 % ground covering, herbaceous layer plants.

- If you are not sure of a species, check out [OregonFlora](#) from OSU. You can navigate to an entry button for an auditory tour of this site.
- You can use the site for choosing plants for different landscapes and eco-regions.
- Miyawaki method forests are planted on one planting day, or on somewhat closely successive planting days, in the late fall or early spring.
- In warmer, dryer climates of the State, fall may be the best choice for choosing a planting day. Since the plants will be in a dormant state, and ready to absorb the water in the soil all winter. Then by early spring the forest will be ready for healthy growth from the start.
- In the more rainy eco-regions, either late fall or early spring planting days, are fine.
- Large native plant and tree nurseries usually have a minimum order of plants you need to purchase online, in order to qualify for wholesale pricing, unless you are a special nonprofit?
- You might be able to combine your order with another acquaintance or friend to purchase at wholesale prices?
- Even if you end up paying retail prices, native plants and trees are often not overpriced in relation to non-native plants and trees. For their price they are definitely more useful! Native plants evolved tens of thousands of years ago, and help to support the healthy microbes in our soils, that allow formation of fungal networks, creating greater retention of water and carbon.
- In the end you will receive so much more joy, and value from a native forest, because you will know that you are helping the health of your soil, lowering the maintenance of your property, cooling



your immediate environment, and providing a mentally healthy environment for yourself, and others.

Plant Lists

- OSU extension provides a good plant list to choose from for Western Oregon, including a variety of plants and trees, as well as growing conditions, so you can Click ([Here](#)) for some choices.
- A different, infographic presentation of this list is located ([Here](#)). This list shows in short form the ecological needs of each native plant or tree.
- OSU also provides a list of Riparian plants, plants that can be adapted to stream banks. You can see recommendations for this list ([Here](#)).
- Edible plants are can be located throughout your forest, and you can find out more about these plants by Clicking ([Here](#)).
- The Portland Plant List is kept up to date regularly: Click ([Here](#))
- Akira Miyawaki recommended observing the species of native plants and trees around where you were going to plant a forest. So go out exploring!
- The larger nurseries have easily accessible lists of plants, and their availability listed online. For example: for the Beaverlake Nursery and its location. Click ([here](#))
- Depending on the purpose of your forest, and your site conditions, you can make the best selection of plants possible. We often recommend planting some of the ground level herbaceous layer of plants after the first year of growth, especially in a very small forest. Small forests often receive more sunlight from more directions. So that once the forest has some very sunny areas, and others very shady, you can fill in those places after the first year of growth.



- Edible plants, Native American historically useful plants, sweet smelling plants, bird habitat attracting plants, insect and butterfly attracting plants, all have beauty for you to make choices!
- You might want to eliminate some types of plants that have large thorns, or have slightly toxic fruit, if the plant is located in a public space.
- You will need a minimum of 20-26 different species of plants and trees, even for the small roughly, circular 6' X 10' forest we designed.

Bare root planting or one gallon container planting?

You can use either, but we recommend using small, to one gallon, well potted, but not root bound, plants and trees. Bare root plants are less expensive, sometimes sold in large bundles, and are usually planted in the spring, but are sensitive to many stresses, leading to 'transplant shock'. Native plants and trees sold in 1 gallon pots, or even smaller, are less fragile. Your choice depends on what kind of success rate you would like to see?

How will You Decide on Where You Will Order ?

- Pick a few local native plant nurseries in your area, and look at their inventory online, and their dates of availability, as well as prices. You may have to call them to ask questions?
- Check early in your planning phases, so you will have your planting site ready, free of the grass sod (at least 3 months with the 'sheet mulch' method, explained in our 2nd Pdf).
- For at least one example: we were advised to order our native plants in mid-July or early-August for a fall planting in October or early November.
- Nurseries schedule planting their saplings into pots at specific times of the year, making their availability higher at some times of the

year versus others. And they sometimes sell out late in the season, or have 'sales' late in the season.

- Speak with the nurseries you plan to do business with by phone, about the date of your 'planting day', thus assuring your supply,
- If you are planning a very small backyard forest, your plans may involve ordering together with another neighbor, or simply going to a local commercial nursery and paying a higher price for your native plants and trees.
- Some members of local plant groups on Facebook, may make some native plants and trees available to you for free, but you usually have to drive to their location for you to pick them up.

Which Plants Do You Choose, and What are the Rough Estimates

Miyawaki/pocket forest designers attempt to have a ratio of the 4 types of plants and trees that are sorted by mature height. Canopy trees grow over 50 feet tall (some of which are conifers), Understory trees end up under 50 feet and are usually less long lived, followed by Shrubs which can be up to 15 feet, and then the Herbaceous layer of plants that are located just above the soil level.

The Ratios of plants and trees that you can choose from (as noted earlier in this pdf):

- 15-20% Canopy,
- 30-40% Understory,
- 25-30% Shrubs
- 8-12% Herbaceous layer
- Remember these ratios are not absolute.

These are suggestions to attain height growth, and canopy quickly. They may be adjusted by your needs, and reasons for having a forest. Most importantly they provide shade, and cooling



temperatures for your environment, and your neighbors. Some native plants range widely in size, making them hard to categorize.

- In planting Miyawaki/pocket forests, shade loving plants like ferns, or other Herbaceous layer flowers, are best planted 1 year later, perhaps leaving spaces for them in the forest. This is especially true if the forest is exposed to sun throughout the day. However if the forest already has a level of shade naturally present on your site, you can plant these shade loving plants strategically. The trees can shade each other as they grow.

How Many Plants and Trees to Fill Your Forest?

The number of plants per square Yard or Meter is 3. In some ecosystems forest planter's plant up to 5 plants per square Yard. But in the PNW, our Canopy trees are so big that the smaller number works best. And those canopy trees need to be planted farther apart than the other plants in the forest.

We have a relatively smaller number of Canopy trees in the Pacific Northwest, and a relatively larger number of the other layers of native forests. So to reach a healthier and more biodiverse forest, we target at least 30 different species for larger forest plantings, 20 for smaller forests. Conifers should be about 20 ft from a building, but that is debatable. Read fully Chapter 11 written on the relative 'safety of trees' in the book wasteland to Wonder, the FREE downloadable book on this subject. This will give you more confidence and information.

All trees should be checked for disease at intervals, and you can learn signs of disease for differing species of native plants online. You can also ask a question on Friends of Backyard Habitats on Facebook, if you take a picture and post your native tree or plant. And you should contact an arborist if you are unsure.

Humans cause the vast majority of fires. So be a good steward for others. Human caused fires can ignite the materials houses are made from. And dry, large bark chips, as well as certain drought sensitive plants can be a cause for a house fire spreading.