More on Forest Farming

What is forest farming?

Forest farming is the intentional management and cultivation of **non-timber forest products**, or high value crops under the protection of the forest. The forest provides the ideal conditions that support the production of many desirable food crops like mushrooms, ginseng, syrup and much more.

What is a non-timber forest product?
A naturally produced product of the forest that can be harvested for human use other than timber. In other words, anything harvested from the forest that isn't from wood or require the cutting of trees. Non-timber forest products have three main uses: medicine, food, and ornamental purposes.

Medicinal *(aka Forest Botanicals)*	**Food**	**Ornamental**
		
American Ginseng (P*anax quinquefolius)* **Arthur Haines / Native Plant Trust**	Pawpaw (*Asimina triloba*) Southern Living	Maidenhair fern (*Adiantum pedatum*) **Walter Siegmund, 2007**

Forest farming combines forest management and gardening techniques. Landowners and land managers can enjoy additional benefits from their forests through forest farming, and can even earn some income along the way. The success of a forest farmer relies heavily on the presence of certain elements or characteristics that make up a healthy forest—that in turn support a healthy crop. These elements could be soil moisture and acidity, species diversity, and control of invasive species.

To harvest or not to harvest?

Forest farming can help conserve species that grow within the forest while growing your connection to your particular forest habitat. But when plants are improperly harvested,

or if the forest habitat is impaired, forest farming can have a negative impact. Due to the recent resurgence of foraging, native populations of important forest crops like ramps (*Allium tricoccum*), ginseng (*Panax quinquefolius*) and black cohosh (*Actaea racemosa*) have been declining. Many of these plants take several years to grow to maturity and reproduce their populations. Good forest farmers know they need to leave enough plants behind – or even help these plants reproduce – to make sure there is plenty for the future.

Overharvesting: Species At-Risk List

How to start farming your forest

SITE SELECTION

Farming the forest can be a big time commitment! So it is best to think of this practice as a long term investment with a variety of rewards.

First of all, ask yourself: "Can I grow my desired crop at this site?" In order to be a successful forest farmer, you need to be able to identify and assess the qualities of the site needed to grow a particular crop. For example, ramps love to grow on *moist to damp, well-drained sites* with a *pH range of 5 to 7.* Another important part of site selection is **slope** – how steep a site is - and **aspect** – the direction a slope faces. Knowing whether the aspect is north, east, west, or south facing gives you insight on the typical **microclimate** and soil properties. Ramps are commonly found on north facing slopes because they tend to stay cooler and moister throughout the year.

What is a microclimate?
A set of climatic conditions relative to a small area near the earth's surface. An area's microclimate is commonly characterized by the local temperature, humidity, air movement and light.

Check out this great video explanation of The Importance of Slope Aspect

The presence of **companion plants** is another key component of site selection to consider. Companion plants include trees and herbaceous plants that naturally grow or occur in the same ecosystems as your desired crop. Companion plants share a lot of the same qualities that your potential crop will require—ultimately informing you on soil moisture, acidity and substrate type (clay, organic matter, sand, etc.)

Locating these companion plants can cut out some of the work associated with site selection. For example, if you find populations of tulip poplar (*Liriodendron tulipfera*),

maidenhair fern (*Adiantum pedatum*), and trillium (*Trillium sp.*), then you are very likely to come across and/or successfully grow ramps!

Additional indicator species for *Allium tricoccum* (ramps)		
		
Basswood (*Tilia americana*) **Tatyana Azarova / Getty Images**	Squirrel Corn (*Dicentra canadensis*) **Vanessa Voelker / iNaturalist**	Hepatica (*Hepatica sp.*) **Tom Murray / USFS**

Learn more about Forest Farming Ramps!

There are resources available to help you determine the right site to choose. The Yew Mountain Center offers site visits to anyone interested in forest farming!

METHODS

One of the more common and less labor-intensive methods of forest farming is the **wild simulated method**. This practice takes place in, or emulates, a natural system. Desired crops are planted in areas where they will thrive on their own with little to no human intervention.

Once you've selected your site, you should begin to think about how you will **propagate** – or reproduce - your desired crop. Common methods of propagating plants are by *cuttings, layering, root division, and seed*. Some plants are hardy enough to be transplanted like ramps! It's important to do research on the best methods to propagate your desired crop in order to be a successful and eco-conscious forest farmer.

Sexual vs. Asexual Propagation
Sexual propagation is the growing of plants from seed. A seed is the product of pollen or spores (male sex cells) and an egg (female sex cell). This method of propagation results in an offspring that differs from the parent plants. **Asexual propagation** is the growing of plants from tissue taken from a parent plant. This method of propagation creates an clone that is identical to the parent.

Prepping the site you have chosen can take as much effort as you're willing to put in!

Here is a low-effort method:

- raking back leaves to expose the soil
- sowing your seeds
- raking the leaves back over

To ensure good seed-to-soil contact, press your seeds into the soil by stepping on them before raking the leaves back.

A more extensive method would be to clear an area of competitive or invasive plants. Once the area has been cleared of undesirable plants, then you can sow your seeds or transplant your specimen into the ground. Then it's nature's turn!

Thus far, we have been discussing the management and cultivation of one layer of your forest: *the herbaceous layer*. However, there are numerous other layers that exists within the canopy that you can harvest from. Learn how to utilize every layer of your multistory canopy by reading The Complete Guide to Food Forest Layers!

Additional Resources

- Appalachian Beginning Forest Farmer Coalition – Forest Farming Fridays each week on their Facebook page
- WV Forest Farming Initiative Facebook page