Is Forest Farming for you?

By: Benjamin Addlestone and John Munsell, Virginia Tech

Forest farming is an agroforestry practice that involves cultivating herbal, edible, decorative, and handicraft products under a forest canopy that is modified or maintained to provide shade levels and habitat that favor growth and enhance production. These products are called non-timber forest products (NTFPs). They are the plants, parts of plants, fungi, and other biological material that are harvested from natural, manipulated, or disturbed forests and used for commercial or personal purposes.



Forest farming involves growing non-timber forest crops under the shade of a forest canopy. Photo by: John Munsell, Virginia Tech.

Most merchantable NTFPs are harvested in the wild, and sold into longstanding markets. Forest farmers intentionally cultivate and rotate these marketable NTFPs in the woodlands they own or have access to. They produce and sell raw material that is traceable, unadulterated, and sustainable. This can lead to market share and price premiums because companies can trace and confidently sell verified NTFP-dependent products to discriminating consumers.

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Markets for NTFPs continue to grow. For instance, herbal supplement markets that purchase raw materials for their products currently exceed one billion dollars annually in the United States. The ramps (*Allium tricoccum*) market now exceeds 500,000 pounds traded annually, and plants retail for as high as \$28 per fresh pound. Log-grown mushrooms are popular and sell for upwards of \$15 per pound. Maple syrup is a staple product for many, but use of sap from other species (e.g., walnut, butternut, and birch) has expanded the sap/syrup sector, which is prompting growth in local production and differentiation akin to craft beverages.

Many farmable NTFPs are native to Appalachia. The region is iconic in the world of NTFP trade and home to habitat for many farmable woodland plants. It is full of ethnobotanical connections to herbal and edible woodland plants and fungi dating back generations. However, not just Appalachia, but Virginia broadly and surrounding states, are leaders in sourcing raw material, and industry efforts are underway to develop long-term contracts with forest farmers in Virginia and beyond.



Goldenseal is a popular medicinal that can thrive in loamy forest soils under 68 – 75% shade. Photo by: Catherine Bukowski, Virginia Tech.

Programs such as the Appalachian Beginning Forest Farmer Coalition

(https://www.appalachianforestfarmers.org/), Appalachian Sustainable Development's Herb Hub in Duffield (https://asdevelop.org/agroforestry/), and United Plant Savers' verified Forest Grown program (https://unitedplantsavers.org/forest-grown-verificationprogram/) help forest farmers profitably manage, harvest, and sell NTFPs to companies that aim to increase their access to unadulterated, sustainable, and predictable raw material. On top of price premiums, forest farming is seen as an economic opportunity for forest-dependent communities, landowners, and wild harvesting stewards. There are many resources for individuals who are interested in learning more about forest farming and thinking about how it may fit into their land use and management:

- 1. Virginia Tech maintains an expansive YouTube library of videos about forest farming, products, harvesting, production and sustainable management. <u>https://www.youtube.com/user/exforestfarming/featured</u>
- 2. The Appalachian Beginning Forest Farmer Coalition (ABFFC) is a network of forest farmers, universities, and governmental and non-governmental organizations that share a common goal of improving agroforestry production opportunities and farming capabilities among forest farmers. The collective aim is to increase awareness, capacity, and long-term viability through education, networking, and conservation. https://www.appalachianforestfarmers.org
- 3. PlantShoe is an online mapping tool that allows people to study a section of woodlands for preferred forest farming habitat. One can easily and freely create a site report indicating source data relevant to forest grown species (aspect, elevation, slope, soil fertility, soil moisture, soil drainage, and forest canopy). Based on the source data, PlantShoe also provides a heat map indicating areas with preferable habitat for several iconic NTFP species. https://plantshoe.org/Assessment/index/
- 4. Virginia Tech and the Southern Regional Extension Forestry team have developed an online course consisting of video-based modules that introduce forest farming, products, management, harvesting, marketing, and economics. Not only is this an opportunity to learn more about forest farming, but one can also obtain Continuing Forestry Education (CFE) credits. Look out for announcements soon about the launch of the course. <u>https://campus.extension.org/enrol/index.php?id=1572</u>

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