Plant Enhancement Activity – PLT05 - Multi-story cropping, sustainable management of nontimber forest plants

Enhancement Description
This activity involves the manipulation of forest species composition, structure, and canopy cover to achieve or maintain a desired native plant community to facilitate the sustainable management of native non-timber forest plant(s) (e.g., goldenseal, ramps, mushrooms, ginseng, ferns, "sugarbush", etc.).

Land Use Applicability
Cropland, Forestland

Conditions Where Enhancement Applies
This enhancement applies to forestland and cropland (sugar bush) where the forest is managed for harvestable non-timber plants in addition or instead of timber.

Benefits
Implementation of this enhancement activity can result in increased plant health and vigor, decreased intensity of pest outbreaks, decreased spread of diseases, decreased use of pesticides and improved water quality.

Criteria
Multi-Story Cropping can cover a wide variety and types of plants and products. Multi-Story Cropping requires the development and implementation of a plan for the manipulation of forest growth through management of the competition for light, nutrients, moisture and control of allelopathic (toxic) effects to promote the production of a nontimber forest plant complex while maintaining a healthy forest ecosystem. The plan will include the following components as a minimum:

1. The objectives of the multi-story cropping enhancement.
2. Maps, images and/or descriptions of the proposed multi-story area.
3. An inventory appropriate to the targeted species of the area to identify trees and understory species necessary to achieve the desired purposes.
4. Listing of management activities that will be used to complete the multi-story cropping such as, but are not limited to, pruning, selective thinning and the introduction of new species to achieve plant diversity or to re-establish native plants.
5. Identification of specific canopy and plant densities in the overstory and understory to achieve the intended purpose(s)

6. The plant community will be diverse to avoid species-specific pests and to enhance wildlife food and habitat.

Adoption Criteria

This enhancement is considered adopted when the developed plan for forest growth manipulation has been implemented according to plan's criteria.

Documentation Requirements

1. Brief written description of the actions taken to enhance the multi-story cropping,
2. Delineations on a map or aerial photo of the areas being treated with multi-story cropping, and
3. Representative digital pictures of the overstory and understory plant community following multi-story cropping management activities.

References

Association for Temperate Agroforestry. 2012. Forest Farming Creates Profit Niches, Conserves Endangered Plants. University of Missouri. Columbia, MO. http://www.aftaweb.org/forest_farming.php

USDA National Agroforestry Center. 1997. Forest Farming: An Agroforestry Practice. Lincoln, NE. http://nac.unl.edu/agroforestrynotes/an07ff01.pdf

USDA National Agroforestry Center. 2012. Working Trees Info-What is Forest Farming. Lincoln, NE. http://nac.unl.edu/Working%20Trees%20Info%20Sheets/WT%20Info%20forest%20farming.pdf

Virginia Polytechnic Institute and State University. 2009. Non-Timber Forest Products. Blacksburg, VA. http://www.sfp.forprod.vt.edu/