

2005 PROGRAM WORK TEAM ANNUAL REPORT FORM
(Please complete items 1, 2 and 3)

1. Full name of your Program Work Team (PWT):

Agroforestry and Private Woodland Management

2. Names, affiliations and e-mail addresses of the PWT Co-Chairs (with an asterisk [*], please indicate the co-chair responsible for finalizing this report):

Louise E. Buck*
Senior Extension Associate
Department of Natural Resources
leb3@cornell.edu

Andrew S. Turner
Executive Director
CCE Greene County
ast4@cornell.edu

3. In your successful PWT petition, you committed your team to:

- Fully engage your member stakeholders, especially externals.
- Address specific statewide program needs.
- Conduct or plan to conduct programs/activities to address those needs.
- Seek and document productive outcomes through evaluation efforts.
- Integrate applied research and extension activities.
- Foster multidisciplinary approaches.
- Explore external sources of support for PWT efforts and programs.

On the next single page and a half only, please identify your PWT's activities, accomplishments, and, most importantly, outcomes and impacts over the last year. PWTs terming as of 9/30/04 (see conveying e-mail message and attachment identifying these) are asked to provide a fuller summary of their outcomes and impacts over the past three years.

PWT co-chairs should do their best to convey their team's progress and accomplishments. Co-chairs are encouraged to choose and include any information that they believe best reflects the productive results of their team's activities and that they wish to share with other PWTs, Program Councils, administration, and the public in general. It is particularly important to include specific programming outcomes and impacts in your report. Please consider and report any changes in audience behavior, skills, or conditions, and what differences occurred in individuals, groups, families, businesses, or communities due to your team's work.

Via the main PWT website (<http://www.cce.cornell.edu/admin/program/pwts>), you can find your PWT's petition and its previously submitted annual reports to use as reference.

Please maintain 1-inch margins on all edges and use a font size no smaller than Arial 11 or Times New Roman 11. Please limit the report to less than 2 pages.

Our PWT aims to address six needs related to the management of forest resources in New York State (see Petition). We have focused on laying the foundation for long term learning about forest farming (FF). The collaborative efforts of PWT members have helped stimulate and support the establishment of four pillars of a statewide forest farming learning system: 1) The Agroforestry Resource Center (ARC) in Greene County, 2) the McDaniel's Nut Grove (MNG) in the Cornell Plantations, 3) the Agroforestry Internship program at the Arnot Forest (Department of Natural Resources), and 4) Forest Farming Learning Communities (FFLCs) of faculty and county extension educators, landowners and entrepreneurs. The program is generating viable new land use practices that landowners in New York and the northeast can employ in their efforts to manage forest lands and agricultural woodlots on a sustainable basis.

Agroforestry Resource Center (ARC) moved forward in significant ways that benefit the efforts of the PWT. Perhaps most notable among its accomplishments this year was recognition by the New York City Watershed Agriculture Council and foresters who implement the Management Assistance Program (MAP) in the Watershed, that the Greene County/ARC ginseng demonstration sites established in the Watershed in 1999 have had important and lasting impacts. Specifically, many of the demonstration plots remain visible and some are thriving. Furthermore, foresters who seek to influence forest owners to develop management plans have found that using ginseng-agroforestry as an entry point has made their task easier and more productive. Further still, landowners who develop forest management plans that have an agroforestry component are far more likely to implement their plans than those who do not. Foresters in the region therefore now see agroforestry as an effective forest management tool, based on evidence gained from the test plots, and reinforced by short courses on agroforestry that some of them have attended at the ARC.

Another notable development at this ARC this year was the retirement of Bob Beyfuss from CCE-Greene. For many years Bob has been the NYS Ginseng Specialist and has been instrumental in creating a culture of agroforestry in the Catskills and beyond. Fortunately, CCE-Green's Marilyn Wyman is well prepared to assume the agroforestry mantle for the ARC, in concert with other staff and colleagues. And Bob expects to remain active and 'on call' as needed to ensure the on-going excellence of the ARC's programs. As usual, Bob was highly productive in the months before he retired – having delivered 13 lectures and workshops on agroforestry through a variety of public, private and civic sponsorships throughout the state and region, some through collaboration with forestry/agroforestry extension programs offered by State Extension Forester Peter Smallidge, MFO Director Gary Goff, the Cornell Maple Team, and county-based extension associations.

The ARC conducted 10 agroforestry classes for 120 participants, held a Ginseng conference for over 600 participants, hosted a visit by US Forest Service personnel to the Agroforestry Demonstrations in the NYC Watershed, hosted the PWT's statewide CSREES-funded mushroom project's planning meeting, participated in the coordination of *The Working Lands: An Agroforestry Sampler* at Cornell University and highlighted the work at the ARC, worked with a permaculture specialist about the integration of this concept into an agroforestry demonstration and hosted a talk by David Jacke – author of *Edible Forest Gardens*. In addition staff at the ARC gave talks, tours and fair displays that highlight agroforestry as a potential component of sustainable forest management from both ecological and economic perspectives, and reached some 1500 people on and off site. The ARC's web address is www.cce.cornell.edu/arc

McDaniel's Nut Grove (MNG) continued to be developed as a teaching and learning forest farm under the leadership of Prof Ken Mudge. Contributions to the expansion of infrastructure, plantings, experiments and demonstrations came from student and faculty participants in Hort/Ntres/CSS 426 (Practicum in Forest Farming), a graduate student who leads the *Cornell Mushroom Collectors, Cultivators, and Connoisseurs* student club and members of the club, a

summer intern, and a graduate student researching the propagation of the fungus known as lions mane (see Mushroom project, below). This year the Practicum also engaged permaculture specialist Steve Gabriel to conduct hands-on classes in woodlot design based on permaculture principles. Further, some of the students participated in a 2+ hour lecture/seminar conducted by D. Jackie, author of *Edible Forest Gardens*. Using these inputs, groups of students created a variety of prospective designs for the future of the MNG which they presented in map and power point formats for future reference. The web address for the MNG is <http://www.hort.cornell.edu/department/faculty/mudge/macnut/>

Arnot Forest: The Arnot Forest provides the principal site for the PWT's CSREES-funded forest mushroom research and extension project entitled *Gourmet and Medicinal Mushroom Production for Forest Farming in the Northeast* for which Prof Mudge provides leadership. The successful 'Camp Mushroom' was repeated for a third time this year where some 25 current and prospective forest mushroom growers learned relevant principles and skills while also contributing their labor to the project. The group inoculated beech logs with multiple isolates of Lions Mane some of which were collected locally, and others that were purchased, for an experiment to evaluate differences in performance. Mudge submitted the final report for the 3-year project at the end of the year, which detailed its findings. The project's comparison of shiitake, oyster and lions mane fungal species grown on oak, red maple, beech, and aspen logs revealed that while red maple and aspen performed poorly, beech supported greater mushroom production than oak for two years in a row, an important finding for prospective mushroom growers who have access to beech as cull wood. These and other findings from the project were extended through a series of workshops and other public events, and can be viewed at the website which the project developed (<http://mushrooms.cals.cornell.edu/index.htm>).

The PWT's Arnot Forest Intern this year, Maddie Dunfee, conducted an experiment to evaluate whether the fungi *Hypogeous*, when inoculated into vegetables, would stimulate and enhance the growth of the veggies as per claims made by commercial supplier of the fungus, *Funji Perfecti*. The experiment did not produce this effect. For further information about the experiment see the mushroom program website, preceding paragraph.

Forest Farming Learning Communities (FFLCs): The FFLC component of the PWT program was not active in 2008, as financial resources were not available. The PWT undertook three other initiatives however, to expand knowledge and learning about agroforestry throughout the state and region. First, we co-organized and co-hosted an innovative weekend program in April on the Cornell campus called *Working Lands: An Agroforestry Sampler*. The event filled 135 Emerson lecture hall with participants who paid some \$95 to attend (\$75.00 for students). Other co-sponsors included RPM Ecosystems LLC, the ARC, the Cornell Ecoagriculture Working Group, the University of Missouri Center for Agroforestry, and the Chemung Canal Trust Company. The program included a variety of lectures, panel discussions and field activities as well as lunch. Information about the Sampler is available at CCE – Community Horticulture on the web.

Second, we applied for and were awarded a \$1,000 grant from CUAES to develop a 'gateway website' that will guide people interested in forest management and agroforestry to programs that are centered at the Cornell campus or in county or multi-county Extension organizations in NYS. The website will be completed during 2009.

Finally, we collaborated with the Cornell Ecoagriculture Working Group (<http://ecoag.cals.cornell.edu/>) to begin the preparation of a multi-media case study on ecoagriculture and local food systems in the Finger Lakes region, for a USDA funded initiative between Cornell's Department of Natural Resources, UC-Berkeley's Center for Sustainable Resource Development and Ecoagriculture Partners -- see www.AgricultureBridge.org. The case will feature forest farming as a component of local food systems and ecoagriculture landscape management in the region. The preparation of the case will continue through 2009.