

2005 PROGRAM WORK TEAM ANNUAL REPORT FORM

Managing Wastes: Composting and Land Application

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The Managing Wastes PWT continues to **engage diverse stakeholders** including government agency personnel who are responsible for managing waste residuals, regulating wastes and fertilizers, assisting the agricultural community and funding waste-related research and outreach; livestock farmers; commercial compost producers; NGOs, private consultants, waste management companies as well as Cornell University Cooperative Extension educators and Cornell faculty and staff from several colleges and departments.

Probably our greatest accomplishment is facilitating the interaction among these players so that the knowledge and needs of each group can be used by others as they make decisions. As a result of our PWT, the NYS Department of Agriculture and Markets has proposed revisions to the rules that address fertilizers to make them compatible with compost production and farmers and Departments of Transportation (DOT) in NJ and NY are implementing composting to manage mortalities. NYS Department of Conservation participation in the PWT provides a direct conduit for farmers and other compost producers to provide suggestions regarding the revision of rules pertaining to the use of residuals on farms and to get clarification on existing rules.

Participation in meetings and projects helped to **reach hundreds of NYS farmers, veterinarians, agency staff, educators, students, composters and others with up-to-date research-based information and also served to help set direction for research, policy and outreach activities**. The PWT played a significant role in **developing two national conferences** (manure management; mortality management) that engaged stakeholders from farmers to government agencies. We continue to use email to facilitate communications and to make **materials available on the WWW** (through the Cornell Waste Management Institute (CWMI) www site at cwmi.css.cornell.edu).

Substantial progress was made on numerous PWT goals including **composting of mortalities and butcher residuals, increasing the diversion of organic wastes from homes through small scale composting and helping farmers produce better composts**.

Protection of the NY City water supply watershed through composting of manure and flesh wastes was enhanced through technical assistance provided to farms and butchers. A demonstration project involving 10 NYS farms and numerous agencies is exploring the potential of **cooperation among farms in the composting of manure as a collaborative enterprise**.

A project has begun that links NYS DOT, CWMI, the Cornell College of Veterinary Medicine, faculty with the workplace health and safety program of the School of Industrial and Labor Relations (ILR) Extension, NYS DEC, NYS DOH and Woods End Research Lab to conduct **research relating to pathogen reduction and outreach to state and local highway, conservation officers and to vets on composting as a tool to manage road-killed animals**.

This project will protect water quality and health and save the state money by improving management of the 25,000 road killed deer that NYSDOT manages annually.

Home and school composting has the potential to divert about 20% of the waste stream from landfills and incinerators. Following PWT discussions, CWMI has worked with NYS DEC, Cornell University Cooperative Extension (CUCE) educators, and the NYS Association for Reduction, Reuse and Recycling to encourage small-scale composting in NYS through the development and posting on the WWW of new materials. Many schools use composting to educate students about waste management and to teach science. Concerns about ensuring that health and safety issues are addressed resulted in collaboration involving CWMI, ILR, NYS DEC, CCE educators and others to produce a fact sheet on school-based composting.

The PWT is successfully working with NYS DAM to **modify fertilizer rules so that compost is not inappropriately regulated**. This is important to the more than 50 NYS livestock farmers who want to sell compost and it promises to be a model for the nation. Currently NYS DEC is considering modifications to the solid waste rules and the PWT is a venue for discussion involving NYS DEC and the compost community. Inconsistencies between the solid waste composting rules and the concentrated animal feeding operation (CAFO) rules are being addressed.

The **use of dried manure solids as dairy barn bedding** is of increasing interest to farmers in NYS. While a common practice in other states such as California, research and outreach is needed in NYS to answer questions about the impact of this practice on herd health and farm economics. Two new collaborative projects involving Cornell University (CWMI and the Vet School) and 5 dairy producers will investigate this practice and provide outreach to other dairy farms.

Enhancing markets for compost is a frequent topic of PWT discussion and use in horticulture is an important potential market. Research and outreach concerning the use of compost in turf maintenance and in landscape construction is reaching hundreds of people responsible for these activities. With turf covering over 3 million acres in NYS, improved management with the use of compost has tremendous impacts.

Assisting compost producers in making quality compost in an environmentally and economically sound process is a PWT goal. A series of fact sheets was developed and posted on the CWMI WWW site.

Development of **“clean soil” standards** by NYS DEC and NYS DOH is mandated under Brownfields legislation in NYS. PWT participants are providing expertise through a NYS Assembly Task Force and through participation in a foundation-funded project to educate the public and provide technical input on draft regulations. These standards have relevance to both clean up of sites that have been contaminated, but also to the use of residuals as soil amendments.

Concerns about soil contamination range from impacts of the use of treated lumber or pesticides to the impact of spills of fuel oil or gasoline. To help address these concerns, a new 3 year CWMI project has begun involving CCE educators across NYS, as well as many faculty and agencies in identifying contaminants of particular concern and in developing guidance materials addressing what to test for, how to test soils and how to interpret test results.

The concept of soil health is gaining increasing emphasis. Recognizing that the addition of residuals to agricultural soils will have an array of impacts on soil chemical, physical and biological properties, a new project has been launched. Involving diverse faculty, the project will investigate the **long-term impacts of sewage sludge and manure on agricultural soil health**.