

## **2004 PROGRAM WORK TEAM ANNUAL REPORT**

### **Managing Wastes: Composting and Land Application PWT**

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The Managing Wastes PWT continues to engage diverse stakeholders including government agency personnel who are responsible for managing wastes, regulating wastes and funding waste-related research and outreach; livestock farmers; commercial compost producers; NGOs and private consultants as well as Cornell Cooperative Extension educators and Cornell faculty and staff. 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 is revising the rules that address fertilizers to make them compatible with compost production. NYS Department of Conservation participation in the PWT provides a direct conduit for compost producers to provide suggestions regarding the revision of rules pertaining to compost.

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. 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](http://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, development of guidelines to assist turf and landscape managers in using compost, helping farmers produce better composts, and land application of sewage sludges. More than 30 State Veterinarians and their associates in NY and in VT and 320 NYS DEC Conservation Officers have learned about managing mortalities through composting. Recognizing NYS expertise, presentations have been made across the US and participation was invited in an EPA-sponsored workshop on mass-mortality management. Development of appropriate NRCS standards for mortality-management at the national and NYS level flowed from the PWT work as did NYS DEC and NYS DOT guidance documents. It has also resulted in a new project linking NYS DOT, CWMI, the Cornell College of Veterinary Medicine, ILR Extension (worker health and safety issues), NYS DEC 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 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 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 Cooperative Extension (CCE) 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 as well as workshops. Many CUCE Associations are increasing their emphasis on this practice. In one county with a vigorous CUCE compost education program, more than 40% of the households are composting, diverting more than 4% of the solid waste stream.

Management of livestock farm manure continues to be a focus. 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.

A potential use of partially composted manure is as dairy barn bedding. A new collaborative project between Cornell University (CWMI and the Vet School) and SUNY Cobleskill will investigate that option and provide outreach to other dairy farms.

Enhancing markets for compost is a frequent topic of PWT discussion and use in horticulture and use in erosion control are important potential markets. As a result of our comments, compost blankets for use in erosion control are now a practice accepted and specified by NYS DEC and NYS DOT is working towards increased use of compost. Research and outreach concerning the use of compost in turf maintenance and in landscape construction is reaching hundreds of people responsible for these activities.

Knowledge regarding the relation of composting practices to compost quality developed through collaborative research involving PWT members resulted in the development of a computer model (Co-Composter) available on the WWW that has been accessed by more than 2000 users, helping them to plan facilities. A series of fact sheets and presentations have informed compost producers about the tradeoffs between various practices and compost qualities.

Development of "clean soil" standards by NYS DEC and NYS DOH is mandated under Brownfields legislation in NYS. PWT participants provided input to these NYS agencies concerning methods for the development of the standards based on current research and have been invited to participate in a NYS Assembly Task Force. These standards have relevance to both clean up of sites that have been contaminated, but also to the use of residuals as soil amendments.

Stakeholder participation in research is being promoted both through the projects discussed above, but also through participation in an EPA project as well as several projects being undertaken by the Water Environment Research Foundation (a national organization that works on sewage sludge and related issues) pertaining to land application of sewage sludges. These represent ground-breaking efforts to truly engage non-scientists in the research process.