

History

Established in 1987, CWMI addresses the environmental and social issues associated with waste management by focusing University resources and capabilities on this pressing economic, environmental and political issue. Through research, outreach and teaching activities, CWMI staff and affiliated researchers and educators work to develop technical solutions to waste management problems and to address broader issues of waste generation and composition, waste reduction, risk management, environmental equity and public decision-making. The focus for such work is on multidisciplinary projects that integrate research and outreach.

Partners and Collaborators

CWMI engages diverse stakeholders including: government agency personnel who are responsible for managing waste residuals, regulating wastes and nutrients, assisting the agricultural community and funding waste-related research and outreach; livestock farmers; compost producers; government agencies; other universities and colleges; NGOs; private consultants and waste management companies; Cornell Cooperative Extension educators, Cornell faculty and departments as well as homeowners, youth and the general public.

Our Impact

Over the last 3 years alone, CWMI has reached over 6 million people through the our web site, resource downloads from eCommons, workshops, conferences and requests through phone and e-mail. We have collaborated with several universities, Cornell departments, Cooperative Extension, private organizations and government agencies at the local, state and national level. Our reach has gone out internationally as well.



Examples of Outreach

- Three 2-day workshops trained 62 people who then educated 1,121 people in 15 states on composting as a means of disposal of livestock mortality;
- As a result of these trainings and many years of teaching and demonstration, most farms, many butchers in NY, VT and PA and over 200 DOT sites in and out of NYS compost carcasses and residuals;
- 450 emergency personnel were educated to respond to mass mortality events;
- In ten roundtables and workshops, 440 people received information to better divert and manage food scrap; and
- Research results on the use of dried manure solids as dairy barn bedding reached 290 farmers and industry leaders in workshops and demonstrations.



Comments from Stakeholders

- From a composter in South Carolina to their local garden blogger: "Cornell Waste Management Institute is the largest, most authoritative source of information on all manner of food, farm and landscape recycling in the country";
- From an attendee of a composting workshop and tour: "Great two days, lots of good people with in-depth knowledge"; and
- From e-mail and telephone queries: "Your e-mail was extremely helpful. Thank you for taking the time to answer our questions." "Thank you so much for this very detailed reply; it will be a great help." "Thank you so much for taking the time to speak with me today. I learned so much from our conversation."

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Cornell Waste Management Institute

CWMI is a program in the Department of Crop and Soil Sciences in the College of Agriculture and Life Sciences at Cornell University serving the public through research, outreach, training, and technical assistance with a focus on organic residuals.

The principles on which CWMI rests are:

- Identifying critical waste management needs through working with stakeholders;
- Building on the strengths of Cornell--its faculty and staff;
- Teamwork and collaboration including on and off-campus colleagues and stakeholders;
- A focus on multidisciplinary work; and
- Integration of research and outreach.



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RESEARCH

Our goal is to find ways to manage waste sustainably. We get closer to sustainable living when connections are made between those that generate “waste products” and others that can use them.

- Research is ongoing to evaluate organic residuals such as those from making paper, processing tobacco and making dog bones to make recommendations about their use as fertilizer replacement, soil conditioners, food or feed, animal bedding, or as biofuels.
- Research on the environmental effects and health and safety issues involved in composting deer killed on the state’s roadways has resulted in composting the more than 75,000 deer killed on highways each year. The resulting product is used to help reduce erosion and grow grass.
- Research on the fate of veterinary pharmaceuticals during carcass composting has helped to answer USDA Animal and Plant Inspection Agency questions about the safety of mortality composting for wildlife and domestic animals
- Research on the re-use of manure (dried manure solids) as a dairy cattle bedding has saved money and reduced the amount of nutrients being spread on farmland.
- Research on soil quality has helped urban gardeners and others to learn about soil contamination, soil testing and how to interpret the results and what best practices to use to keep their soil healthy.



TRAINING

CWMI trains a variety of stakeholders including farmers, veterinarians, State and Federal officials and workers, municipal

solid waste managers and workers, homeowners, college students and secondary and elementary school students in sustainable waste management .

- Train the trainer sessions in Puerto Rico empowered 130 college students, teachers and citizens with the tools to teach waste management in elementary schools, including composting of food scraps, helping to increase the recycling rate in Puerto Rico.



- Compost marketing workshops have helped composters create and market their product to its fullest potential.



- Healthy Soils, Healthy Communities workshops address the questions and concerns of residents, urban gardeners, extension educators and others in the community who are interested in soil health.

- Workshops on carcass composting have helped not only individual farmers, but have been instrumental in environmentally safe disposal after natural and other disasters.



OUTREACH

Outreach materials are designed to strengthen the fundamental understanding of sustainability science and engineering to help achieve more sustainable methods of waste management and improve human well-being.

- Composting at Home: The Green and Brown Alternative: Information to help homeowners and small scale composters close the loop: manage organics on-site, improve soils and grow plants for consumption that will then go through the loop again, achieving sustainable organic residuals management while reducing fossil fuel inputs and converting waste into resources.
- Youth and Teacher Resources: Information designed to help schools learn about and start composting, including curricula in both English and Spanish.
- Soil Quality Resources: Information designed to help foster informed decision making to improve soil quality and reduce possible health risks from exposures to soil contaminants.
- Farm Waste Management: Addresses manure and carcass composting, economics of farm waste management and handling agricultural plastics.



- Compost Facility Map: Making connections between producers of organic residuals and those that can use them, as well as connecting composters with compost users.

