



What's Cooking!

In This Issue...

Annual Meeting	2
Education Committee . . .	3
Shellfish Compost	4
Demonstrations	6
Meetings, Workshops, & Conferences	7

TOP OF THE HEAP

This year is off to a good start with the Board members meeting more often with intent to strengthen the Association and expand its education efforts. There has been a lot of enthusiasm and good things are happening.

In the spirit of our new name change (Composting Association of DEL-MAR-VA), the Board of Directors held a get acquainted session with fellow compost enthusiasts from Maryland. The March 9th meeting was hosted by Marc Tefteau at the Wye Research and Education Center. Good attendance and interest from the Maryland contingent made clear that our choice to reach out to our neighbors will make for a stronger Association. Along the same line, there has been preliminary discussion with some involved in the Virginia compost community. Hopefully we can have all three states in good attendance at our annual meeting (October 5).

I want to thank all those who put forth so much effort during Compost Week and our other events (details inside). This kind of dedication is what makes it possible for our association to educate the public on the benefits of compost, making converts one at a time.

Thanks to Steve Ellis for taking the initiative to organize some compost equipment demonstrations. The demonstrations went well and attracted good attendance. The compost spreader demo seems to have germinated a new effort directed at making equipment for compost spreading available to the landscape industry.

Other good news is the website will be totally revamped over the next couple of months (same web address – www.de-compost.org). This was made possible through a generous grant from the Warrington Foundation which also sponsors layout of our newsletter.

At the annual meeting, we will be nominating candidates for the Board of Directors. We will need at least four vacancies filled and perhaps more. If you or any one you know is interested in serving please contact your local Board member in advance of our August 23rd meeting.

CAD TO HOLD ANNUAL MEETING OCTOBER 5th

New, innovative compost products, impact of nutrient management regulations and national compost quality standards will part of the topics for the Annual Meeting of the Composting Association of Delmarva to be held on Thursday, October 5th from 9 am until 4 pm at the University of Maryland Wye Research and Education Center near Queenstown.

(Continued on page 2)

Have a good summer and remember -
Make Compost The First Amendment To Your
Soil's Constitution.

Sincerely yours,

C. Patrick Condon
President

ANNUAL MEETING

(Continued from page 1)

The annual meeting, cosponsored by University of Maryland Cooperative Extension, will feature three nationally known composting experts. Robert Rynk, formerly of the University of Idaho and now Senior Technical Editor for BioCycle Magazine will talk about "The Search for Better Bugs and Better Mousetraps – Innovations in the Composting Industry". As a member of the Board of Directors of the U.S. Composting Council he will also bring an update on efforts to establish national composting standards. Dr. Pat Millner from the U.S.D.A. Beltsville Agriculture Research Center will discuss public health issues and composting in the afternoon program session. Mr. Herbert Brodie, retired University of Maryland Agricultural Engineer will review approaches to creating value-added compost products also in the afternoon session.

The potential impact on compost markets in Maryland and Delaware from nutrient management regulations will be reviewed by Bill Rorher and Steve Hollenbeck from the Delaware Department of Agriculture and Timothy Pilkowski of the Maryland Department of Agriculture.

Registration for the Annual Meeting of the Composting Association of Delmarva will be \$30 which will include a catered lunch and materials. For additional registration information, please contact K. Marc Tefteau, Regional Extension Specialist at the Wye Research and Education Center at 410.827.8056 or e-mail at kt4@umail.umd.edu.

BETTER COMPOSTING SCHOOL

The University of Maryland, College Park will be offering its 9th Annual Better Composting School from October 25th through the 27th at the Ramada Hotel near Hanover, Maryland. The three day training, sponsored by Maryland Cooperative Extension, and the Departments of Biological Resources Engineering and Natural Resources Sciences and Landscape Architecture at the University of Maryland, will consist of two days of in-class training and one day of an on-site field trip to five different composting facilities in the Baltimore-Washington area. Faculty from the University of Maryland and Maryland Cooperative Extension will be instructors for the course.

Registration fee for the school is \$325 if received by October 20th. For additional information, contact Marc Tefteau at the Wye Research and Education Center at 410.827.8056, the Department of Biological Resources Engineering at 310.405.1198, or check out the Better Composting School Web Site — <http://www.agnr.umd.edu/users/Wye/BetterCompSch.html>

INTERNATIONAL COMPOST AWARENESS WEEK 2000

Olde Dover Days

The Composting Association of Delmarva took advantage of an well-attended affair to extol the benefits of making and using compost. Although celebrated on April 29th this year, a few days before the official compost week began, "Olde Dover Days" provided an ideal forum for the CAD exhibit.

Nestled among various other vendors and information exhibits, the CAD exhibit offered its unique venue. Dot Abbott-Donnelly, with a little help from Maggie Moor-Orth and Steve Rohm, provided information to many, many visitors. Lucky visitors were sent on their way with a Marigold grown in a compost soil blend and a sample of compost. All were furnished with a variety of brochures, compost tips and our spring newsletter. Well over 4000 people are estimated to have passed through our exhibit area. Dover Days was a great way to get the good word about compost out to the public. Hats off to Dot and CAD for a terrific job.

Compost Tour 2000 by Helen S. Waite

In early May, as part of International Compost Awareness Week, the (then) Composting Association of Delmarva organized another successful tour of local composting sites. Early on May 2, a cheerful group of homeowners, compost facility operators and other interested persons boarded an air-conditioned coach at the Blue Hen Mall and Executive Center in Dover, and set off.

First stop was Poplar Hill Research Farm, MD where Dr. Lew Carr demonstrated a small experimental in-vessel composter. Next, we visited New Earth Services, located outside of Hurlock, MD, where Pat Condon composts several kinds of organic composts – blue crab chum, poultry litter, and other experimental mixtures. Pat showed off his recently installed riparian buffers and storm water management ponds. After an excellent box lunch, Steve Ellis led us on a Seaford facilities tour and demonstrated the composting process at Seaford's Wastewater and Treatment Plant. In Georgetown, DE, Bud Malone treated the group to a brief Power Point presentation on some of the projects the University of Delaware is pursuing. Bud showed us some whole bird composters, demonstrating a process poultry growers can use to economically manage their mortalities and produce useful soil amendments, as well.

Thanks to all the participants for your enthusiasm and helpful comments. Thanks also to the operators who allowed us to visit your composting sites to see how it all works close-up. We had a great time!

THE EDUCATION COMMITTEE EXPANDS ITS FOCUS

Education Committee and CAD on the Move

Getting the word out. Sharing what we know about compost. Sharing our enthusiasm. Educating by word and action. Just a few of the ways that the CAD education committee place CAD and compost in the limelight. During the summer of 2000 the CAD exhibit booth and Pat Condon's portable gazebo got a lot of mileage and exposure. In addition to International Compost Awareness Week, CAD made appearances at the Delaware Herb Festival in Dover in May. The display was set up as part of the Plants and Peoples Conference held at Delaware State University. Maggie Moor-Orth staffed both events. The education committee continued to provide samples of compost as well as a plethora of printed and verbal information.

Helen Waite (see Article below) carried the CAD exhibit to Hockessin, Delaware for the Mitchell Farms well attended "Day at the Farm" event. Again compost samples were available for those interested.

The Delaware State Fair seemed like a great event to preach the benefits of compost use and production. Dot Abbott-Donnelly was able to arrange a 3 hour demonstration display in the Agricultural Commodities Exhibit building. Nancy Goggin MC'ed the demonstration with Dot as co-host. Green thumb compost gardener Steve Rohm ensured a fresh supply of compost nourished Marigold Plants and compost samples for distribution. After the demonstration and display, two flats of Marigold plants (with the CAD logo on them) were sent to the Delaware Solid Waste Authority exhibit for featuring as a recycling example and premium for distribution. Thanks to Tom Houska of DSWA for that suggestion. (*Special thanks to Maggie for the use of her green hose for growing the Marigolds.*)

The summer was not over yet and neither was our zeal for showing off our wares at even another popular event. The CAD exhibit was included at Ag-Day at the University of Delaware Ag Research Farm near Hardscrabble in Sussex County, Delaware. A fair size crowd of attendees was on hand and Steve Rohm had his hands full giving out compost samples and our compost enriched Marigold plants to interested visitors. Many questions were ask, hopefully many were answered verbally or with the many information pamphlets on hand for distribution.

Next stop for the CAD exhibit and education committee staffers, the CAD 2000 Conference on October 5th of course. Hope to see you all there. The display may reappear the following weekend at the Coast Day celebration at the University of Delaware Marine Sciences Campus in Lewes.

Composting Display Communicates Awareness at 'Day-On-The-Farm'

by Dot Abbott-Donnelly,

U. of D. Cooperative Extension Renewable Resources

Under the shade of a 'pole' tent located in the hilltop pasture, Helen Waite teamed-up with the Composting Association of Delmarva's display to offer valuable information for all those waiting a wagon-ride around the Mitchell farm. Saturday, June 24, was a hot, but breezy day at Woodside Farm near Hockessin. For five hours, family members hosted an 'open-house' throughout the 75-acre farm for neighbors and friends. Almost 1,200 individuals of all ages roamed around the farm learning about the dairy operation and creamery, connecting sheep to wool handiworks, proper raising of chickens, pasture and hayland management, woodland conservation, the value of milk for bone development, installing child safety seats,

planting pumpkins for a fall harvest, where groceries really come from, and how farmers use animal and plant wastes for compost. The Mitchells compost waste material from the milking parlor and cow holding lots to provide valuable recycled nutrients for their seasonal mum-production field. The CAD display was a 'focal' point at the edge of the mum field. Although the Mitchell family incorporates leaf litter for mulching around the mum pots, farm-supplied compost in a major component added to the growing medium, inside the pots. While hundreds of parents and kids waited for the wagon ride, Helen took the opportunity to educate them on the benefits of composting from a large-scale business operation to their individual backyard efforts. Bags of poultry-litter compost and sewage-treatment-plant compost were given away, along with vital information about CAD, its membership, and composting-in-general.



Helen Waite at Mitchell's Farm 6-24-00

Reprinted with permission

SHELLFISH COMPOST: IS IT GARDENER'S GOLD?

By Gail Kent, Nursery News staff

What is composting? By definition, composting is the microbial breakdown of organic products under natural heat to convert the inputs to compost. If you ask a lay person, it is an area of dirt somewhere far from your house where you can throw out your coffee grounds, egg shells, leftovers and let it stew and steep. When it is done "cooking," you can throw it back on your garden. However, to a professional grower composting is a little more sophisticated and much more serious.

As anyone in the garden supply business knows, home vegetable and flower gardening has increased tremendously over the past several years, yet only 3 percent of organic wastes are being recycled. Additionally, the use of nematicides has been under criticism because of environmental and health concerns.

Compost as a shellfish-based concern

Jeff Holden worked in the seafood industry for many years as a lobsterman and fisherman and moved on to become the owner of Holden Seafood, Portland, ME. In 1993, he started Portland Shellfish, South Portland, Me., producing Jonah crab and processing lobster tails and lobster meat. He became all too familiar with the problems associated with disposal of waste when the Maine Department of Environmental Protection ordered Holden to stop dumping shells and refuse at a small potato farm outside of Portland.

He was not the only one with a problem. Several other shellfish processing companies had been closed out of long-used dumpsites because of environmental concerns. But Holden's background provided a natural evolution for a solution, since he had been using shellfish waste for growing vegetables in his home garden and has observed very positive results.

Bob Chartier, the potato farmer who had been using the waste in his growing, commented he did not need any studies to document the effects of the crab compost. Chartier stated, "Where we were getting 400 (bushels of) potatoes an acre with a regular fertilizer, we got at least 600 bushels with the crab compost. I couldn't get enough of it." Nonetheless, Holden wanted to find out if his composting idea was truly effective.

The Maine Compost Team

Holden contacted the Maine Compost Team, a nationally-known interagency collaboration comprised of a group of researchers who formed a collective that addresses composting issues. The team includes Dr. William Seekins, agricultural researcher, Maine Department of Agriculture; Richard Verville, extension professor, University of Maine Cooperative Extension; George MacDonald, program manager, Waste Management and Recycling, State Planning Office; and Mark King, environmental specialist, Maine Department of Environmental Protection.

From 1996-97, the team worked with the Maine Correctional Center, Windham, ME, to develop a site and format a business plan for composting food wastes. The goal of this effort was to provide career training to inmates while benefiting the community by providing a fertilizer product. Using Holden's own personal experience with the benefits of shellfish waste products, the team took the initiative to research and develop a truly unique composting product.

Creating a recipe

Shellfish are basically all the same: Crustaceans with high lime and high nitrogen content; which makes gardens grow. Shellfish also, have chitin. Although chitin materials are available in the market place, they require high rates of application, which makes it both costly and impractical for use except under conditions such as small garden plots and organic farms. The fact that chitin is present in shellfish makes this mix beneficial without the drawbacks of commercial applications and has been shown to suppress plant parasitic nematode populations and thus, increase plant growth. Products containing chitin, (such as shellfish) also have been used in weight-loss remedies (fat blockers) and in skin grafting, but in composting, chitin becomes a nematicide. The University of Florida conducted a study using tomatoes inoculated with nematodes and found that highly concentrated crab-scrap compost killed more than 90 percent of the parasites.

SHELLFISH COMPOST: IS IT GARDENER'S GOLD? *(Continued)*

The "recipe," created by Dr. Seekins, contains about 50 percent shellfish waste (crab/lobster/shrimp) and 50 percent sawdust. Portland Shellfish grinds the shells at its plant, and Maine sawmills supply the sawdust. The shell/sawdust mix is transported to the prison and mixed with leaves from local communities and with carbon-rich horse bedding from the Maine State Society for the Protection of Animals.

How Good Is It?

What is remarkable about this mixture is that it has no discernible odor (aside from smelling like, rich, fertile soil). Betty yet, research results state: "In one test, all levels of crab scrap compost significantly increased both foliar and root weights of tomatoes and reduced root gall indices when compared to the control treatment.

Numbers of [nematode] eggs/plant and egg masses/plant similarly were reduced significantly by the addition of 10 percent, 20 percent and 100 percent crab scrap compost."

The recommendations from this study state "an effect of crab scrap compost on *M. javanica* reproduction was found at levels as low as 5 percent in a greenhouse test. In two different tests, the 20 percent compost application rate was the lowest level of compost that produced large reductions in root galling and *M. javanica* reproduction."

The process

Gardener's Gold Premium Organic Shellfish Compost is produced with the "windrow" method of composting, the most popular technology currently used in the industry. "Windrow" and "aerated windrow" processing involves constructing, long, low piles of compost (called windrows) that are occasionally turned with equipment to mix the ingredients and enhance the breakdown of materials.

Side Effects

This endeavor has provided environmentally friendly solutions to a variety of issues besides the obvious: what to do with the waste. In conjunction with the Maine Compost Team, Holden's efforts have resulted in:

- Providing job training to prison inmates
- Increasing plant growth while reducing parasitic involvement
- Providing a way for Maine saw mills to get rid of surplus sawdust
- Assisting the community in recycling leaves at no cost (previously the towns paid a disposal fee to landfills)

The Maine Compost Team's education projects have benefited 18 local municipalities, three colleges, eight schools, 15 farmers, the Maine wild blueberry industry, a major New England cider producer, a broiler processor, seafood processors, and Gardener's Gold. The team also created the Maine Cooperative Extension Compost School.

Holden expects Gardener's Gold to be beneficial in just about all growing regions and most soil types. It is periodically tested by the University of Maine Soils and Analysis Laboratory. The benefits of the mixture are applicable to all types of plant growth from vegetables to trees.

The compost will be marketed in bulk to growers and through garden and nursery centers in New England beginning this year. By next year, Holden has plans for expansion, which include more land to increase production, so that he can take this endeavor "as far as it will go."

For more information, contact Gardener's Gold, 110 Dartmouth St., South Portland, ME 04106, (207) 799-9290; e-mail: jdholden1@prodigy.net.v

***The Composting Association of Delmarva
advocates market development to
support composting and environmental
quality on Delmarva.***



NEW FEATURE: DEMONSTRATIONS

Demo # 1

Date: May 11, 2000

Location:

The Woodland Golf Course near Seaford, Delaware

Equipment Demonstrated:

Turfco Meter-Matic III, Top Dresser

Equipment Representative:

Tony Kramlix, Lawn and Golf Supply
Phoenixville, PA (610) 933-5801

Attendees:

Nancy Goggin, DNREC/CAD, Marshall Budin, DEDO,
Robert Schulz, ETD, Dave Baker, Baker Farms,
Steve Hollander, DEDA, C. M. Kohlenberg, Mow-N-Trim,
Bill Calloway, Wolf and Associates, Hanley Orr, Seaford
Driving Range, Jeff Deats, City of Seaford/CAD,
Steve Ellis, City of Seaford/CAD



Demo # 2:

Date: June 1, 2000

Location:

City of Seaford Compost Facility, Seaford, Delaware

Equipment Demonstrated: Morbark 727 Trommel Screen

Equipment Representative: Dan Owen (410) 398-7529

Attendees:

Dan Short, Mayor of Seaford, Dolores Slatcher, Seaford
Town Manager, Ron Breeding, Asst. City Manager,
Grace Peterson, Seaford City Council, Steve Rohm,
DNREC/CAD, Clark White, Allens Poultry, Marshall
Budin, DEDO, Marc Tefteau, University of MD/CAD,
Bill Calloway, Wolf and Associates, Ed Meade, CAD,
Jeff Deats, City of Seaford/CAD, Steve Ellis, City of
Seaford/CAD



Demo # 3:

Date: August 17, 2000

Location: Clean Delaware Farm, Milton, Delaware

Equipment Demonstrated:

Wildcat RHC 6-230 Trommel Screen

Equipment Representative:

Jack Kok, Ingold's Hico Inc., (410) 879-9114

Attendees:

Wayne Hudson, CDI/CAD, Dave Stout, CDI,
Steve Rohm, DNREC/CAD,
Mike Duffy, DE Dept. of Labor



MEETINGS, WORKSHOPS, & CONFERENCES

October 5

Composting Association of Delmarva 5th Annual Meeting and Conference

Location: University of Maryland,
Wye Research & Education Center

Contact: Mark Teffeau

Telephone: 410.827.8056

October 25-27

Better Composting School

Location: Ramada Hotel near Hanover, MD

Contact: Mark Teffeau

Telephone: 410.827.8056

website: www.agnr.umd.edu/users/Wye/BetterCompSch.html

November 12-15

US Composting Council's 10th Annual Conference — Seminars & Annual Meeting

Location: The Renaissance Cleveland Hotel
Tower City Center
24 Public Square
Cleveland, OH 44113

Contact: Mark Teffeau

Telephone: 410.827.8056

CAD Board Members

President

Pat Condon
New Earth Services

Vice-President

Steve Ellis
City of Seaford

Treasurer

Norris Matthews
Conectiv

Secretary

Nancy Goggin, DNREC
Division of Soil & Water

Directors

Tom Houska, DSWA

Al Warner,
Milford, DE

Ed Mead,
Bridgeville, DE

Wayne Hudson
Clean Delaware, Inc.

Helen Waite, Grizzly's

Mark Teffeau,
MD Liaison

What's Cooking! Editor

Steve Rohm, DNREC
Division of Water Resources
89 Kings Highway
Dover, DE 19901
Phone: 302.739.5731
Fax: 302.739.8369
srohms@state.de.us

What's Cooking! Contributors

Pat Condon
New Earth Services

Dot Abbott-Donnelly
University of Delaware
Cooperative Extension

Helen Waite



Composting Association of Delmarva

P.O. Box 320
Milford, DE 19963-0320

Address Correction Requested

Bulk Rate
US Postage
PAID
Permit # 497
Dover, DE
19901