Montgomery Soil Conservation District
18410 Muncaster Road
Derwood MD 20855
301-590-2855


# CONSERVATION MATTERS

*June, 2004 – Issue 3*

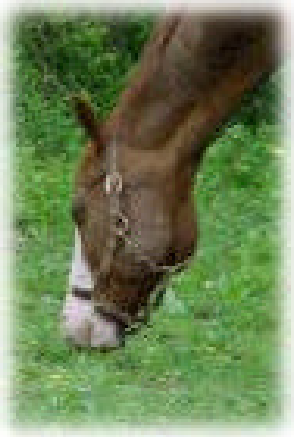

## MSCD 2004 Cooperators Dinner

The Montgomery Soil Conservation District (MSCD) will hold our Cooperators Dinner on Thursday, September 2, 2004 at Butler's Orchard in Germantown. The program is designed to introduce farmers, legislators, and the general public to the important soil and water conservation work being done in Montgomery County. The event will also provide an opportunity to recognize those members of the agricultural community that have made conservation an integral part of their farm operations.

The evening promises to be a fun, interesting and educational experience for all. Butler's Orchard is a well known pick-your-own facility located in the northern part of Montgomery County. Wagon ride tours of the farm will introduce participants to the orchard operations, including Christmas tree plantings, a deer fencing system, and a chemical handling and storage facility. The tours will also highlight a variety of conservation practices that have been implemented on the farm. Pick-your-own orchards and farm markets represent a rapidly expanding sector of agriculture in Montgomery County, and they provide a unique learning experience for citizens.

The program will also focus on recognizing the cooperators in the county that have made a commitment to conservation. Supervisors will present a variety of awards, including Cooperator of the Year, Contribution to Agriculture, and Young Farmer Award. The MSCD will also highlight some of this year's accomplishments, and the programs available to landowners interested in protecting their soil and water resources.

The Cooperators Dinner will be a casual, buffet style feast with a friendly atmosphere. The menu for the event will include pulled pig and barbeque chicken, along with all the usual side dishes. Tours will start about 5:30 p.m. with dinner beginning around 6:15 p.m. The awards and recognition should finish up about 8:30. The MSCD Supervisors and staff hope everyone will take advantage of this opportunity to enjoy a meal with old friends and learn about conservation in Montgomery County. Call Karen Walker at MSCD if you are interested in attending or getting more information.



## Montgomery County Horse Pasture Management Study

The Montgomery Soil Conservation District and the Montgomery County Cooperative Extension Service are looking for a horse farm that would like to cooperate on a pasture management project. We have some grant funding to set up and study a managed grazing trial for horses. If you are interested in participating, please contact J. G. Warfield (MSCD 301-590-2855) or Doug Tregoning (MCES 301-590-2809)

## 2004 Montgomery County Envirothon

The Montgomery Soil Conservation District sponsored our 15th annual Envirothon training program and competition in April and May of this year. Over 120 high school students from 21 teams participated this year. The county Envirothon program is becoming more competitive every year. The point spread between the top ten teams was very close, which translates into some very good teams.

This year's champion, for the third year in a row, was the Burly Gorillas from Montgomery Blair High School. This team has maintained their champion status over the years even though some of the faces have changed. The second place team was a team called Dead Last, also from Montgomery Blair High School. Their name obviously does not reflect their performance at the county competition this year. The third place team was the Quarks, also from Montgomery Blair High School.

The Burly Gorillas now advance to the state level, representing Montgomery County at the State Envirothon competition. If they win the state competition like they did last year, they will represent the state of Maryland at the International competition held in West Virginia this summer.

Our extensive training program has placed Montgomery County in the top tier at the state level every year. The Envirothon training day is a comprehensive educational experience for the students, and it includes presentations by resource professionals from a variety of conservation agencies. The teams learn to divide the responsibility of mastering the large quantity of material by having the five team members specialize in certain areas of the competition.

## Fill on Agricultural Land

There has been a tremendous amount of fill dirt moving around Montgomery County lately. The development that is taking place in this region is generating huge amounts of this material, and with the movement of fill, many landowners have been approached about filling certain areas on their property. Please, before you accept fill, consider the possible ramifications of your decision.

Fill dirt that moves off of a developing site must go to a site that has an approved sediment control plan and an approved storm water management plan. This obviously represents a substantial cost to the site developer or excavator. It may be considerably cheaper for them to encourage a farm owner to accept and utilize the fill material. However, if a landowner accepts the fill material, he or she must possess a sediment control permit from Montgomery County. This includes a sediment control plan and possibly a storm water management plan for the site. If one is accepting fill material without the proper permits and plans, that individual may be subject to a fine, may be required to obtain all permits at considerable expense, and may be required to remove all of the fill material and truck it off of his or her farm. These actions can make "Free Fill" quite expensive!

**Development Sites in Montgomery County are producing a tremendous amount of fill dirt**

Under some circumstances a MSCD cooperator may accept fill as a construction component of an agricultural best management practice (BMP). This must be called for in the BMP

design and documented in the soil conservation plan developed for the farm. Minor fill sites that are less than 5000 sq. ft. may be permitted. Therefore, it is important to contact the MSCD or the Montgomery County Department of Permitting Services prior to importing any fill onto your farm. Only normal and customary agricultural BMPs are eligible for this exemption. We do not consider filling and leveling land to be a normal and customary agricultural best management practice. Therefore if you have an opportunity to receive "free fill" to fill and level off some area of your farm, please remember to contact MSCD at 301-590-2855 or the Montgomery County Department of Permitting Services at 240-777-6320 for permit information.

## New Law for Horse Operations

The Montgomery County Council recently passed regulations that will affect horse owners in the County. In accordance with Zoning Text Amendment 03-21 the following new regulations pertain to horse operations:

> "Any equestrian facility that keeps or boards more than (ten) 10 horses must meet all nutrient management, water quality and soil conservation standards of the County and State. A nutrient management plan prepared by a qualified professional and a soil conservation and water quality plan prepared by the Montgomery Soil Conservation District..."

The law goes on to say that proof of the Soil Conservation Water Quality Plan (SCWQP) must be submitted to the county. In addition, the new regulation has provisions related to the size of events equestrian facilities can hold, minimum number of acres per horse, and setbacks from property boundaries.

The purpose of a Soil Conservation and Water Quality Plan (SCWQP) is to reduce soil erosion and water contamination. A well developed plan will improve the appearance and value of the farm, promote animal health, and reduce environmental stress. The Montgomery Soil Conservation District (MSCD) can prepare a SCWQP for landowners or operators interested in land conservation. The SCWQP is done by the MSCD staff under the technical supervision of USDA District Conservationist, J.G. Warfield. Below are the recommended steps you can use to start the process:

1. Contact the MSCD at 301/590-2855 to request a plan.
2. An MSCD conservation planner will then visit the farm to understand how the operation functions, and establish the objectives and needs of the operator.
3. The conservation planner will inventory the property for natural resources and areas of concern.
4. An aerial photograph of the property is composed to calculate acres of fields and locate areas of concern.
5. A list of Best Management Practices (BMPs) will be recommended to the operator.
6. Operator and conservation planner discuss options and timetable for implementation of plan.
7. Plan is reviewed by District Conservationist.
8. Plan is signed by operator.
9. Plan is presented to the Montgomery Soil Conservation District Board of Supervisors for approval.
10. A copy of the signed conservation plan is given to operator.

A Nutrient Management Plan (NMP) is a Best Management Practice that is separate and different from the SCWQP. The NMP consists of taking soil samples of a specific area to determine soil productivity and management guidelines. Also addressed are issues of manure storage and usage. A NMP is required by state law for any operation that has 8 or more animals (including horses) or has income of $2,500 or more per year. This law is administered and enforced by the Maryland Department of Agriculture.

Other BMPs for equestrian operations are watering troughs, stream fencing, stream crossings, manure storage facilities, heavy use areas and prescribed grazing, just to name a few. Introduction of BMPs to the farm operation should result in improved environmental conditions.

With the help of your soil conservation district, you can best evaluate your management needs and design a SCWQP that fits your operation.

# Managing Farm Waste Through Composting

**A Composting operation showing a soil cement pad and grass buffer for run-off control**

Composting is a process that utilizes micro-organisms to convert raw materials into a soil like material called compost. Compost is an excellent soil amendment for home gardens and farm fields alike. Many farm "waste" materials are well suited for composting. Here in Montgomery County, horse waste, consisting of both manure and bedding, is worthy of consideration for composting. The combination of manure and bedding when mixed together have many of the characteristics needed for successful composting. Proper moisture level and carbon to nitrogen ratio are important, as are the stackable properties. When placed in piles of the proper dimension and periodically turned, a high quality compost will develop in a 3-6 month time period. In addition, sawdust, a common bedding material used in horse operations, can tie up nitrogen if applied directly to cropland or pasture land. This lowers the available nitrogen for plants and necessitates the application of additional nitrogen for proper soil fertility. When sawdust is properly composted this is no longer a problem.

The basic components needed for a good compost operation start with having a dedicated area that is large enough and easily accessible in all types of weather. A typical operation with 20 horses housed in stalls and bedded with sawdust or straw would require about 1 acre. Included in this would be an area for active composting, the storage of raw materials, a place to cure the compost, as well as a vegetated runoff treatment filter strip. A runoff impoundment downstream from the site may also be needed. The site should be gently sloping with a 3%-5% grade and free of a water table within 4 ft. of the compost pad surface. Offsite runoff from uphill should be diverted around the site with a graded earth berm / diversion channel. This should be sized to handle the amount of runoff that it receives; MSCD can design this for you. One variable for the size of the facility would be the type of equipment used for pile access and turning. A specialized compost pile turner allows windrow piles to be spaced as close as 5 ft. apart. Where as a front-end loader would require 20 ft., or more, depending on its size. Consideration should also be given to the prevailing winds and whether houses are downwind from the compost area.

The site itself needs some kind of hardened surface to provide access during wet periods. On some soils, simply removing the top soil and compacting the subsoil will do. Other sites will require more extensive actions such as installing gravel, concrete or lime stabilized soil.

The next step in the process is to build the piles. Windrows are the most popular pile type when composting larger amounts of materials. They are easy to build as well as turn with a farm tractor equipped with a front-end loader. A good size for windrows is 12-16 ft. at the base and 6-8 ft. high. Piles are oriented up and down hill so they won't trap runoff water. The compost "recipe" is an important part of pile building. Generally a 30:1 ratio of carbon to nitrogen is required. (Carbon materials are generally brown such as sawdust, or other dead plant matter. Nitrogen materials are generally more green, freshly cut grass or hay and fresh manure.) Too much carbon and the piles take a longer time to break down and compost; too much nitrogen and the piles will become anaerobic and give off strong ammonia odors. Typically, the combination of horse manure and bedding has the proper carbon/nitrogen ratio needed for composting.

Correct moisture and oxygen levels are also important considerations. One handy guide for proper moisture level estimation is to squeeze a handful of the mixed material. This should cause your hands to become moist with just a few drops of water leaving. Proper oxygen levels usually require physically turning the pile. However, horse manure with sawdust or hay added to it generally has the consistency that allows air to circulate through the pile with natural convection. The pile will still need to be turned every 10-14 days; this will insure composting of the whole pile but is still less critical than with other materials. The piles or windrows should be built parallel to the slope so as not to

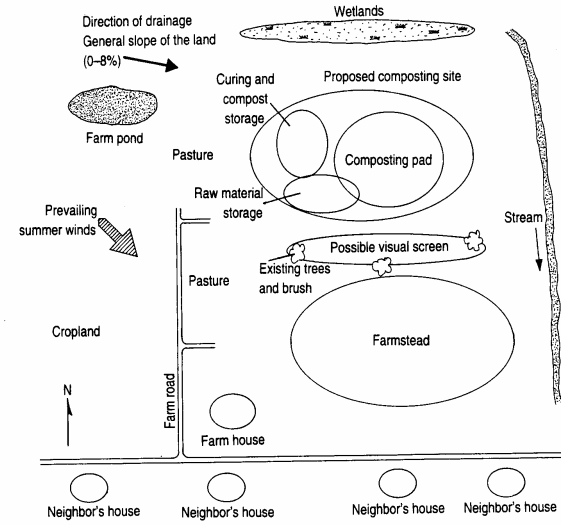
pond water and allow runoff to flow down hill to the grass filter strip. The top of the pile should be rounded or trapezoidal so that it will shed rainfall off the pile.

Once built, the pile will slowly heat up. After 24-48 hours it can reach temperatures in excess of 150 degree's. This is beneficial; it helps to speed up the compost process and is hot enough to kill weed seeds and disease pathogens. The pile will then slowly cool off over the next week or two. After cooling down to 90 degrees it is time to turn the pile. Again the front end loader handles this process well. The pile will then heat back up, usually to a lower temperature than the previous cycle. After going through 4-5 heating/cooling cycles the active compost process is complete. The material is then moved to piles and cured for an additional 3 months after which it is ready to be used. Finished or uncured compost can also be used to build new piles mixing with the raw materials.


**Skid loader used for compost pile management**

The final product is less than 50% the mass of the precomposted material. Making it easier to land apply or incorporate into the garden than the original products.

Proper composting is a learning process. It is recommended to read about it and start small before attempting it on a large scale. The State of Maryland also operates the "Better Composting School" of which attendance is required for all large scale compost operations in the State. Permits may also be required for some composting facilities, depending on the size of the operation. Finally, other methods of composting than discussed above might be more appropriate for your situation. Feel free to contact the Montgomery Soil Conservation District to discuss your site with us. We can also assist with site selection, sizing, layout, surface treatment and proper runoff treatment.




Credits:

Steve Darcy – Prince Georges County Soil Conservation District Resource Conservation Planner and "On Farm Composter" , Thanks for the Photo's and other information

On Farm Composting Handbook: NRAWS-54
Northeast Regional Agricultural Engineering Service / Cooperative Extension Service
152 Riley-Robb Hall
Ithica, NY 14853-5701
For general composting info and site layout schematic

Additional resources for composting information:

Better Composting School, University of MD College Park
Contact Don Lewis (410)841-5959
Field Guide to Composting Use

The Composting Council
114 South Pitt Street
Alexandria, VA 22314 - Telephone – (703) 739-2401

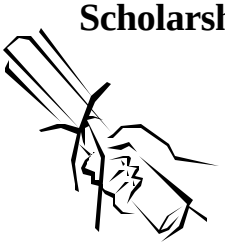
Composting Horse Manure, N.C. State University Cooperative Extension Service
http://www.ces.ncsu.edu/copubs/ag/livestock/horse/001/

Composting Horse Manure in Static Windrows: Passively Aerated Windrow Method
Colorado State University Extension Service
http://www.ext.colostate.edu/pubs/livestk/01226.html

On Farm Composting: Economics ( a bibliography maintained by) Alberta Food and rural development
http://www.agric.gov.ab.ca/sustain/compost/economics.html

The Horse Owner's Guide to Composting by Steven Wisbaum
Prepared for: Otter Creek Natural Resources Conservation District
www.uvm.edu/extension/publications/horses/horsemanurecompost.pdf

## Robert T. Mangum Memorial Scholarship



The Montgomery County Farm Bureau, Inc. is pleased to announce The Robert T. Mangum Memorial Scholarship. Montgomery County Farm Bureau, Inc. has established "The Robert T. Mangum Memorial Scholarship Fund" to honor Mr. Mangum for his dedicated service to the community and his commitment to education. This scholarship is limited to Montgomery County residents. The $2,000.00 scholarship will be awarded to an undergraduate or graduate student in a floriculture, horticulture, or plant science curriculum in a two-year or four-year educational institution who meets the criteria for the scholarship.

Mr. Robert T. Mangum was involved with Montgomery County Farm Bureau for many years and served on the Board of Directors. Mr. Mangum is known as an innovative pioneer in agri-business. He began his career in 1957 when he purchased Bell Flowers in Silver Spring. He expanded his floral operations and became one of the first in the country to successfully develop an interior landscape business, "Creative Plantings", eventually serving over 2,000 clients from shopping malls to fine hotels in the Washington-Baltimore area. He started Bell Nursery, a greenhouse operation based in Burtonsville, Maryland in the late 1970s.

Montgomery County Farm Bureau, Inc. is accepting donations for The Robert T. Mangum Memorial Scholarship Fund. These donations are tax deductible. Checks should be made out to Montgomery County Farm Bureau, Inc. and sent to Montgomery County Farm Bureau, Inc. 24110 Laytonsville Road, Gaithersburg, Maryland 20882.

For a scholarship application, and/or information, please contact Mrs. Carolyn Lechlider at 301-253-1501. Completed applications must be sent to Montgomery County Farm Bureau, Inc., 24110 Laytonsville Road, Gaithersburg, Maryland 20882 by August 25, 2004. The scholarship winner will be notified by mail in September and presented by the Mangum Family at the Montgomery County Farm Bureau, Inc. Annual meeting in November.

## Welcome Noelia

Please welcome Noelia Velázquez who is working with Montgomery Soil Conservation District as a USDA-NRCS summer intern. Noelia is from Puerto Rico and is studying to become an agronomist. She is scheduled to graduate in December 2004 from the University of Puerto Rico and is a welcome addition to our staff.

## Farm Estate Planning Workshops

Maryland Cooperative Extension and the Maryland Department of Agriculture will co-sponsor two regional estate planning workshops for agribusiness owners from 9:00 a.m. to 3:00 p.m. on Tuesday, August 24 (Easton area) and Wednesday, August 25 (Mt. Airy area). Keynote speaker, Mike Sciabarrasi from The University of New Hampshire, will discuss estate planning basics. Other speakers will discuss farm finances as related to estate planning, agricultural land preservation, distribution of non-titled property and effective communication among family members. Montgomery County residents may contact Doug Tregoning (301-590-2809) or Susan Morris (301-590-2811) to request a brochure or for further information. Other MD residents may contact their local Cooperative Extension offices for details.

## Nominations for MSCD Awards

Nominations are now being accepted for the MSCD Awards to be presented at the 2004 Cooperators Dinner. If you know of someone deserving of the Cooperator of the Year, Young Farmer of the Year, or Contribution to Agriculture, please contact MSCD for a nomination form. Call 301-590-2855 or use the form at the right.

**Montgomery Soil Conservation District**
**18410 Muncaster Road**
**Derwood, MD 20855-1421**

**Postage is required**

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*(Please tri-fold, seal and return)*

## Let Us Know If We Can Help You!

The Montgomery Soil Conservation District provides technical assistance for a variety of conservation practices free of charge. In addition, the Maryland Agricultural Cost-Share Program (MACS) may pay up to 87.5% of the installation cost of these practices for qualifying landowners:

| | |
|---|---|
| _____Waste Storage | _____Grassed Waterway |
| _____Riparian Buffer | _____Winter Cover Crop |
| _____Diversion | _____Field Border |
| _____Heavy Use Area Protection | _____Filter Strip |
| _____Roof Runoff Mgt System | _____Stream Fencing |
| _____Trough or Tank | _____Strip Cropping |
| _____Nutrient Mgt Consultant | _____Stream Crossing |
| _____Spring Development | _____Critical Area Planting |

_____Information on nominating someone for the 2004 MSCD Awards

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If you would like to see if you qualify for cost share, want more information on these or other conservation practices, need help with developing a conservation plan for your property or updating an old plan, please mail or fax this form to us and we will contact you.

Name _____

Address _____

_____

Phone _____
Fax to 301-590-2849

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**Derwood, MD 20855-1421**
**Phone: 301-590-2855**
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**Montgomery Soil Conservation District**

**Staff**
David C. Plummer, District Manager
J.G. Warfield, District Conservationist
Karen Walker, Administrative Aide
Brandy King, Soil Conservationist
Paul Meyer, Soil Conservation Technician
Brian Taylor, Resource Conservationist
Eddie Franceschi, Conservation Planner III
Equine Outreach Specialist, Vacant (SCD)

**MSCD Board of Supervisors**

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Robert Butz, Vice Chair
Wade F. Butler, Treasurer
Eric Spates, Member
Robert Stabler, Member

***The Montgomery Soil Conservation District (MSCD) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status.***

***For information or to be included on the mailing list, call 301-590-2855***