



# Annual Report Issue!

## The Harford Resource

A Publication of the Harford Soil Conservation District

VOLUME 1, ISSUE 4

JANUARY 1, 2018

2205 Commerce Road  
Suite C  
Forest Hill, MD 21050

(410) 838 - 6181  
[www.harfordscd.org](http://www.harfordscd.org)

### UPCOMING EVENTS

**January 10**

Harford SCD  
Tentative Moving Day

**January 17**

Board of Supervisors  
Meeting

**January 17**

Farm Succession Planning  
Workshop

**February 7**

MASCD Board Meeting in  
Annapolis

**February 8**

MASCD Legislative Day in  
Annapolis

**February 13**

Mid-Winter Agronomy  
Meeting

**March 21**

Envirothon  
Spring Workshop

### If you would like to:

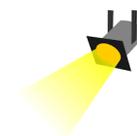
- Receive a digital version of this newsletter or
- Would like to submit an article or
- Have an idea for an article...

Please contact the Editor,  
**Leslie Zink**, at  
[leslie.zink@maryland.gov](mailto:leslie.zink@maryland.gov)



## Best Management Practices Spotlight: Agrichemical Handling Facility

By Eric Webberking



The handling of agricultural chemicals on the Farm creates the risk of unsafe working conditions, exposure to hazardous materials, and polluting groundwater, surface water, and soil. Constructing an Agrichemical Handling Facility greatly reduces these risks by providing a secure, contained, and controlled area for storing and working with pesticides and fertilizers.

A facility useful for Operators growing field and specialty crops may include the following:

- An enclosed structure large and tall enough to accommodate spray equipment, trucks and trailers.
- A secure space for storing Ag chemicals in bulk tanks as well as Rinsate tanks and pumps.
- A secure room within the structure for storing packaged materials, mixing and measuring tools, and safety items and supplies used at the facility.
- A lane for trucks delivering materials to the facility, or taking materials out to the field.
- Adequate working space for pumping, mixing and filling tanks and Sprayers. An elevated mixing platform may be useful.
- Safety devices such as an Eyewash Station, Fire Extinguishers, adequate lighting, and a water supply at the facility.

Specific features are designed into the facility:

- A Roof of adequate height and span over the structure.
- Solid Walls with accesses through a "Man Door" and Large Roll-Up Doors – often at each end of the building to allow "drive through" convenience for Sprayers and trucks. All doors must have locks.
- A chemical resistant concrete floor, designed to carry the weight of machinery and large tanks full of liquids.
- A self contained design; curbs around the perimeter, a floor sloping to a "Sump Pit" in the center of the facility. No pipes, electrical conduit, drains, or structural posts may pass through the floor, curbs, or sump pit. Any water supply line must have anti-syphon and back-flow devices installed.
- Signs must be posted in full view of visitors and workers, describing the hazards involved with activities carried out within and around the facility.
- Permanent and stable surfaced lanes accessing the facility; adequate drainage swales, and a Roof Runoff system of gutters, spouting and pipe outlets.

Please be aware that all construction must be according to a plan approved by the Natural Resource Conservation Service (NRCS), particularly if any cost share funding is involved. All construction must also meet any Federal, State, or Local laws.

For more information concerning technical and funding assistance toward an  
**Agrichemical Handling Facility**,  
please contact the Harford Soil Conservation District and NRCS at **(410) 838-6181, Ext. 3**.



# 2017 Annual Report

## Agricultural Assistance



Best Management Practices (BMP's)	
Access Road	100 Feet
Agrichemical Handling Facility	1
Cover Crop (Fall Certification)	13,400.8 Acres
Critical Area Plantings	1.2 Acres
Diversion	75 Feet
Fencing for Stream Protection	7,342 Feet
Grade Stabilization Structures	20
Grassed Waterway	1.9 Acres
Heavy Use Area Protection	.2 Acres
Lined Waterway or Outlet	75 Feet
Livestock Pipeline	716 Feet
Non Streamside Fencing	256 Feet
Riparian Forest Buffers	12.7 Acres
Roof Runoff System	1 Unit
Shallow Water Development	3 Acres
Spring Development	1
Stream Crossings	4
Streambank Protection	4,420 Feet
Subsurface Drain	435 Feet
Underground Outlet	418 Feet
Vegetated Treatment Area	.1 Acre
Waste Storage Facility	1
Water Control Structures	4
Watering Facilities	4
Wetland Restoration	.6 Acres

## Urban Assistance

### Sediment and Erosion Control Plans

Reviewed	280
Approved	119
Total Acres	1,615.7

### Forest Harvest Plans

Approved	30
Acres Disturbed	14
Acres Harvested	346.3



### Secured Cost Share Funding

Department of Natural Resources (DNR) Grants	\$2,402,340.01
Conservation Reserve Enhancement Program (CREP)	\$7,640.00
Environmental Quality Incentive Program (EQIP)	\$335,734.01
Maryland Agricultural Cost-Share Program (MACS)	\$84,309.00

### Outreach Events

Aberdeen Proving Ground Enviro-Fair
Agriculture Night at Ripken Stadium
Envirothon
Harford County Celebration of Agriculture
Maryland Association of Soil Conservation Districts Coloring Contest



## Meet Patrick Jones ...



### Engineering Associate, Harford Soil Conservation District

Patrick Jones is the District's sole Engineering Associate for urban development. He reviews all plans dealing with residential, commercial, and industrial development in Harford County. The District is responsible for reviewing the integrated Stormwater Management, and Erosion and Sediment Control Plans required for all large scale development projects in the county, and the three municipalities of Aberdeen, Bel Air, and Havre de Grace.

Patrick started with the District in 1989. Although not as visible to the public as some of our other staff, he is an integral part of the District's mission. Patrick interacts with landowners, developers, engineers, along with State and Local agencies to conduct the reviews of 30 to 40 plans each month. These plans can range from preliminary, to integrated Stormwater Management, to final Erosion and Sediment Control.

In addition to his duties as plan reviewer, Patrick represents the District on the county's Development Advisory Committee. This committee insures that any development in Harford County complies with all Local, State, and Federal guidelines.

Patrick is also a Coordinator for the District's Envirothon program. Sponsored by the District, the Envirothon program is a fun and exciting way for High School students to learn about the natural resources of Maryland. Patrick is involved with scheduling events, arranging speakers and presenters, and proctoring the competition exams. The Envirothon is part of a broad-based educational outreach program that the District uses to promote the wise use of our natural resources.



For more information visit  
[www.envirothon.org](http://www.envirothon.org)

## A Tax Break for Farmers

The **Maryland Income Tax Subtraction Modification for Conservation Equipment** helps farmers offset costs associated with buying certain types of conservation equipment to control soil erosion, manage nutrients and protect water quality in streams, rivers and the Chesapeake Bay. The subtraction modification allows farmers to subtract eligible equipment purchases from taxable income on Maryland individual and corporate tax returns.

### Guidelines

A farmer is allowed a subtraction on his/her Maryland Tax Return equal to 100 percent of the cost of buying and installing conservation tillage equipment, liquid manure injection equipment, poultry or livestock manure spreading equipment, global positioning devices, and integrated optical sensing and nutrient application systems. Vertical tillage equipment used to incorporate livestock manure or poultry litter is eligible for a subtraction credit of 50 percent of its cost. The following rules apply:

- The equipment must have a useful life of four years.
- The taxpayer must own the equipment at least three years after the taxable year in which the subtraction is made.
- If the subtraction exceeds the Maryland taxable income, any excess may be used in succeeding tax years, not to exceed five.
- A taxpayer must submit a form, and signed and dated receipt of the equipment purchase to the local soil conservation district and the Maryland Department of Agriculture.

Pictured below are some examples of eligible equipment.

For a complete list and more information on the *Maryland Income Tax Subtraction Modification for Conservation Equipment*, visit  
[http://mda.maryland.gov/resource\\_conservation/Documents/taxsubtraction.pdf](http://mda.maryland.gov/resource_conservation/Documents/taxsubtraction.pdf)



## Agricultural Nutrient Management Program



### Maryland Winter Application Restrictions

The Maryland Department of Agriculture (MDA) is reminding operators that the application of nutrient sources is restricted statewide during the winter application period starting **December 16 through February 28**. All stackable organic sources including on-farm generated and imported sources (i.e. poultry litter, spent mushroom soil, compost, imported manure, etc.) must be stored in available storage structures on site first, followed by temporary field stockpiling, if storage structures are at capacity. The stockpiling of these materials must follow the stockpiling guidance contained in the Maryland Nutrient Management Manual (NM Manual) under the modified 2016 Nutrient Application Requirements.

Liquid manure sources generated on the farm must be stored in available storage structures through the winter period. An emergency provision in the modified regulations allows MDA to work with farmers to prevent overflow from storage structures during the winter period. Under these circumstances, farmers will need to consult with their regional MDA Nutrient Management Specialist for liquid manure application guidance. A 100-foot setback from surface waters is required for any emergency application during the winter. Field conditions for winter application must consider vegetative cover, small grain crops, and established hay fields and pastures along with restrictions concerning soil saturation, when snow is greater than one inch, or hard frozen ground is greater than 2 inches.

The prohibition against making a winter application does not apply to a liquid nutrient source that originates from a dairy or livestock operation with less than 50 animal units until February 28, 2020. However, the emergency provision for winter application of a liquid nutrient source generated on the farm also applies currently to these operations with 50 animal units or less. Farmers in this category will need to consult with their regional MDA nutrient management specialist, adhere to a 100-foot setback from surface waters, and consider the crop cover and ground conditions prior to making application.

Farmers will need to contact their nutrient management consultant to have their current plan amended for winter fertility application rates and deductions from their spring fertility application rates for the crops applied on. Farmers challenged with the inability to avoid liquid manure applications during the winter are required to enter into agreement of intent with the Soil Conservation District and evaluate winter storage management options for implementation to their operation. Farmers may begin applications for all organic sources beginning March 1, provided that the field conditions are suitable (i.e. soil saturation, snow, and hard-frozen ground limitations).

Inorganic fertilizer sources are also restricted during the winter application restriction period with the exception of certain situations. For small grains and perennial forage crops, nitrogen may be applied at green-up when tilling begins as recommended in the NM Manual. Certain nutrients may be applied for greenhouse production and for other vegetable and small fruit crops as listed in the NM Manual. The restriction on the application of chemical fertilizers during the winter also does not apply to potash or liming materials. Farmers may begin applications for all inorganic sources beginning March 1, provided that the field conditions are suitable (i.e. soil saturation, snow, and hard-frozen ground limitations).

***For more information, contact your regional MDA Nutrient Management Specialist or MDA's Nutrient Management Program at (410) 841-5959.***

***You can also visit [mda.maryland.gov](http://mda.maryland.gov).***

# Student's Corner



## The Hive is Buzzing at North Harford High

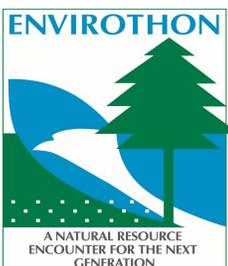
By Laura O'Leary, Science Department  
North Harford High School



North Harford High School's newly granted bee hive is doing very well making and capping an abundance of brood and storing plenty of honey for it's resident bees! A local, Harford County swarm was rescued by bee wrangler, Mr. Dennis Hertzog of the Susquehanna Beekeepers Association, and transferred to North Harford on May 28<sup>th</sup> to acclimate to their new home. Bees were transferred to their permanent enclosure June 7<sup>th</sup> under the expertise of senior, Gracie Goetz, Susquehanna Beekeepers Association's Young Beekeeper Grant recipient from 2016, who continues to care for and do research on the North Harford High School (NHHS) bees and her own hives. The NHHS hive boxes, granted through the Young Beekeepers Grant, were painted by the NHHS Art Guild. This bee hive will be used for student research, exploration and experimentation. North Harford High School is very grateful for the collaboration with the Susquehanna Beekeepers Association and hopes to educate future generations about the importance of pollinators and the wonders of raising honey bees.



For more information on the  
Susquehanna Beekeepers Association  
visit: [www.susquehannabeekeepers.com](http://www.susquehannabeekeepers.com)



The NCF-Envirothon is an annual competition for high school-aged students conducted over five consecutive days every summer during July or August. To expose students to diverse environmental issues, ecosystems, and topography the North American Envirothon is hosted in a different location each year. The 2018 NCF-Envirothon competition will be held at:

*Idaho State University  
Pocatello, Idaho  
July 22 - July 26, 2018*

**The 2018 5th Topic is "Western Rangeland Management: Balancing Diverse Views":**

Rangelands comprise more than 40% of the total productive land base in the western U.S. Rangelands sustain an abundance of forage for both livestock and wildlife, as well as providing aesthetic beauty enjoyed by many. Rangeland resources are a critically important ecosystem component of the western U.S. landscape and are a vital economic factor for many agricultural producers.

*For more information, or if you are a High School and are interested in participating in the competition, visit [www.envirothon.org](http://www.envirothon.org).*



# Planting Live Willow Stakes for Streambank Stabilization

By Jackie Koehn, Ecotone Inc.

## Introduction

A variety of land use changes to the natural environment can often lead to unhealthy streams. By removing the riparian buffer and plants or forest located along the stream's floodplain, and by increasing the flow of water from impervious surfaces, streambanks often become bare. Lack of strong root mass in the soil can lead to excessive streambank erosion where plants, roots, and soil particles are more likely to wash away during high water events, heavy rain, or rapid snow melt. This leads to a number of undesirable results including nutrient and sediment pollution in the water, loss of land, and deeply incised streams.



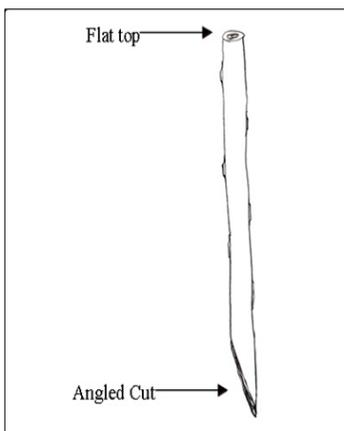
*Exposed and eroding streambanks can be restored and stabilized through the practice of live staking.*

Planting live stakes is one of a number of practices that can reestablish the riparian buffer along impaired streams to protect and stabilize their banks, thus improving water quality. Live stakes are cuttings from certain native tree and shrub species which will grow new plants when planted into moist soil. It is a sustainable practice that has a low cost and is a solution that will become fortified over time as the root network grows.

## Harvesting

Live stakes can be purchased from some wholesale nurseries and can also be harvested directly from trees already on your property. Some of the best native species to use for live stakes are Black Willow (*Salix nigra*) and Pussy Willow (*Salix bicolor*). These shrubs have strong root systems to stabilize banks and are naturally found along streams. Live stakes, like other plants, should be planted in areas with suitable soils, moisture, and sunlight.

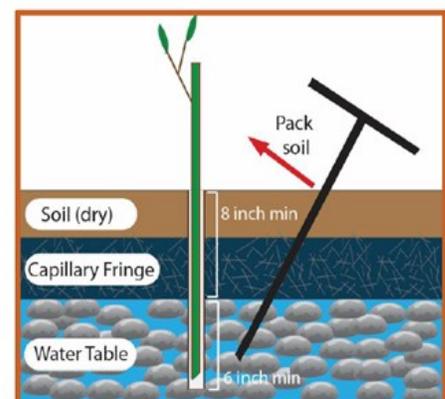
For best results, live stakes should be harvested and planted while the parent plant is dormant in late October until the first frost, or in the spring before plants start to leaf-out. To harvest live stakes, cut branches that are at least 2 years old and roughly 1/2 to 1 & 1/2 inches in diameter (some thinner widths may be successful as well). Know the depth of the water table to cut appropriate length of live stakes. Stakes should reach at least 6 inches into the water table.



*Image Credit:*

*The Pennsylvania State Extension*

Make a straight cut at the narrow end of the branch (toward the tip of the branch). At the thicker end (toward the trunk) cut the branch at an angle, so that it makes a point. This way you will know which end is up and it will also be easier to drive the stakes into the ground. If the wrong end of the branch is put in the ground the stake will die. If you are collecting a large number of stakes, drop your cuttings into a bucket of water as you work to keep them from drying out.

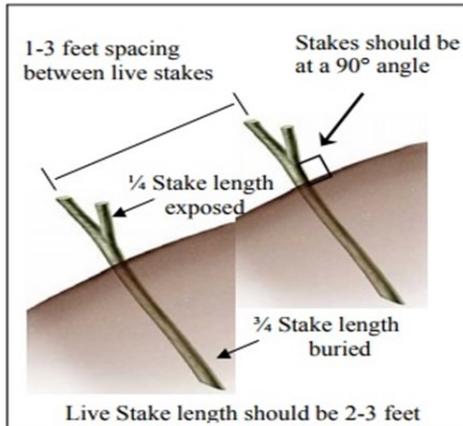


*From: "Field Guide for Harvesting and Installing Willow and Cottonwood Cuttings" - March 26, 2016*

## Planting Live Willow Stakes for Streambank Stabilization... *Continued*

### Installation

Live stakes can be planted during the dormant season of late fall through early spring, the same time period recommended to harvest live stakes. It's best to plant your live stakes right after cutting them. Live stake cuttings can be stored in a cool, dry place (3 - 4 months), or in a shaded area on-site. Soak live stakes in water 1 - 14 days before planting. To properly install live stakes:



*Image Credit: Portland Water District*

- Push (or use a rubber mallet) to carefully drive the pointed end of each live stake into the streambank. If the stake doesn't go into the ground easily, use a rebar rod to first create a hole the length of the stake.
- Stakes should be planted at a 90° angle with 1/4 of the stake (including a few buds) sticking out of the ground.
- When planting, leave 1-3 feet spacing between the individual stakes.
- If the stake will be shaded by surrounding vegetation, use longer stakes and leave one foot sticking above the ground. If a willow stake, in particular, gets too much shade, it will drop its new leaves and die.
- Pour a mud slurry around the planted live stake to get rid of air voids.

### Maintenance

If live stakes are planted while dormant, shoots (leaves and small branches) should be seen in spring. If live stakes are planted during the growing season, it may take a full year or two to see results. If two or three growing seasons pass without signs of growth, remove the dead stakes and replace with new live stakes. Also, be prepared to replant if the area is affected by high water, drought, or ice damage before the stakes are fully established. To increase survival, the live stakes could be watered once a week during their first growing season.

If a streambank is severely eroded or steep it will need more stabilization than live staking. Contact the Harford Soil Conservation District ([www.harfordscd.org](http://www.harfordscd.org)) or Ecotone, Inc. ([www.ecotoneinc.com](http://www.ecotoneinc.com)) for more information and guidance.



*Live willow stakes starting to grow three weeks after being installed.*

## WE'RE MOVING!



If you have any questions, please call us at (410) 838-6181, Ext. 3. or send us a message via the "Contact Us" page at [www.harfordscd.org](http://www.harfordscd.org).

The Harford Soil Conservation District and staff of the Maryland Department of Agriculture will be moving to the new **Harford County Agricultural Services Center** at:

**3525 Conowingo Road  
Street, MD 21154**

*This move is tentatively scheduled for Wednesday, January 10, 2018.*

PLEASE NOTE: USDA staff (NRCS and FSA) will remain at the 2205 Commerce Road, Suite C, Forest Hill address, until further notice. This WILL affect all programs and your interaction with our District. Thank you for your patience as we navigate this transition.



**Harford Soil Conservation District**  
2205 Commerce Road, Suite C  
Forest Hill, MD 21050  
(410) 838-6181, Ext. 3

Find Us on the Web at [www.harfordscd.org](http://www.harfordscd.org)

UNIVERSITY OF  
**MARYLAND**  
EXTENSION

***UPCOMING EVENTS:***

At Deer Creek Overlook, 6 Cherry Hill Road, Street, MD 21154

Wednesday, January 17

Farm Transition Workshop

8:30 AM - 2:00 PM

Harford County will be one of several workshop locations in a series of one-day workshops to be held throughout Maryland this fall and winter for family farmers and ranchers interested in learning about the components of a successful farm transition. The Farm Transition Workshop will cover family communications, business planning, forestry planning issues, estate and transition planning, land preservation and estate taxes.

*"Research tells us that less than one-third of family businesses survive the transfer from one generation to the next. These workshops will provide farmers with the knowledge they need to plan a successful transition of the family farm."* - Kelly Nuckolls, Extension legal specialist with the University of Maryland

To register, call the Harford County Extension Office at **(410) 638-3255**.

There is no cost for the program. Lunch will be provided.

Tuesday, February 13

Mid - Winter Agronomy Meeting

9:00 AM - 3:00 PM

Check-in starts at **8:30 AM** with refreshments. Topics this year include: herbicide resistance management and dicamba use, soybean and wheat disease management, seed saving laws and considerations, grain bin safety, MDA pesticide and nutrient management updates, and local agriculture agency updates.

Registration includes a hot lunch and is now open; \$12 before 2/2/2018 and \$20 after and at the door.

Checks can be made to "HC EAC" and payment mailed to our new office location after January 8th:

**University of Maryland Extension—Harford County, 3525 Conowingo Road, Street, MD 21154.**