FARMER TRAINING & CERTIFICATION
FOR INTENSIVE SMALL-SCALE FOOD PRODUCTION OPERATIONS

The Maryland Department of Agriculture and University of Maryland Extension will host a Farmer Training and Certification (FTC) module for urban and peri-urban farmers to learn how to write Nutrient Management Plans for their own operations. As a grower, you have firsthand knowledge of your own crops, growing areas, and equipment. Who better to write your nutrient management plan than you? This seven-part series will teach you how to do it!

DATES: March 4, 6, 10, 11, 13, 18 (exam) and 25 (plan development), 2020 (snow date March 12)
TIME: 1 to 4 PM each day, plan development 9 AM to 4 PM
LOCATION: University of Maryland Extension, Baltimore City Office

You will receive:
• A comprehensive training binder - that will be used during the class, serve as a reference during the exam, and used as a valuable resource when you write future plans for your operation;
• Certification - producers who pass the exam will be certified by MDA to write their own nutrient management plans and
• A discount - on the purchase price of NuMan Pro, Maryland's nutrient management planning software.

Registration Information
• Space is limited and registrations are accepted on a first-come basis; therefore, register early.
• Paid registrations ($20.00) must be received by February 25, 2020.
• For more information, please call 410-841-5959. Classes will be cancelled if there is lack of interest.
• Registration form at bit.ly/2tbTfUE

ANNE ARUNDEL SOIL CONSERVATION DISTRICT
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ANNE ARUNDEL SOIL CONSERVATION DISTRICT
2662 Riva Road, Suite 150 • Annapolis, MD 21401
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• Urban Vegetation . . . . . . . . . p.3
• New MDA NMP Staff . . . . . . . p.4
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FOLLOW US ON FACEBOOK TO KEEP UP WITH THE LATEST NEWS AND INFORMATION!

Susan Chaney and Family of Chaney’s Promise Farm in Lothian were recognized as the Anne Arundel Soil Conservation District Conservationist of the Year at the annual dinner in October 2019.

NRCS FUNDS LOCAL CONSERVATION PRACTICES
by Heydsha Cordero

NRCS offers voluntary programs to eligible landowners and agricultural producers to provide financial and technical assistance to help manage natural resources in a sustainable manner. In December 20, 2018 the new 2018 Farm Bill was approved, and USDA is currently working on the implementation. Program Rules are being updated nationally and application deadline for the 2020 Farm Bill Programs in Maryland sign up will take place in the early months of 2020.

NRCS financial assistance programs include the following: Environmental Quality Incentives Program (EQIP) provides financial and technical assistance to agricultural producers to address natural resource concerns and deliver environmental benefits; Agricultural Management Assistance Program (AMA) helps agricultural producers manage financial risk through diversification, marketing or natural resource conservation practice and the Conservation Stewardship Program (CSP) helps agricultural producers maintain and improve their existing conservation systems and adopt additional conservation activities to address priority resources concerns.

Some of the conservation practices NRCS will be giving priority in Anne Arundel County this year are: watering facilities, pasture renovation, fencing, water well, high tunnels, oyster restoration, access roads, pond renovation and irrigation practices to mention a few. NRCS provides assistance with a wide variety of conservation practices to address many resource concerns. If you are interested in receiving assistance on addressing current resource concerns on your farm operation or future projects, please contact Mitch LeMieux at 410-919-2334.
The District Dirt, Spring 2020

MOVING TO ANNE ARUNDEL COUNTY FROM JUNIATA COUNTY, PA
by Michael Lock

Before relocating to Anne Arundel County, I worked for the Conservation District in Juniata County, PA. Juniata is a rural county nestled in Pennsylvania’s central valley with highly productive soils. For context, JCCD is a Level II District which means they have no enforcement authorization or need for an engineer on staff like a Level III District might.

Each of the four District employees handled two programs. Our programs included: Erosion and Sediment Control, Dirt, Gravel, and Low Volume Roads(DGLVR), Nutrient Management, Ag Land Preservation, Watershed, and Education.

I managed the DGLVR and Erosion and Sediment Control programs which came with the responsibility of construction inspections. In Anne Arundel County, these programs (and inspections) are managed by different county offices or by the State.

You might wonder how only four employees were able to handle the programmatic workload. Juniata County has a population of 394 square miles. In comparison, Anne Arundel County has 588 square miles.

Juniata County has 394 square miles – fewer than 25,000 people versus more than 573,000. The land size differential is a little closer; Juniata County has 394 square miles compared to Anne Arundel County’s 588 square miles.

Agriculturally there are many differences between each county. During my time in Pennsylvania, poultry barns seemed to be booming. In recent history, Juniata County was among the top five counties for producing broilers in Pennsylvania. The highest yield per acre crop is corn, though the workload might be smaller in Juniata, the size of farms producing animals is comparable, if not larger. Dairy and beef operations were plentiful and continued on page 4

Canvasback: King of the Chesapeake
by David Scheler

This large diving duck is the most sought after duck for sportman and bird watchers alike. The Canvasbacks identifying marks are pronounced red head crown, white belly; the tail, rump and bib are black. The hen’s body is an overall drab gray, with a sandy brown head. On both sexes, the bill is black and the feet are bluish gray.

Canvasbacks breed from the central Alaska through western Canada to Minnesota, and in some of the western states. Most, however, are found in the prairie pothole region.

Earlier in the century, Canvasbacks wintered in Maryland in large numbers. But commercial market hunters reduced populations significantly during the first third of the 20th century. Canvasbacks were the favorite targets of market hunters because their meat was considered the tastiest of any duck. This was the result of eating submerged aquatic vegetation, which was then abundant in our Chesapeake Bay.

Their numbers have rebounded since commercial market hunting was outlawed with the passage of the Migratory Bird Treaty Act in 1918. However, continued destruction of the Canvasbacks’ wetland breeding habitat in the prairie region has kept populations relatively low. Canvasbacks continue to be affected by pollution, loss of habitat and increased predator numbers. Canvasbacks no longer spend the winter in Maryland in appreciable numbers, largely the result of the loss of submerged aquatic vegetation like wild celery in Chesapeake Bay and tributaries due to decreases in water quality.

Canvasbacks begin their fall migration in the Eastern flyway in September, stopping along the way on large lakes and rivers, sometimes for several weeks at a time. Around Thanksgiving, or as weather dictates, Canvasbacks can be found in Chesapeake Bay and tributaries. During the winter months Canvasbacks are found feeding on wild grasses, mollusks, crustaceans and fish.

The best locations to view the Canvasback that are open to the public in Anne Arundel County are Down's Memorial Park, Sandy Point State Park, Thomas Point Park, and Beverly Triton Beach Park. They can also be seen at the following State Parks:

- Thomas Point Park
- Beverly Triton Beach Park
- State Park, Thomas Point Park
- C&D Canal Park

Steel reinforcement bars or rebar, are used in the construction of concrete. Concrete is high on compressive strength (squeezing) but low on tensile strength (bending and stretching). The tensile strength of concrete is ten times less than the compressive strength. Adding the steel bars helps reduce the bending and stretching and provides the tensile strength.

Concrete is highly prone to cracks because of tension forces and rebar helps to prevent the cracks from growing larger by preventing cracked slabs from moving apart. The nibbles or ridges on the steel bars help anchor them firmly in the concrete, reducing the risk of them slipping around inside.

The reason steel is used is because steel expands and contracts in the heat and cold roughly as much as concrete itself. This means it is less likely to crack the concrete that surrounds it as other materials that have different contraction and expansion rates then concrete.

Rebar can also help reduce the thickness of the concrete because it adds strength. Where corrosion is a concern, the reinforcement bar can be coated with epoxy or stainless steel bars can be used.

Welded wire mesh is often used in slabs that are not likely to have heavy equipment driven on it. It is thinner than rebar so not as strong, but it is less expensive.

Rebar is recommended for concrete that is at least 5-inches thick. The steel should be placed in the center, or slightly above the center.

When setting rebar for a concrete slab, “chairs” should be used under the rebar to support the reinforcement bar grid. Metal wire is used to fasten the rebar together. Spacing is critical and if not done correctly, it will lead to a reduction in strength.

For most of our projects we use #3, #4 and #5 bars and welded wire mesh for slabs.

If you would like assistance on constructing a concrete structure such as a waste storage facility, give us a call and we can design one that will not only meet your needs but will be constructed correctly.

John Czajkowski, District Manager
john@aacd.org

2019 URBAN VEGETATION ESTABLISHMENT NOTES UPDATE
by Justin Valkos

The Vegetation Establishment Notes are requirements given by the Anne Arundel Soil Conservation District (AASCD) and enforced by the County Inspectors. These requirements are put in place to help permittees and contractors ensure that vegetation growth occurs quickly and successfully on a disturbed site. Vegetation growth on a site is important to help stabilize sediments; therefore, keeping loose sediment from leaving the site.

In 2019, AASCD made two key updates to the Vegetation Establishment Notes. The first update was an additional sentence to Section 1D, which reads, “Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed.” Mulching is one method used to stabilize an area while promoting vegetative growth. This updated statement was added to ensure that contractors would not leave exposed soil during the mulching process. An inability to properly mulch disturbed areas could lead to a lack of vegetation growth and create an increase in sediment-laden runoff during weather events.

The second update was the addition of Section 7, “Use of these Vegetation Establishment Specifications does not preclude the permittee or contractor from meeting all of the requirements set forth in the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.” This Section was added to ensure that a permittee and/or contractor were to continue to obey the regulations set by the MDE 2011 Standards and Specifications for Soil Erosion and Sediment Control, while fulfilling the Vegetation Establishment Notes set by AASCD.

The 2019 Vegetation Establishment Notes can be found on our website at aascd.org/urban/ under the Resources for Sediment & Erosion Control section.

Justin Valkos, Soil Conservation Specialist, j.valkos@aascd.org
moving...

Continued from page 2

demanded complex projects like large
manure storage tanks and lagoons. Innovation isn’t lacking either; Juniata County is on the forefront in Pennsylvania for installation of Anaerobic Waste Digesters.

In contrast, Anne Arundel County’s top products are nurseries, vegetables, and soybeans. Having a much higher population and urban setting, Anne Arundel has a high demand for farm fresh fruits and vegetables. Farmers’ Markets are easily accessible during the summer months throughout the county. With many small farms a simple waste storage facility with wood or concrete walls are prevalent.

I’m excited to learn more about Anne Arundel County and meet landowners and farmers as I continue working for the District designing best management practices!

Michael Lock, RC&D Grant, Soil Conservation Technician, michael.lock@usda.gov

ZANG JOINS MDA NUTRIENT MANAGEMENT PROGRAM

Tim Zang, a lifelong Anne Arundel County resident, joins the Maryland Department of Agriculture (MDA) as a Nutrient Management Specialist providing urban record assessments, reviews of Nutrient Management Plans written by consultants, and on-farm evaluations. Tim grew up on a diversified family farm in Harwood that produced tobacco and hay and raised cattle. The farm later transitioned to fruits and vegetables. Tim worked for the Green Industry for many years and was formerly employed at Southern States. He currently operates Zang’s Farm, an orchard and cut flower farm in Harwood. The farm has participated in the Anne Arundel County Farmers’ Market for many years and recently hosted the AAECD’s Arundel Green, “Taste of Anne Arundel County” dinner.

You can reach Tim through the MDA Nutrient Management Program at 410-841-5949 or by email: timothy.zang@maryland.gov.

FISHING THE FLATS: A MILLENNIAL’S VIEW OF THE EVER-CHANGING CHESAPEAKE BAY’S SKINNY WATER FISHERY

by Nathan Holsey

Born in 1992, I was blessed with an outdoor oriented father. From weekend fishing trips to Tangier Sound to afternoons spent walking the beaches of Eastern Neck Island for soft crabs, the Chesapeake Bay has been intertwined in my life since I was old enough to stand.

Being a millennial isn’t easy — the best times are gone. A majority of the world’s records for fishing were set in the 1970’s. There have been hardly any ever since.

My father was born in 1956 and has experienced the Chesapeake Bay’s fall run of big bluefish with sizes ranging from 10 to 20 pounds. These fish come into the bay in summer and early fall and today, it’s almost impossible to find any over 4 pounds.

The grey trout was the ultimate sought after gamefish. Large numbers were caught and my father has countless pictures of cooders full of grey trout. I have been fishing the bay for more than 20 years and have yet to catch one. They disappeared — a whole species of fish my generation will not get to experience.

However bleak as it may seem in my short lifetime, I have noticed some improvements. Conservation efforts across the state of Maryland are showing positive results.

Growing up fishing the grass flats of the lower bay I have seen plenty of changes. In my 20 years of experience, I have seen islands completely disappear and high tides flooding places to the point where residents need to canoe to work. And I’ve seen the rise and fall of grass beds. The beautiful grass flats of Tangier Sound went dead for about seven years, making it tough for fish like speckled sea trout, red drum and rockfish to find appropriate feeding grounds.

Greass beds are lifelines of the bay’s ecosystem. Brooding areas for baby crabs and baitfish create a plethora of feeding opportunities for the gamefish of the Chesapeake Bay. Without these healthy grass beds, all species are negatively affected.

The seven-year span from 2003- 2010 was the worst in my memory, so bad that the annual father son trips to Tangier Sound all but stopped. Hurricane Isabel in 2003 was the most devastating, causing the most rapid changes to the bay I have ever seen. Islands were created, islands were run dead for about seven years, making it tough for fish like speckled sea trout, red drum and rockfish to find appropriate feeding grounds.

The Maryland Department of Agriculture announced that farmers who planted small grains for harvest last fall may “top dress” these crops with commercial fertilizer beginning Feb. 15, as long as ground conditions remain favorable and in accordance with their nutrient management plans. The determination follows Maryland’s nutrient management regulations and is based on research conducted by University of Maryland (UMD) plant experts. As a reminder, manure may not be applied to fields until Mar. 1.

The University of Maryland recommends split applications of spring nitrogen with the first application occurring on or soon after Feb. 15 and the second application when the crops begin to joint.

continued on page 6

NUTRIENT MANAGEMENT: TEMPORARY MANURE STOCKPILING

by John Czajkowski

Under Maryland’s nutrient management regulations, you are allowed to temporarily stockpile dry organic nutrient sources having 60% or less moisture content when you are not able to utilize it or store it properly. This includes manure from beef, equine and swine operations as well as others. If you must temporarily stockpile manure, the following requirements apply:

- Manure storage structures must be completely utilized before starting a stockpile.
- Record the date the stockpile was started.
- Manure in temporary stockpiles must be land applied no later than the first spring following the placement of the stockpile.

The stockpile area must be:

- If a vegetative buffer is not in place, at least 100 feet from any surface water and irrigation or treatment ditches, or 35 feet away if a vegetative buffer is in place.
- At least 100 feet from wells, springs and wetlands.
- At least 300 feet from a well that is down grade from the stockpile.

- At least 200 feet away from any residence outside the operator’s property.
- Outside flood prone areas and areas prone to ponding.
- If located on more than a 3% grade slope and no diversion installed, no further than 150 feet from the top of the slope.
- The stockpile must be stacked at least 6 feet high and peaked to allow it to shed rainfall.
- Materials should be stockpiled in a manner that prevents nutrient runoff.
- If the manure stockpile will be exported from the farm, record the date that the manure was shipped, name and address of recipient, and estimated tonnage exported.
- Following the removal of the stockpile, the ground must be thoroughly scraped and cleaned, and the area restored to its original condition. If necessary, reseed the area with grass or an agronomic crop to facilitate nutrient uptake.

Subsequent stockpiles should be placed in the same location to minimize environmental impact.

If you are considering building a waste storage or composting facility, there are several options as far as design and materials. Contact us for more information.

John Czajkowski, District Manager, john@aascd.org

COMMERCIAL FERTILIZER APPLICATION MAY BEGIN FEB. 15
MANURE APPLICATION ALLOWED AFTER MAR. 1

The Maryland Department of Agriculture announced that farmers who planted small grains for harvest last fall may “top dress” these crops with commercial fertilizer beginning Feb. 15, as long as ground conditions remain favorable and in accordance with their nutrient management plans. The determination follows Maryland’s nutrient management regulations and is based on research conducted by University of Maryland (UMD) plant experts. As a reminder, manure may not be applied to fields until Mar. 1.

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continued on page 6

MDA BRIEFS

PMT IMPLEMENTATION SCHEDULE PROCEEDS - ALL GROUPS HAVE UNTIL JULY 1, 2022 TO FULLY TRANSITION.

LOW RISK GROUP – TIER A
(Soil Phosphorus FIV 150-299)

This group begins transition to the PMT in July 2020. It includes 1,313 operations managing 122,705 acres.

MEDIUM RISK GROUP – TIER B
(Soil Phosphorus FIV 300-449)

This group began transition in July 2019. It includes 252 operations (54,271 acres).

HIGH RISK GROUP – TIER C
(Soil Phosphorus FIV 450-499)

This group began transition in July 2018. It includes 96 operations (10,894 acres).

$1 BILLION GRANT TO PROMOTE SOIL HEALTH AWARDED TO MDA

A $1 billion grant from the National Fish and Wildlife Foundation’s Chesapeake Bay Stewardship Fund will help MDA promote healthy soils on farms as well as farmers including soil health education, outreach, and certain practices, including precision nutrient management. Farmers who are interested in field-testing this practice or other innovative soil health practices can contact our office for details.

CREP NOW OPEN

USDA is accepting applications for the Conservation Reserve Enhancement Program (CREP), a federal–state partnership program that pays farmers attractive annual rental payments to plant streamside buffers of grasses or trees to protect water quality and provide wildlife habitat. Contact our office for more information.

NEW COST-SHARE FOR DRAINAGE PRACTICES

Several new conservation drainage management practices are now eligible for cost–share funding of up to 87.5 percent through the Maryland Agricultural Water Quality Cost–Share (MACS) Program. The new suite of practices aims to help farmers manage subsurface or surface water in areas with high water tables or artificially drained fields. Contact us for information.

THE DISTRICT DIRT, SPRING 2020

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THE DISTRICT DIRT, SPRING 2020

5
washed away, but worst of all, the grass died. The life-line of the shallow water slowly disappeared. The excitable, speckled trout fishery suffered the most. With the lack of grass beds, we had to switch gears and begin fishing waters closer to home in Queen Anne’s County. Jigging for rockfish became the new thing since the shallow water fishery in the lower bay was dying off.

Around 2010, I began to notice positive signs of change – grass beds appearing including eel grass, which is a highly desirable species for the shallow water fish. We have begun fishing the flats again and it seems every year there is more and more grass.

The Manokin River in Somerset County, has practiced fire tilling. Once a desert after Hurricane Isabel. Now the grass is so thick in places you can’t even take a boat through it. The trout have returned, crabs have improved, and the rockfish are getting bigger.

It’s great to see a change for the better, it gives me hope for the future. Conservation efforts to reduce nutrient loads and erosion in the Chesapeake Bay, Natural disasters, pollution and excessive rainfall all impact the dynamic of the bay. Farmers usually benefit when there is plenty of rain for crops. However, an excessive rainfall – like the one we had in Spring of 2018 – can drastically decrease salinity levels in the bay, endangering a fragile ecosystem.

Salinity levels are everything in the Chesapeake Bay’s brackish water ecosystem. Shellfish are among the first to suffer. Low salinity levels stress shellfish and can kill whole areas off entirely. Razor clams for example are very sensitive to salinity changes, in wet spring 2018 and into the fall of 2018 there were acres of dead zones for these clams which are an essential bait for catching the Maryland Blue Crab. Oysters get so stressed in low salinity that they don’t grow which means these essential bay filters stop filtering as much water. Crabs that usually migrate up the bay in the summer became trapped by large dead zones and were unable to make it into river systems in the upper bay.

Dead zones are created by excess fresh water but also excess nutrients from agriculture, residential, and commercial sources that contribute to algae blooms which reduce oxygen levels in the water.

The past three summers, just above the Bay Bridge, we’ve seen square miles of dead zones. When the water is adequately oxygenated, fish can swim away and move from place to place making it harder for fishermen to predict when and where they will be. With these summertime dead zones, the fish are trapped and even the most novice fishermen have been able to catch rockfish in large numbers.

People assume this is a sign of rockfish populations are strong. However, everybody catching fish isn’t always a sign fishing is getting better. There past three summers boats have pinpointed these trapped schools of fish, where on any given weekend, it’s not a surprise to see 300-400 boats fishing all in the same spot. Many boats catching limits of fish – sounds amazing, right? Wrong. The problem is the school of fish that is trapped is the primary resident school of the bay and their numbers are not infinite.

These dead zones can only be combated with conservation efforts to reduce excessive nutrient runoff. We have no control over weather and natural disasters. But we can control what is running off farmland, yards, and commercial properties. Contact our office if you have questions about your property and how it could benefit the Chesapeake Bay.

Nathan Holsey, Natural Resources Conservation Service Grant, Soil Conservationist, n.holsey@aascd.org

Heavy nutrient loads from agriculture are not the only contributing factor to loss of habitat in the Chesapeake Bay. Natural disasters, pollution and excessive rainfall all impact the dynamic of the bay. Farmers usually benefit when there is plenty of rain for crops. However, an excessive rainfall – like the one we had in Spring of 2018 – can drastically decrease salinity levels in the bay, endangering a fragile ecosystem.

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