



Shiawassee Conservation District

Your Land, Your Water ~ Your Michigan

1900 S. Morrice Road • Owosso, MI 48867 • (989) 723-8263, Ext. 3 Summer/Fall 2015

Featured Stories

- What's Up with the Trees?
- Summer Stream Studies in Shiawassee County
- Funds for Septic Systems
- Survey Shows Expanded Acreage and Yield Boost with Cover Crops
- Invaders in Our Community
- Backyard Water Conservation

Important Dates

- Shiawassee County Fair
August 9 - August 15
- September 17 - Conservation on the Farm Day
- September 24 - FFA Agriculture Tour
- October 3 - Electronic Waste Recycling Drop off

Mosquitos Buggin' You?

As requested by Shiawassee County residents, we are now offering a NO Chemical, NO Poison answer to repel mosquitoes. Just one spraying of all natural, liquid garlic-based Mosquito Barrier will keep mosquitoes out of your yard for nearly a month.



Mosquito Barrier is available to purchase at the Shiawassee Conservation District for \$25/quart, covering 1.25 acres; \$80/gallon, covering 5 acres.

Conservation on the Farm

Please join us

Thursday, September 17, 2015

8:30 am Registration | 9:00 am - 1:30 pm Program

Allen Farms

6514 W. Cronk Rd. • Owosso, MI

- Agricultural drones for precision agriculture with live demonstration
- Cover crops featuring an aerial seeding demonstration
- Drainage Water Management
- Michigan Agriculture Environmental Assurance Program (MAEAP)
- Conservation Farm Bill Programs with a focus on waste management systems including manure storage and roof runoff structures

Lunch will be provided | This is a free event

RSVP by September 9

Shiawassee Conservation District 989.723.8263 ext. 3

RUP & MAEAP Phase 1 Credits Pending



If you need accommodations to participate in this event, please contact the Shiawassee Conservation District at (989) 723-8263, ext. 3 by September 9, 2015.

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What's Up With the Trees?

By Bill Cook, Forester & Biologist MSU Extension, Upper Peninsula

"My tree is dying. Can you tell me what's killing it?" This is a common question with earnest interest. Unfortunately, it's usually not precise or complete enough for a credible response. When damaging agents are seen in the forest, it's a good idea to learn what is happening. Before contacting a resource, first record a few observations and consider taking some photos.

Photos of symptoms and the whole tree can be of great diagnostic use. Be sure that they

clearly show the intended issue. A picture of a dead tree won't be too helpful. It's quite simple to attach a few images to an email message or bring them into an office. Photos can also help confirm tree species ID. Remember that it can be difficult to ID a person from just a picture of a finger! It's similar for trees.

Correct tree species identification is critical. In some cases, the genus is good enough but species ID is best. A lot of time can be misspent by chasing-down "pine" diseases when the affected tree is a spruce.

Next, it is often important to carefully observe which tree parts are damaged. Brown or wilting leaves may be caused by damage to branches, stems, or roots. Leaf spots or holes are typically normal natural events, especially later in the season. Even severe defoliation isn't necessarily a problem for an otherwise healthy tree.

When leaves are symptomatic, note any patterns. Top down? Bottom up? Inside out? Outside in? Are nearby or area trees of the same species showing symptoms? Is this the first year when the ailment was seen? A bit

of sleuthing might reveal a key piece of information.

The timing and seasonality of these patterns can be important, too. Insects and diseases have life cycle patterns where symptoms typically occur at certain times of the year. When did

the symptoms first begin? How long has the problem been ongoing? Has the weather been unusual?

The size of a tree can sometimes be important, both height and diameter. Keep in mind that large trees

are not necessarily old trees. Open grown trees can grow rapidly.

The habitat can sometimes provide clues. Some diseases have alternate hosts. So, knowing the general soil type, proximity of wetlands, and these sorts of landscape features can be important.

Of course, residential trees generate a greater proportion of inquiries as these trees are more often seen. Urban environments are particularly harsh for trees – lawns, mechanical wounds, chemicals, soil compaction, open-grown exposure, etc. Also, tree ID can be more difficult due to the many horticultural varieties available as ornamentals. In this instance or case, homeowners might benefit most by contacting an arborist or urban forester, rather than a field forester.

Critical for residential trees, is to note if the ground has been recently disturbed. Cable trenches, fill, lawn amendments, over/under watering, driveways, walkways, and any number of home landscaping features can disrupt root systems. Keep in mind that most roots are within the top 18 inches of soil and spread from the

trunk to a distance roughly equal to that of the height of a tree.

If you need to provide a sample, be certain to collect one that can help diagnose the ailment. A sprig of dead leaves or needles is not usually helpful. It's best to collect a sample in the process of dying and attach it to the sort of information earlier described.

Many times, observations of insects are secondary infestations, rather than the original cause of the problem. For example; ants will excavate trunks where wood-rotting fungi have softened the tissue. Or, woodpeckers will seek larvae that have successfully invaded under the bark into the living tree issues. Sometimes, other insect species that happen to be visible are incorrectly attributed to the damage.

Lichens are sometimes mistaken for a fungus that might hurt a tree. Rather, lichens merely use the tree as a substrate upon which to grow.

Normal aging of trees, especially bark characteristics, can cause concern. Smooth bark often breaks-out into rougher textures as a tree grows. Older bark will slough off. These changing appearances can be mistaken for an ailment.

When something appears abnormal with trees, it's a good idea to learn why. More often than not, the cause poses little permanent harm to the tree. However, early detection of infestations, especially those of exotic species, can lead to effective treatment or eradication. Having many "eyes" in the forest is one of the best ways to protect a forest.

Contact the Conservation District or stop in with your tree samples for more information.

Forest owners can help diagnose pests in their woodlands by collecting some basic information for forest health experts and, if necessary, providing useful samples.

Summer Stream Studies in Shiawassee County



A perspective picture of summer intern, Hailey Andres, stuck in the mud on a stream survey walk.

This summer, the Shiawassee Conservation District has been carrying out inventories of Shiawassee County waterways to better understand our natural resource issues. Through a Stormwater, Asset Management, and Wastewater (SAW) grant awarded to the Conservation District, staff is taking a detailed look

at some of the underlying concerns in the Upper Misteguay Creek and Upper Looking Glass River watersheds.

Nonpoint source pollution (NPS) is pollution discharged over a wide area not from one specific source. During the stream inventories, NPS, such as soil erosion, livestock contributions, and urban runoff, is noted in the field. The on-site inventories begin by first analyzing aerial maps and existing data to determine the most likely places with issues. Staff then prioritizes sites and walks streams, taking account of the conditions. Noted during the inventory are aspects such as water color, aquatic vegetation, land use around the stream, and any other interesting or alarming sights. Along the walk, pictures are taken in order to capture concerning areas.

After completing field analyses, the information and pictures are compiled into a database along with recommendations for addressing issues. This information will be used by the Conservation District to develop watershed management

plans and apply for grant funds to address natural resource issues. The ultimate goal of the stream inventory study is to make recommendations that will protect our water and land resources and help landowners to create a safer and healthier community for years to come!



Sara Stevens, a student from Baker College's Agriculture Technology Program job shadowed Jay Korson, Shiawassee Conservation District Agricultural. Together they inventoried tributaries of the Looking Glass River under our SAW grant.

Funds for Home Septic Systems

The Shiawassee Conservation District is offering funds to help homeowners in portions of Shiawassee County to replace failing septic systems and pump septic tanks. Most homes located in the Holly Drain Watershed are eligible for the Septic System Assistance Program.

Failing septic systems contribute harmful bacteria to water that can cause serious illnesses. Signs of a failing septic system include, slow or backing up drains, lush plant growth on the drain field, and spongy grass that may have an odor.

The Holly Drain Watershed flows to the Shiawassee River and includes portions of Vernon, Burns, Venice and Shiawassee Townships. Streams in

these areas have a documented problem with *Escherichia coli* (*E. coli*) bacteria. At least a portion of the *E. coli* has been traced back to a high number of failing septic systems in this area.

This is the second year the Conservation District has been able to offer this type of assistance to homeowners. The program is voluntary and includes a confidential home environmental risk assessment with Conservation District staff and a Health Department inspection of the system. Once enrolled, the program covers 75% of the costs to pump the septic tank and 75% of costs of a new septic system.

"To date, the District has assisted

16 homeowners with environmental education and brought nearly \$50,000 in aid for this costly yet necessary home repair," stated Andrea Wendt, Shiawassee Conservation District Watershed Technician. "Not only are we helping homeowners but we are also improving water quality. We will continue to reach out to the people who live in the Holly Drain Watershed to offer this assistance."

Funds for this program are limited and made possible through a Nonpoint Source Pollution Prevention grant held by the Shiawassee Conservation District. For more information or to see if you qualify, contact the Conservation District today!

Survey Shows Expanded Acreage and Yield Boost from Cover Crops

By SARE outreach for the Sustainable Agriculture Research and Education (SARE) program

For the third year in a row, a national survey of farmers has shown that cover crops improve corn and soybean yields while providing a host of other benefits. The survey of more than 1,200 farmers revealed that cover crops boosted 2014 corn yields by an average of 3.7 bushels per acre (2.1 percent) and soybeans by 2.2 bushels per acre (4.2 percent). Cover crop acreage per farm more than doubled over the past five years.

The survey was conducted by the Conservation Technology Information Center (CTIC) with funding from USDA's Sustainable Agriculture Research and Education (SARE) program and the American Seed Trade Association (ASTA). While the survey showed yield increases among growers who use cover crops, they are interested in more than the yield benefit. The three most-cited benefits of using cover crops were:

- Increased soil health (22 %)
- Increased organic matter (20 %)
- Reduced soil erosion (15 %)

"This shows a strong appreciation for the wide range of long-term benefits cover crops deliver," says Chad Watts, CTIC program director.

The survey also provided insight

into why growers use or do not use cover crops. Growers cited the top challenges to growing cover crops as:

- Establishment (22 %)
- Cover crop seed cost (20 %)
- Time and labor required for planting and managing cover crops (19 %)

The survey provides powerful insight on the role of markets and financial programs in influencing cover crop decisions. "Nearly three-quarters of the cover crop users in the survey said commodity prices have little or no influence on whether they plant cover crops," says Rob Myers, regional director of Extension programs for North Central Region SARE. "Many people speculate that low corn and soybean prices would stall the growth of cover crops, but the farmers in the survey are telling us—and demonstrating—that the benefits of cover crops outweigh lower commodity price considerations."

On the other hand, 92 percent of the farmers who do not currently plant cover crops say economic incentives would somewhat or always influence cover crop adoption. "These results illustrate that economic incentives can help encourage farmers to consider cover crops, but once they

start using them, the multiple benefits they are seeing will motivate them to continue using covers," Myers notes.

The extensive survey, which was distributed with assistance from *Corn and Soybean Digest* and gathered perspective from 1,248 farmers—84 percent of whom plant cover crops—also gathered data on a wide range of issues, from management practices to landlord attitudes about cover crops to the most influential sources of information on the practice. The report also includes responses to some questions from hundreds of additional farmers who did not complete the entire survey.

Watts says the survey will be a valuable tool for farmers, ag retailers, conservation advisors, policy makers and many others interested in conservation agriculture. "The survey results provide insight into the thinking behind cover cropping decisions and will help guide the research, education and promotion of the practice around the country," he says.

For more information or to obtain the full report, contact the Shiawassee Conservation District.

Hailey Andres Joined the District as a Summer Intern



Hailey Andres, a senior from New Lothrop High School joined the Conservation District this June as a summer intern. Through the District's SAW grant, she has assisted with stream inventories identifying resource concerns to support the District's development of watershed management plans. "Getting the chance to team up with the Conservation District this summer has furthered my love, interest, and knowledge in the field of agriculture

and conservation." says Hailey, "I'm glad I had the opportunity to work out in the field this summer with such an awesome staff here at the District!" From her gained knowledge, Hailey plans to share her experiences of conservation and safe agricultural practices throughout her community, and her local FFA chapter.

Electronic Waste Recycling Event to be held October 3

The Shiawassee Conservation District will be holding an Electronics Recycling Collection on Saturday, October 3. The collection will be held at the USDA Service Center located at 1900 S. Morrice Road in Owosso from 9 am till noon. Electronics will be accepted free of charge, with the exception of Cathode Ray Tube (CRT) TVs and computer displays, which will be accepted for a small fee to help cover the high cost of recycling.

Electronic waste, or e-Waste is the fastest growing waste stream in the country. Untreated e-Waste may contain hazardous materials, which can adversely affect the environment and public health. CRT TVs and computer displays contain approximately 5-10 pounds of lead in each unit.

The Shiawassee Conservation District, with financial assistance provided by Shiawassee County's funds from Waste Management, will cover 60% of the fee to recycle CRT's, charging only \$0.10 per pound. Full price would be \$0.25 per pound. "We have held three county wide electronic waste recycling events since the Fall of 2013 collecting approximately 70,000 pounds of e-waste, and it is estimated that 49,000

pounds of that was CRT devices," states District Manager Melissa Higbee. "We recognize that there continues to be a real need in Shiawassee County for electronics recycling at a reasonable rate, and we are happy to be able to continue offering this service." The fee for CRTs must be paid at the time of drop off. The discounted fee is only available until all funds are expended. Other electronics and media will be collected at no charge.

Other items accepted free of charge include broken or unwanted flat screen TVs and computer monitors, computers and computer components, cell phones, electric power tools, and small appliances. Batteries, toner cartridges, VHS tapes, CDs, and floppy discs will also be accepted. Items that will not be accepted include light bulbs, refrigerators, large appliances, and dehumidifiers.

The Electronic Recycling Collection event is coordinated by the Shiawassee Conservation District through a partnership with Comprenew® electronics recycler. Comprenew is the only nonprofit electronics recycler based in Michigan that is licensed and registered by the

State of Michigan and certified R2:2008 for Responsible Recycling. All equipment collected will be destroyed and recycled in the U.S. in accordance with all local, state and federal guidelines, regulations and laws pertaining to the collection, transportation and recycling of electronic equipment.

Contact the Shiawassee Conservation District for more information about the District's Electronic Recycling Program.



Conservation District employees Danielle Santana and Jay Korson take a break from moving old TVs during the District's first e-waste recycling event in the Fall of 2013.

Katelyn Salowitz Continues her NRCS Career in Lapeer



Over the past two years, Katelyn Salowitz has been helping Shiawassee County landowners and landusers protect our natural resources. She has a genuine passion for conservation and is committed to each person who calls on the Conservation District for assistance.

Katelyn has recently accepted a position at the Lapeer Conservation Office, where she will continue working for the Natural Resources Conservation Service. "Katelyn's presence in our office will be missed

by staff and producers," stated District Conservationist Tina Tuller. "She works hard to ensure each conservation plan she writes not only addresses environmental resource concerns, but also meets the producers' needs."

The Conservation District sincerely thanks Katelyn for the service she has given to Shiawassee County in helping put conservation on the land. We wish her the best of luck in her career with the Natural Resources Conservation Service.

Invaders in Our Community

Invasive plants, we have all seen them, but we don't always recognize them. They are thriving in our cities and in our countryside. Others are in our yards and gardens, admired by gardeners who may not be aware of their weedy nature. Although these species may be pleasant to look at, they are invading Shiawassee County's natural habitats and hurting our native species.

Invasive plants have the ability to thrive and spread aggressively outside their natural range. They can establish in new areas and gain an ecological edge because the insects, diseases, and foraging animals that naturally keep its growth in check in its native range are not present in its new habitat. Many invasive species are here to stay, but with good management and wise choices, we can prevent further spread and protect our native species and habitats. Below are two profiles of invasive plants commonly found in Shiawassee County.

Tree of Heaven: also known as *Ailanthus*, grows just about anywhere that is not shaded. It is one of the few trees that can grow in abandoned alleys, gutters, and broken sidewalks. It grows very quickly, and competes aggressively for sunlight in newly developing forests. Disturbed sites are

often dominated by tree-of-heaven. Pull these seedlings whenever you see them; once they have grown for a few years, they are extremely difficult to get rid of. Tree of Heaven produces an abundance of seeds and also excretes a chemical that kills and prevents other plants near it. All of these characteristics make it a serious threat to natural areas, agricultural fields and roadsides.

Purple Loosestrife: a water loving plant with pinkish-purple flowers that appear over a long period in the summer. Although this species tolerates a wide variety of soil conditions, its typical habitat includes cattail marshes, sedge meadows, and bogs. It also occurs along ditch, stream and riverbanks, lake shores, and other wet areas. In such habitats, purple loosestrife forms dense, monospecific stands that can grow to thousands of acres in size, displacing native plant species and eliminating open water habitat. The loss of native species and habitat diversity is a significant threat to wildlife, including birds, amphibians, and butterflies, that depend on wetlands for food and shelter. The seeds of this plant easily wash into waterways, and can be carried in the mud on the feet of waterfowl.

Controlling invasive plants can be



Purple Loosestrife found along the banks of the Shiawassee River in Loop Park in Owosso. The purple flowers can be very pretty to look at, but this invasive plant is a serious threat to native habitats.

tricky and takes persistence and patience. Preventative measures are the best ways to control invasive plants. Learn to identify invasive plants found in your area, remove them from your property and plant native species instead. For more information on invasive species and their control, contact the Shiawassee Conservation District.



A large Tree of Heaven can be found growing along the Shiawassee River behind the Owosso City Hall. The seeds have spread along the river bank, establishing many more of this invasive tree, as seen in the pictures above.

Freeman Joins Shiawassee County's 80 MAEAP Verifications

Randy Freeman recently joined the ranks of Michigan farms that are Michigan Agriculture Environmental



Assurance Program (MAEAP) verified when he achieved verification in the Cropping and Farmstead Systems in April 2015.

He is one of many Shiawassee County farmers who actively work with the Shiawassee Conservation District to protect natural resources. The District provides technical and financial assistance to farms of all sizes to identify environmental concerns, develop a conservation plan to address those concerns, and then implement the practices listed in the plan. These services are offered free

of charge and kept confidential.

After the farm has implemented the practices in their conservation plan, they have the opportunity to become MAEAP verified in the Farmstead, Cropping, and/or Livestock systems. MAEAP verified farms are recognized with a sign at their farmstead and receive additional benefits.

Contact the Shiawassee Conservation District for more information on MAEAP, educational opportunities, technical assistance, and financial assistance available.

Backyard Water Conservation

Wise use of water for your garden and lawn not only helps protect the environment, but saves money and creates favorable growing conditions for plants. Simple ways to reduce the amount of water used in your yard include using native plants, mulching, adding organic matter to the soil, and installing windbreaks to slow winds and reduce evaporation. Watering in the early morning also helps reduce water lost from evaporation. Installing rain gutters and collecting water from downspouts in rain barrels also helps to reduce water use.

In nature, rainwater infiltrates into the soil almost completely and contaminants are filtered out before water enters surface or ground water. Impervious surfaces such as roads and driveways do not filter water and increase runoff leading to erosion and flooding.

Landscaping for water quality invites nature back into our lives and yards. In addition to being attractive, grasses and wildflowers require less fertilizer and water to survive while improving water quality through increased infiltration. With this type of landscaping, you are in control of the impact from your property.

Below are a few key points for your water conserving yard:

- Set a goal. Do you have a shoreline to protect? Are you trying to revegetate bare areas? Knowing what you are trying to achieve is the key for designing your water conserving yard.
- Remove turf grass as much as possible and change impervious surfaces to pervious ones.
- Get to know your soil. A soil test will determine your soil composition and tell your soil nutrient levels.
- Determine sun exposure. Knowing the parts of your yard that are full, part and limited sun helps in figuring your design.
- Use native plants that are best suited to your conditions. They are beautiful and require less maintenance
- Use a mixture of plant species to provide diversity, increase survival, and add aesthetics.
- Use a variety of plant heights for variation as well as to trap water as it enters your garden.

From a simple buffer zone (an area that helps absorb rainwater and filters pollutants) to a radical yard change, the possibilities are endless! For more information on ways you can

transform your yard to a water conservation landscaped environment, contact the Conservation District today!

Alexis Allen Joined NRCS for the Summer



Alexis Allen joined the Shiawassee Conservation District and Natural Resources Conservation Service (NRCS) this summer as a NRCS student trainee.

Alexis currently attends Tennessee State University in Nashville Tennessee, where she studies Agriculture, with a concentration in Agriculture Business and a minor in Public Policy. "I appreciate the opportunity that I was given to work for NRCS," stated Alexis, "My experience has given me new insight and appreciation into what NRCS, Conservation Districts, and land users do to protect our natural resources." Alexis plans to utilize her knowledge gained to help protect natural resources and to educate people about conservation in agriculture as she pursues her career in Agribusiness.



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SHIAWASSEE CONSERVATION DISTRICT

www.shiawasseeccd.org

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- Jay Korson, Agricultural Technician
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