

Conservation Farm of The Year: POST DAIRY FARM, LLC



Congratulations to Post Dairy Farms LLC on being selected as the 2014 Genesee County Conservation Farm of the Year by the Genesee County Soil and Water Conservation District Board of Directors! For five generations, Post Farms has continued to grow and implement conservation practices, and has been working with the District since 1965. Jeff Post is the fifth-generation farmer, sharing ownership with his father, Dan, and uncle, John. Jeff's great-grandfather bought the 100 acres that would become Post Farms in 1890:

there was a barn, a house and a few cows; each generation since then has added to the farm.

Today, Post Farms owns 500 acres, milks 400 cows, and has recently built a new barn with four robotic milkers. The District provided technical assistance with the installation of drip trenches around the perimeter of the new barn. Here at Soil and Water, we emphasize the importance of conservation practices, and the Posts have gone above and beyond when it comes to ways landowners and farmers can be stewards to protect our water and soil resources. Post Farms has grassed water ways, which protect drainage-ways from gully erosion, and the vegetation provides cover for small birds and animals. In addition, the Posts have installed diversion ditches, which reduces soil erosion and prevents sediment from reaching Oak Orchard Creek.

Not only is Post Farms recognized for their conservation practices, but also the love for their cows is admirable. The success of Post Farms was not without hardship; in August 2011, a fire destroyed the barn that was on the property since 1890 when the land was first purchased. A symbol of the tradition of five generations of farming the land, the loss of the family barn was emotional, to say the least. But, as with many tragedies, a silver lining in the wake of that loss was the construction of new barns, which have helped improve farming operations. Now, in 2015, Post Farms shows no signs of slowing down, but of continuing farming practices that are efficient and forward-thinking.

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Genesee County SWCD is keeping up on the latest invasive species news!

Invasive species, especially the emerald ash borer (EAB, *A grilus* planipennis) and Hemlock woolly adelgid (HWA, *A delges tsugae*), have become a hot topic and serious concern within the past decade in New York State. The emerald ash borer (hereafter referred to as EAB, see Figure A) is a member of the metallic wood-boring beetles (Buprestidae) and was first reported in 2002 near Detroit, Michigan. HWA is an aphid-like invasive insect that sucks sap from the needles of hemlock, which damages the tree's foliage.

In this article we focus on EAB, as it has already posed serious threats to ash stands in upstate NY. It has since spread to 13 states and two Canadian provinces, killing hundreds of millions of ash trees in rural and urban settings. This pest negatively impacts all ash trees native to New York State, including the common white ash (*Fraxinus Americana*), green ash (*Fraxinus pennsylvanica*), and black ash (*Fraxinus nigra*). These beetles have a one-year life cycle, with larvae emerging beneath the bark of blue, green, white, and black ash trees in late May or early June. An adult female EAB can lay from 60 to 100 eggs during her lifetime, placing the eggs in the bark crevices of ash trees. After hatching, the larvae chew through the outer bark and feed in the phloem, which is the inner bark where nutrients are transported from the leaves to the rest of the tree. The larvae (Figure C) are slightly flattened, white or cream colored with 10 abdominal segments, the last 3 or 4 bell-shaped. The larvae are the ones that eventually kill the ash trees; they feed on the inner bark, which disrupts the tree's ability to transport water and nutrients.

How can you identify which ash trees are being affected by EAB? First, know where there has been an outbreak of EAB infestation in your area. Currently, EAB tree infestation is occurring in Monroe, Erie, Cattaraugus, Onondaga, and Niagara Counties; however, EAB detection occurred in Genesee County. Affected ash trees will show several signs and symptoms, depending on how long the tree has been colonized by EAB. D-shaped exit holes (Figure B) can be seen on the trunk of an infected ash tree; these holes form when the pupae emerge head-first through a distinctive 3mm to 4mm hole. Underneath the outer bark, you can find serpentine galleries (Figure D), which are from boring larvae. Other signs include canopy thinning, epicormic sprouting (sprouts grow from roots and trunk, and leaves are often larger than normal), wood-pecker damage (best observed in winter, after rain), and vertical bark cracks. Most ash trees will die within 2 to 4 years of becoming infested.

One recommended management practice for threatened ash stands is planting replacement trees that will be ready to fill canopy gaps as ash die out. Canopy gaps create light openings that allow seeds and seedlings to grow, filling the gap. The natural succession of forests can sometimes lead to undesirable stands of invasive plant species that will not provide the desired benefits through wildlife and timber value, and will be difficult to remove once established. By planting a variety of tree species that are shade tolerant and have similar characteristics to ash trees, you can have some control over your next forest stand. Genesee County SWCD offers several ideal replacement species through our 2015 Tree & Shrub sale-try planting Tamarack (*Larix laricina*), red maple (*Acer rubrum*), and many other species, but remember, the right replacement tree will depend on the location and purpose of the replacement planting.

Know how to identify ash trees in your neighborhood and town and call the **Genesee County Comell Cooperative Extension office at 585-343-3040** if you think you may have EAB on your property. More information on EAB and the Hemlock Woolly Adelgid can be found on the NYS Department of Environmental Conservation website (www.dec.ny.gov) and the New York Invasive Species Clearinghouse website

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What tillage works best?

In conventional tillage, the soil is turned to a depth of 8 to 12 inches with a plow, and the plot is disked several more times to prepare the seedbed before planting takes place. Perhaps the most frequently claimed reason for tilling is to loosen the soil so oxygen and water can reach the area where roots grow. Most people agree that notill farming is the best way to minimize soil erosion in most crop rotations, but is it the most beneficial tillage system? Every tillage system has pros and cons, and choosing the best alternative is dependent on specific site characteristics. So, what are your options?

- 1. <u>No-till</u>: No-till leaves the most residue of all tillage systems. It is a one pass system, where the only tillage occurs when the seeder cuts open a pocket for the seed to be placed. High residue has advantages, but also has disadvantages. For example, high residue creates an environment where moisture is conserved in dry conditions, more organic matter is available for holding and providing nutrients, and soil erosion is minimal. This also creates a moist, cool environment in the spring which has two implications: 1) seed germination may be delayed due to cool soils; and 2) increased pest problems, as most crop pests are favored by cool, moist conditions.
- 2. <u>Reduced-till</u>: Reduced tillage is a compromise between no-till and conventional tillage systems (moldboard plow and disk). Typically these systems are classified as **mulch till** or **reduced till**. Mulch till will disturb the entire soil surface, but will leave crop residue on the surface, which reduces erosion. This system is adaptable to a wide variety of soils and offers many options for weed control. Zone till focuses on a thin band where the seed will be placed, leaving the area between the rows undisturbed; this method essentially combines the benefits of conventional and no-tillage, mostly without any of the negative consequences of either.
- **3.** <u>Conventional tillage</u>: Moldboard plowing and disking is becoming a thing of the past. These systems leave a clean, smooth seedbed that is ideal for seed germination. They have also been found to create a compaction layer below the plow depth (a plowpan layer), a lack of organic matter, and higher soil loss in moderate to steep slopes.

So, where are different tillage systems used?

No-till farming is preferred in locations with low soil moisture, or significant erosion problems, typically on steep side hills. **Reduced tillage** may be used in flat or gently sloping ground, where more soil moisture is an issue but organic matter is still desired. **Conventional tillage** can be used to occasionally mix a soil profile within a reduced or no till system, but frequent use is not typically recommended any longer.

Want to improve your soil health? In most crop rotations, tillage is the easiest change to make. Visit your local NRCS Service Center to talk with Soil & Water and NRCS staff to evaluate your tillage systems. We can help you weigh options based on your specific site conditions and available equipment!



Example of no-till farming



Mulch tilling

Moldboard plowing

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Introduction to NYS DEC TMDL process for Genesee County

The goal of the federal Clean Water Act is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Stated under section 303(d), states must develop lists of impaired waters (303d list). These are waters in which regulations and other required controls are found to be insufficient in meeting the water quality standards set by the states. For waterbodies on this list, states must develop strategies and plans including Total Maximum Daily Loads (TMDLs) to reduce the amount of pollutants responsible for the failure to meet water quality standards. DEC uses the acronym "TMDL" to summarize the process of developing a plan to improve water quality in those impaired waterbodies.

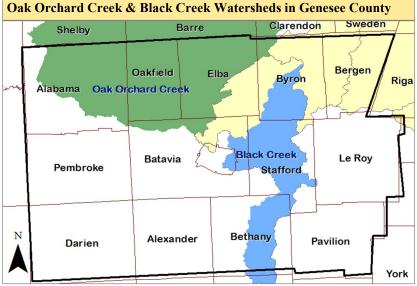
The TMDL also calculates the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. Implementation plans and practices outlined in the TMDL are typically voluntary, yet encouraged, for potential non-point pollutant sources. However, permits for point source pollution DEC may require adjustments.

Developing a TMDL involves gathering information on the land use in the watershed, waterbody sampling, characterization of residential on-site septic systems, annual rainfall data, topography, and other characteristics. The DEC also holds public meetings to describe the TMDL process, gather information and comments from stakeholders, or present the proposed TMDL plan.

Multiple waterbodies, or reaches of waterbodies, in Genesee County have been listed as impaired by the DEC and the list is available at http://www.dec.ny.gov/chemical/31290.html. One waterbody on this list in Genesee County is Black Creek. The upper portion of Black Creek in Genesee County was identified as impaired due to excessive concentrations of phosphorus. From this, a proposed TMDL plan was created by the DEC in September 2013. The upper part of Black Creek Watershed is shaded in blue in the Genesee County map below. The rest of Black Creek Watershed is shaded in yellow. The draft TMDL for Black Creek Proposal can be found at http://www.dec.ny.gov/docs/water-pdf/draftblackcreektmdl.pdf.

Currently, the DEC is working to create a proposed TMDL for phosphorus for the Oak Orchard Creek Watershed. The map below shows parts of the Oak Orchard Watershed in green. On February 24th, 2015, a public meeting was held at the Elba Fire Hall to gather

information about the creek and impaired use from stakeholders. The information gathered here will be used in a Soil and Water Assessment Tool (SWAT) to model the phosphorus concentrations in Oak Orchard and to help create the TMDL plan. DEC announced that another public meeting will be held in the summer of 2015 or later to present the model's output and possibly the proposed TMDL plan.



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Genesee County Soil & Water Conservation District

Pond Management Seminar to come this year by SWCD!

2015 FISH ORDER FORM

TRIPLOID GRASS CARP

The grass carp is one of the largest members of the minnow family, commonly reaching weights in excess of 25 pounds. Native to the rivers of eastern China, it has been introduced into over 50 countries due to its uncanny ability to control a wide variety of aquatic plant species. Grass carp feed strictly by grazing on aquatic vegetation and do not share the bottom-feeding habits typical of common carp and goldfish.

Triploid grass carp, which are sterile and incapable of producing viable young, are the only form of grass carp legal in NY due to concerns over the potential impact fertile grass carp could have on sensitive aquatic habitats should uncontrolled reproducing populations of the fish become established.

AQUATIC PLANTS KNOWN TO BE CONTROLLED BY TRIPLOID GRASS CARP: Common elodea, coontail, fanwort, naiad, curly leaf pondweed, leafy pondweed, sago pondweed, floating pondweed, duckweed, muskgrass and submergents, including bladderwort, watermilfoil, water-stargrass and wild celery.

AQUATIC PLANTS NOT CONTROLLED BY TRIPLOID GRASS CARP: Arrowhead, bulrush, burreed, cat tails, watershield, white waterlily and algae.

FISH ORDER FAQ:

- 1. When is the order deadline? We have a couple fish deliveries, in the spring and fall as the demand for fish warrants. When we have a sufficient number of fish ordered, we contact our supplier, who gives us a delivery date, usually the next week. You will be notified approximately a week in advance of the exact delivery date
- 2. **How are my fish delivered?** The hatchery truck delivers the fish to our parking lot at 29 Liberty St., Batavia. Your fish are to be picked up between 10-11 a.m. Please be prompt as the hatchery truck will not wait and we have no way to hold your fish.
- 3. What containers & water should I use? We recommend a large cooler or clean garbage can with lid filled with at least 15-20 gallons of water from your pond. Do not use chlorinated water to transport your fish.
- 4. How do I get triploid grass carp? A DEC permit is required to obtain triploid grass carp. Our office can assist you with your application. The DEC will notify you how many grass carp you are allowed based on the size of your pond and the weed cover. You must present your permit when picking up your triploid grass carp.

Check out our website for the NYSDEC Grass Carp Permit & Farm Pond License Applications

Species	Price	Quantity	Total Cost
~Feel free to inquire about other species~			
Largemouth Bass 3-5"	\$60.00 / 25		\$
Channel Catfish 4-6"	\$30.00 / 10		
Fathead Minnows 1-3"	\$22.00 / 100		
Blue Gill 3-5"	\$60.00 / 25		
Perch 3-5"	\$60.00 / 25		
	Add 8% Sales Tax on above subtotal		
Triploid Grass Carp 9-11" (DEC permit required — please include copy of permit with order)	\$20.00 each (No tax on grass carp)		\$
TOTAL			\$

Name		Best daytime phone to reach you
Address	City ZIP	E-Mail Address
Diaman and any distribution of any		

Please return this order form along with your check payable to Genesee Co. SWCD and your grass carp permit, if required, to:

Genesee County Soil & Water Conservation District 29 Liberty Street, Suite 3, Batavia, NY 14020

Any questions, call us at (585) 343-2362

Remove and complete this page and return to the address below.



GENESEE COUNTY SOIL AND WATER CONSERVATION DISTRICT

29 LIBERTY STREET, SUITE 3 BATAVIA, NY 14020 (585) 343-2362 WWW.CO.GENESEE.NY.US/DEPARTMENTS/SOILANDWATER

2015 CONSERVATION TREE & SHRUB ORDER FORM		OFFICE USE ONLY ORDER #	
NAME			
STREET ADDRESS			OFFICE USE ONLY
CITY/TOWN	STATE	ZIP	RECEIPT #
PHONE NUMBER			Please make checks out to:
EMAIL ADDRESS			Genesee Co. SWCD 29 Liberty Street, Suite 3
2015 TRFF & SHRUR ORDER FORM			Batavia, NY 14020

ZUIS TREE & SHRUB URDER FURIVI Batavia, N1 14020				
QUANTITY	ITEM DESCRIPTION Please Print		UNIT PRICE	ITEM TOTAL
AVAIL	R DEADLINE: APPLE TREE ORDERS NO LONGER LABLE, *APRIL 1st, 2015 FOR OTHER ITEMS* TAX INCLUDED IN PRICE WHERE APROPRIATE	OTAL		

*ORDERS PLACED AFTER DEADLINE MAY BE FILLED UNTIL SUPPLIES LAST, BUT CANNOT BE GUARANTEED. QUANTITIES ARE LIMITED, THE DISTRICT RESERVES THE RIGHT TO SUBSTITUE SPECIES OR REFUND PAYMENT IF UNAVAILABLE. DISTRIBUTION IS IN MID-APRIL, YOU WILL BE NOTIFIED OF THE PICK UP DATE. PLANTS ARE SOLD FOR CONSERVATION PURPOSES ONLY. THE DISTRICT IS NOT RESPONSIBLE FOR ORDERS NOT PICKED UP OR FOR THE SUCCESS OR FAILURE OF THE PLANTS. PLEASE CALL OUR OFFICE AT 585-343-2362 FOR ANY QUESTIONS. ATTACH ADDITIONAL PAPER TO ORDER FORM IF EXTRA SPACE IS NEEDED.

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