MONROE COUNTY SOIL & WATER CONSERVATION DISTRICT

THE CONSERVATION CONNECTION

News from MCSWCD

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Providing Today, Protecting Tomorrow

Conservationist of the Year Award

David Lindsay receiving his award with Director Kelly Emerick, Legislator Steve Brew (left) and Legislator Mike Zale (right).

The District awarded David Lindsay with the Conservationist of the Year award on August 12, 2017 at this year's annual Celebrate Agriculture Dinner. Dave graduated from Penfield High School and went on to study civil engineering at Rochester Institute of Technology. He has spent nearly 25 years working on highway transportation and bridge projects, stormwater management system design, and various environmental projects. Dave started his career in the private sector where he obtained his Professional Engineering License. He later moved on to his current position as the Commissioner of Public Works/ Superintendent of Highways, Stormwater Management Officer and Floodplain Administrator for the Town of Chili. Over the last decade, he has greatly supported the MCSWCD's Stormwater Management Program, where he defends the technical services provided to assist Chili and other communities with their stormwater management needs. Dave has partnered with the Soil and Water Conservation District to complete conservation projects to protect natural resources. With Dave's leadership, the Town of Chili was able to successfully complete 3 large-scale streambank stabilization projects on Black Creek, and continues to demonstrate commitment to put more conservation on the ground. We are honored to award David Lindsay with the 2016 Conservationist of the Year award and are looking forward to working with him on many more projects in the future.

New Watershed Agricultural Coordinator

Stephanie Castle recently joined the MCSWCD as the Genesee River Watershed Coalition Agricultural Coordinator. Stephanie will be working with 10 Conservation Districts in the Genesee River basin to promote good land management practices throughout the watershed. She moved to the Rochester area from Burlington, Vermont where she spent the past six years managing water quality projects on Lake Champlain. Prior to her work in Vermont, Stephanie worked on dam removal projects in Maine and Washington state. She has a bachelor's degree in Environmental Science from Franklin and Marshall College in Lancaster, PA, and a master's in Geoscience from Boston College. Stephanie grew up on a small beef farm in central Pennsylvania and is excited to work with farmers and landowners in the Genesee River watershed. Welcome Stephanie!

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2017 District Dates & Deadlines

October 4
Fish Stocking Program Distribution

October 10
4 Hour Erosion & Sediment Control Training
Town of Parma

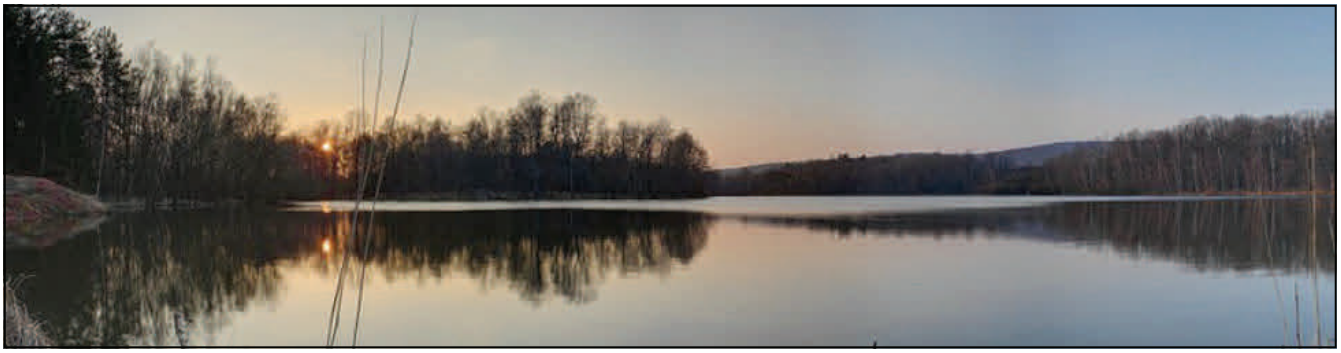
November 8
4 Hour Erosion & Sediment Control Training
Town of Chili

Attention All Pond Owners!

Don't forget to submit your order form for the **October 4th Fall Fish Stocking distribution! The event will be held between 11:00 AM– 12:00 PM at our office (145 Paul Rd Bldg 5, Rochester NY). Order forms are due on Thursday, September 28, 2017.** Please remember to bring your own containers with **at least 20 gallons** of water from your pond to transport your fish home. Also, bring a cover to reduce water loss while traveling and keep your fish from jumping out of the container.

If you didn't get a chance to order this fall, we'll have a program in the spring, typically in May or June. Our **Fall 2017 Fish Stocking Program** will include Triploid Grass Carp (shown below), which are commonly stocked to help control submerged vegetation. **Note that Triploid Grass Carp are stocked by permit only through the NYS Department of Environmental Conservation (NYS DEC)**. You will need to apply and be approved to stock prior to placing an order. For those interested in Triploid Grass Carp please contact the NYS DEC Fisheries Department at (585) 226-2466 or visit their website for application details.

The District Fish Stocking Program offers several varieties of fish including: fathead minnows, perch, triploid grass carp and others. Along with offering live fish, we also offer bags of fish food to help your fish acclimate to their new home, and barley straw to inhibit new algae growth, and fish habitat spheres to help reduce predation on your pond fish! More information about the our Fish Stocking Program can be found on our website at www.monroecountyswcd.org. If you wish to be added to our mailing list to receive the Spring 2018 Fish Stocking Program information, please contact the office at (585)753-7380 or email Josh LaFountain at joshlafountain@monroecounty.gov.



Monroe County Celebrates Local Agriculture!

The Celebrate Agriculture Dinner is held each year through a partnership between the Monroe County Soil and Water Conservation District, Monroe County Farm Bureau, and Cornell Cooperative Extension of Monroe County. This year's dinner was held on August 12th at the Clubhouse at Durand Eastman Golf Course. The event was a tremendous success with over 130 hungry individuals attending! This event is all about celebrating agriculture and the promotion of agricultural education. People join together to enjoy locally grown food from Monroe County businesses and farms. Raffles and a silent auction also took place throughout the night, where proceeds went towards the Farm Bureau Agricultural Youth Scholarship. Earnings from the 50/50 raffle went to the 4-H Cornell Cooperative Extension of Monroe County program. Thank you to everyone who attended this great event and to all of our sponsors for their generous donations.

To enjoy some pictures from this event, look on the next page of this newsletter!

Photos from the Celebrate Agriculture Dinner

2017 Outdoor Environmental Education Event was a Blast!

A convergence of those with knowledge and those that would like to know; otherwise known as the Conservation Field Days. This year's event took place at Ellison Park on September 19, 20, and 21. This event is a huge undertaking for our District. At our 29th annual Conservation Field Days, over 1378 students from 16 different schools within Monroe County were in attendance.

Students work with volunteer Mary Jane Wenner to create art from outdoor scraps, such as leaves, sticks, acorns, and pinecones.

The Monroe County Soil and Water Conservation District would like to offer our thanks to those that participated as instructors to teach local students about the many environmental topics offered. We couldn't have done it without you! Great thanks also goes out to the teachers and schools involved in helping to ensure a high level of participation. Lastly, thank you to the Monroe County Parks Department, Wegmans, and Marathon Engineering for supporting this wonderful event!

Each year the Monroe County SWCD hosts this interactive environmental education event for 5th and 6th graders throughout Monroe County. We recruit professionals from various environmental fields to volunteer to teach and raise awareness about current topics and issues. This year, instructors came from agencies such as the University of Rochester Medical Center, Rochester Institute of Technology, Monroe County Department of Environmental Services, Stormwater Coalition of Monroe County, and many more. Topics ranged from classic conservation topics, including renewable energy and recycling, to eye opening sessions such as outdoor scrap art and hospital waste management. This event gives students an opportunity to learn about the environment through hands on activities while enjoying the outdoors at Ellison Park. We take pride in offering a truly unique, fun filled and valuable learning experience for our young "future conservationists." If you are interested in being involved in next year's Conservation Field Days event, please contact Karen Ervay or Josh LaFountain at: 753-7380 or directly at: karenervay@monroecounty.gov or joshlafountain@monroecounty.gov to find out what you can do to help!

A student holds a plasticized human brain during a session about hospital waste management instructed by Brad Miller from the University of Rochester Medical Center.

A Special Thank You to Our Conservation Field Days Team

Thank you to our instructors, volunteers, and sponsors:

Kaeti Stoss, Mary Jane Wenner, Norma Platt, Peter Castronovo, Harvey Limbeck, Keith Egnor, Garret Koplun, Jack Watson, Jarmila Haseler, Janine Fyfe, Tina Stevens, Mark Almekinder, June Summers, Joe Magee, Kevin Berend, Evan Lowenstein, Karl Korfmacher, Ron Schroder, Andie Graham, Hailey Richmond, Brad Miller, Jack Watson, Maureen Russell, Chuck Dilella, Tiffany Clay & Cassandra, Scott Dean, Betsy Ukertis, Evan Lowenstein, Alex Silva, Kira Hansen, Juliana Smith, Mary Ann Cady, Lois Dannenberg, Jenny Lundberg, and Patty Wakefield.

MARATHON ENGINEERING

Wegmans

Monroe County Parks

In Memory of Selden Chase

For over 25 years, Selden Chase was an active, dedicated and insightful Board of Directors member for the MCSWCD. He helped shape the District into what it is today, and influenced many agricultural programs that are still carried out today.

Selden's approach to farming was to try and make savvy business decisions while protecting the environment. He was a huge advocate for the District's mission. In the early 2000's, he was one of the District's first participants in the Agricultural Environmental Management Program where he accomplished planning and implementation of conservation practices on his over 700 acre farm, such as crop rotations, conservation tillage and cover cropping, to prevent soil erosion & protect water quality. It has been said by other farmers in the community that he was trying to preserve the soil for us and future generations.

He was recognized as the 2010 Conservationist of the Year by the District, as well as receiving a Merit Award in 2011 from the New York Association of Conservation Districts.

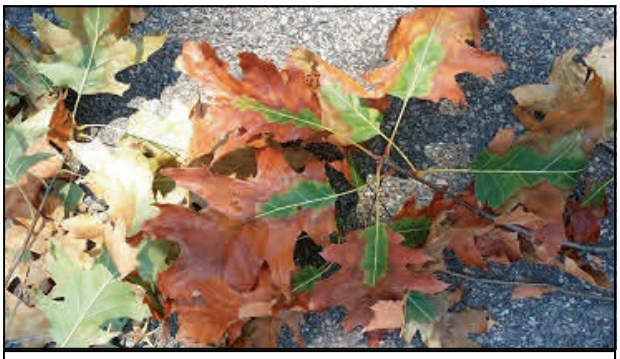
Selden started his farming career at an early age raising sheep on his grandfather's farm and later purchased the family's greenhouse business in 1952 where he and his wife Marilyn worked to further build the farm focusing on growing high quality flowers and crops while minimizing the risk to the environment. In addition to his involvement with the MCSWCD, he was an active member of his community as the Town of Rush Councilman for 16 years and a key Board member throughout the years for the Monroe County Farm Bureau, Monroe County Farmland Protection and the Cornell Cooperative Extension of Monroe County.

We were all very sorry to hear of his recent passing, as Selden was like family to the Soil and Water Conservation District. He was truly valued, respected and will be greatly missed. There aren't too many left in the world like Selden.

Watch Out For Oak Wilt!

What is Oak Wilt?

Oak wilt is a disease that specifically targets oak trees. It is caused by *Ceratocystis fagacearum*, a fungus that develops in the xylem (the cells that carry water up from the roots within the tree). All species of oaks are effected by this fungus, but red oaks often die much quicker than the white oaks. It takes a few weeks to 6 months for a red oak to die while it can takes years for white oaks to succumb to oak wilt. White oaks also have a lower risk of spreading the disease. The reasoning behind these differences is not well understood, but the effects of this disease is detrimental.



Fallen oak leaves from Oak Wilt

Why is it a problem?

Oak Wilt is a problem because the fungus blocks the flow of water and nutrients traveling up from the roots to the leaves of the tree. This causes the tree's leaves to wilt and eventually kills the tree, essentially by starving the tree. Given the large numbers of oak trees in this region, a large die off could drastically alter ecosystem functions and potentially cause safety concerns as dead trees fall.

Where has Oak Wilt been found?

Oak Wilt has been reported in much of the Eastern United States. In New York it has been identified in multiple locations downstate. However, locally only one known case has occurred in Canandaigua and is currently being treated. It was first detected in the Great Lakes Region and has since spread. It is unknown where the fungus that causes Oak Wilt originated as no other country has reported it before.

Fungal spore mat underneath the bark of an oak tree

How it spreads:

Oak wilt can spread through the roots of adjacent oak trees. Since roots of nearby oaks can fuse together (graft), nutrients and disease can move between the trees. It can also spread through sap feeding beetles and bark beetles. The beetles are attracted to a sweet odor that the fungus emits, as they crawl along the fungus, it attaches to their bodies and they later carry it to other trees, infecting them through open wounds. This poses a concern as oak trees do not need to be nearby for the disease to spread.

How you can tell if your trees have Oak Wilt:

The symptoms of oak wilt are very noticeable:

- The leaves will suddenly wilt or start to turn brown, starting at the outer edge and moving inward.
- Leaves may fall during the spring or summer (may be brown or still green).
- Entire branches may dieback, starting at the top of the canopy and moving downward toward the trunk.
- Fungal spore mats may form under bark, causing the bark to raise and split.

What you can do:

To prevent the spread to new trees, **avoid pruning oak trees in the spring and summer**. Prune oaks in the dormant months of winter instead. If your tree becomes wounded, dress it immediately with latex paint otherwise the sap it releases may attract beetles carrying the disease. If you notice any of these symptoms and think your tree or trees in your area may be infected, contact New York State Department of Environmental Conservation Forest Health.

For more information on Oak Wilt, how to prevent it and how to identify it, visit http://www.dec.ny.gov/lands/46919.html

Fall Conservation Tips For Your Home

Every fall Monroe County is covered with leaves from thousands of trees. While burning leaves in New York State is illegal and driving leaves to the dump can be time consuming, there are many green alternatives to keep your yard looking nice this fall.

Leaf Removal

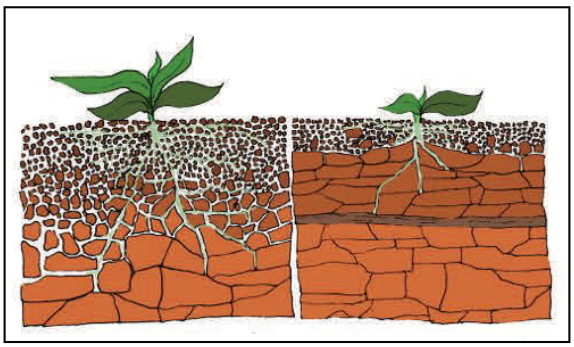
Bulky piles of leaves will take a long period of time to decompose. However, proper composting techniques can be used to speed up the process. Alternatively, dry leaves can be raked into short piles and shredded using a mulching mower to reduce decomposition time. Shredded leaves can then be applied to your lawn (no more than ¾'' deep) or simply added to your compost pile. Leaves can be used to cover soil in vegetables gardens for a prolonged wintertime harvest and then tilled into the soil in the springtime in order to increase available nutrients. Similarly, shredded leaves make excellent mulch for flower gardens, enhancing soil quality.

Several local municipalities also provide seasonal programs that handle leaf disposal. For example, the City of Rochester collects leaves as a part of their Materials Give Back Program. After they provide free curbside leaf collection, the leaves are composted at the ecopark located at 10 Avion Drive, Rochester, NY, and then the compost is offered back to the public for free. Additionally, ecopark uses the compost to help county flower gardens grow. Check your local municipality's website for instructions and scheduled leaf collection dates. Curbside composting services are also provided by a private company for a monthly fee. Check out www.monroecounty.gov/ecopark or www.communitycomposting.org for more details.

Composting

Another way to be green this fall is to start a compost pile! Compost is a productive way to enrich your soil and reduce waste. Yard trimmings, fallen leaves, kitchen scraps, and wood chips can be used to start a compost pile. Make to sure place food waste in between layers of yard clippings to provide insulation and decrease the number of unwanted pests. Keep the pile moist with water and occasionally rotate the pile to provide oxygen to essential microorganisms. Compost can take six months to a year before it is ready to be used for gardening. For more information on composing visit: http://cwmi.css.cornell.edu/composting.htm.

Soil Degradation From Compaction on Agricultural Lands



Compaction is the compression of soil particles into a smaller volume, reducing the pore space available for air and water. Soil compaction can be a serious and unnecessary form of soil degradation that can result in increased soil erosion and decreased crop production. Soil compaction can occur in two forms. It can occur at the surface in the form of soil crusting or it can occur in the subsoil.

Surface Crusting

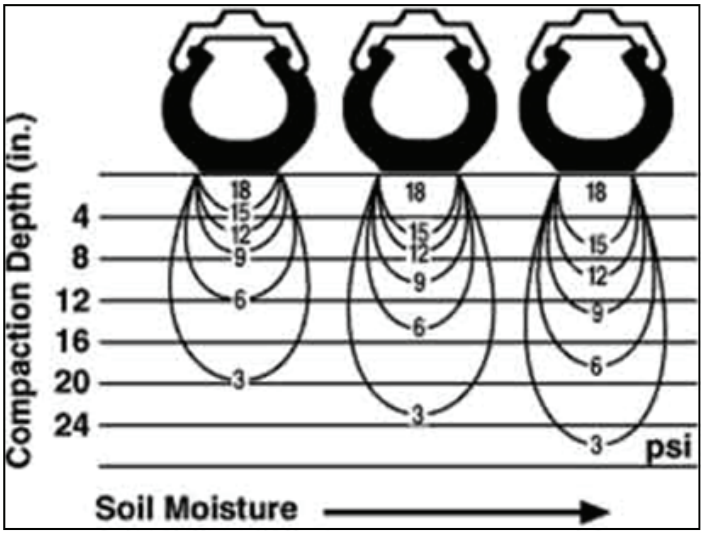
Surface soil crusting is the result of bare soil exposed to precipitation. The best way to prevent crusting is to minimize tillage and keep crop residues on the surface. Excessive tillage breaks down the granular structure of the soil and buries much of the protective residue. Rainfall then causes smaller soil particles to become suspended in water flow and then dry into a hard surface crust. This crusted soil restricts water infiltration causing excessive water runoff and can act as a barrier for emerging crops.

Subsurface Compaction

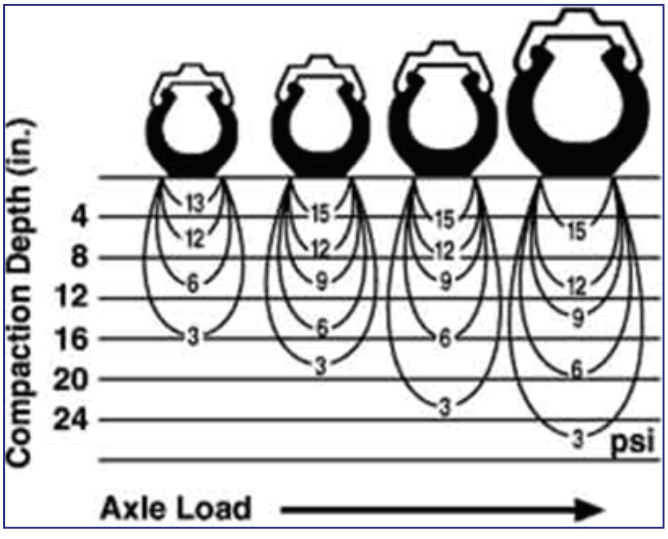
Subsurface compaction is usually caused by excessive tillage, whether disking, moldboard or deep ripping; repeated plowing at the same depths creates a "plow-pan" that forms over time. This can cause a root restrictive layer resulting in stunted crop growth and decreased water infiltration. Operating equipment with heavy axle loads or in wet soils will also cause excessive subsurface compaction.

Best Management Practice Solutions

- Using deep rooted crops such as alfalfa or rye grass helps to break up soil compaction
- Minimize farm traffic when soils are wet
- Use lower tire pressure or tracked equipment
- Increase soil organic matter to promote soil structure
- Keep crop residue on surface to prevent soil crusting



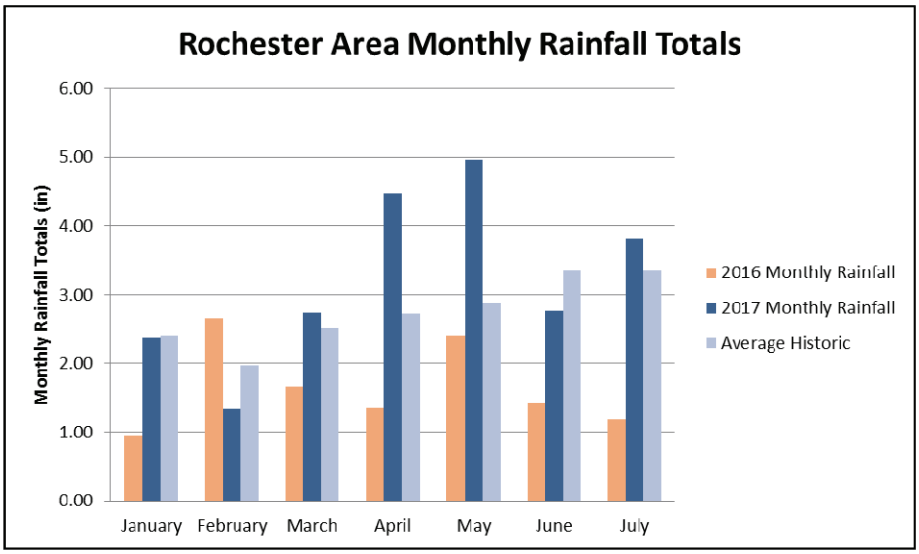
Compressive force relative to soil moisture and compaction depth.



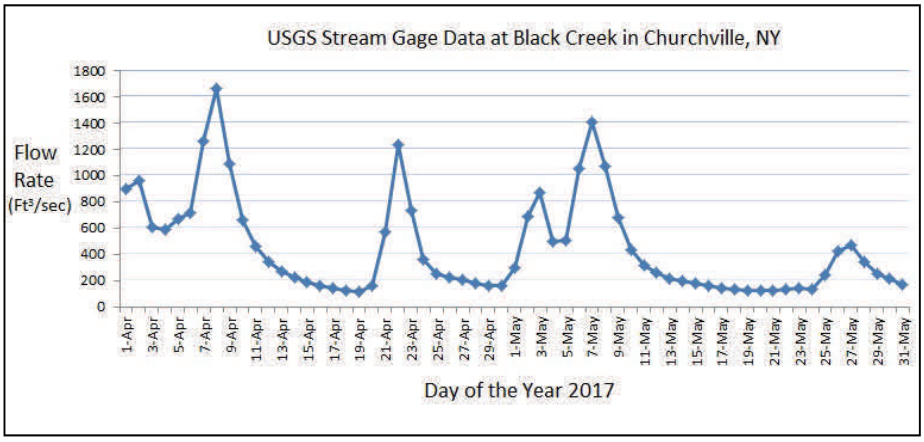
Compressive force relative to axel load and compaction depth.

Rainfall and Its Effects on Rochester Area Waterbodies

We had very wet weather during March, April, and May this year. The total rainfall for these months were well above average for our area. Looking at the graph to the right, you can see a stark contrast from this years rainfall (dark blue) compared to the rainfall amounts we had last year (orange) during the drought. This year was the opposite with many months above the average. Several times this year we have experienced over 1 inch of rain in a 24 hour period. This amount of rain has a large effect on our local waterbodies.



Looking at the graph for the Black Creek, Churchville United States Geological Survey stream gauge in the months of April and May, you can see that the amount of water flowing through the creek varies substantially overtime. This variation is due to changes in the amount of water entering and discharging from creek. When it rains, water flows across the land until it reaches a waterbody. Depending on where each raindrop lands, it can take longer for some of them to reach the stream, as every path to the creek is not the same. The stream flow rate increases as more raindrops reach the creek. This is due to the cumulative rainwater from the draining area reaching the creek. After a rainstorm, the graph to the left peaks, showing the effect of rain on this waterbody.



If the stream does not have the capacity to handle all the water that flows into it, the height of the water may rise and flooding may occur along the banks of the creek and surrounding low-lying areas. As more water enters the creek the velocity of the water will also increase as the flow rate of water increases. This faster moving water can cause increased streambank erosion. As a result, issues can arise with flood waters, causing damage to developments (as we have noted in many locations around the county), accelerated erosion leading to land loss, as well as nutrient and sediment accumulation in our waterbodies.

Thomas Creek after storm event.

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