

Conservation Crier

Vol. 28, No. 1
Spring 2019

Newsletter of the  LANCASTER COUNTY CONSERVATION DISTRICT

TREE SALE 2019

ADMINISTRATOR'S CORNER

45 Years and Growing

In 1974 the American Motors Corporation produced the two door Gremlin, a subcompact car at the economic cost of \$2,080. *The Way We Were* topped the music charts. Milton Bradley introduced a board game that had players strategically drop checker like pieces into a vertical board to *Connect Four*. About the time the Miami Dolphins earned the Superbowl Championship in 1974, the Lancaster County Conservation District board was getting ready to launch the 1st Annual District Tree Seedling Sale.

The District board, made of up 9 volunteer members, worked with a local nursery to sell bundles of conifers via mail orders. They along with the District staff of approximately 3 people set up a customer pick up location at Park City Mall. Four years after the first Earth Day celebration in 1970, the tree sale was planned as a way to increase soil stabilization, wildlife habitat, and backyard beautification.

The mission of the Tree Sale has changed little in 45 years however; the impact of the sale has grown 10 fold. Today a sure sign of spring is the mailing and posting of the tree sale order form. Your commitment to purchasing seedlings and planting them throughout Lancaster County or the state continues the program founders' initial ideas of creating a healthier landscape for future generations. We're glad to recognize the longevity of the program and look forward to another 45 years.

—Chris Thompson, Administrator

District Director Remembered

Conservation District Director, Richard Shellenberger passed away January 21, 2019. Dick served as a Director on the board for 6 years. He was an advocate and enthusiast of conservation efforts throughout Lancaster County. His family shared that his passion for conservation was often a part of conversations at the dinner table or a car ride pointing out Conservation District projects to improve water quality. His support of conservation education was a pillar to the Lancaster County Youth Conservation School. Community service was a part of his work and family life striving to make a difference. We share our deepest sympathy with his family. His interest in helping others to appreciate the benefits of conservation lives on in the projects and programs implemented by the Conservation District.



New at 2019 Tree Sale

The Lancaster County Conservation District is pleased to host the 45th Annual Tree Seedling Sale, April 11, 2019. Paging through this newsletter you'll find descriptions of the species offered this year along with the pre-pay order form. All trees and perennials are pre-ordered with orders due Monday, March 11, 2019. Orders will be ready for pick up during a one day distribution, Thursday, April 11, 2019 from 8 AM – 7 PM. New to the sale this year is Coralberry, a hardy fast growing shrub with a bright berry that holds into the start of winter. This is also the first year the sale offers two varieties of raspberries. Raspberries have been a growing favorite. The prelude variety will ripen early, while the encore variety will carry flavor into the summer. Three fruit tree varieties join the list this year. Montmorency sour cherry trees will add showy spring flowers to your planting setting. This variety of sour cherry is self-pollinating. Both the Klondike white peach tree and coral star peach tree are also self-pollinating. Peruse through the newsletter to learn more about the Tree Sale and additional activities and services of the Conservation District.

The Tree Seedling Sale is meant to benefit our customers, protect our natural resources, boost wildlife conservation, and create a world of difference for future generations. Additional order forms are available at www.lancasterconservation.org.

—Matt Kofroth & Sallie Gregory, Tree Sale Committee Co-chairs

Tree Sale Pick Up

Thursday, April 11, 2019 • 8AM – 7 PM
FARM AND HOME CENTER AUDITORIUM
1383 Arcadia Rd, Lancaster PA

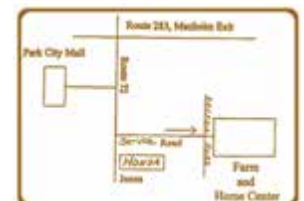
Your investment in the Tree Sale also allows the Conservation District to continue valuable education programs relating to watersheds, wetlands, and conservation practices. Thank you, we look forward to working together.

West of Lancaster

Rt 30 East to Rt 72 (1st Exit Past Park city)
Turn right at ramp stop sign.
Turn left at Jones Honda dealership. (Service Rd.)
Go straight at stop sign to enter Farm and Home parking lot.

East Of Lancaster

Rt 30 West to Rt 283 West to Rt. 72. Turn left on Rt. 72 going South under the Rt. 30 bypass.
Turn left at Jones Honda dealership. (Service Rd.)
Go straight at stop sign to enter Farm and Home parking lot.



—Sallie Gregory, Matt Kofroth, Committee Co-chairs

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Nate Straw, *Watershed Assistant*
Allyson Gibson, *Clean Water Partners Coord.*

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Kefeni Kejela, *Soil Conservation/District Conservationist*
Gary Ballina, *Civil Engineering Tech*
Mark Myers, *Soil Conservationist*
Sally Barnes, *Soil Conservation Tech*
Meeghan Orr, *Program Assistant*
Ashley Spotts, *Restoration Specialist-CBF*
Jeff Sholly, *TAG Engineer*
Jenna Emore, *Wildlife Biologist, Pheasants Forever*

Lancaster Co. Conservation District

1383 Arcadia Rd., Room 200
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Phone: 717-299-5361 Fax: 717-299-9459
www.lancasterconservation.org

Youth Conservation School

APPLY TODAY



The Lancaster County Youth Conservation School will take place July 21-27 celebrating 41 years of education beyond the backyard. Open to students ages 14-16; this is a summer adventure worth taking.

The Lancaster County Conservation District along with local Sportsmen's Clubs proudly offers a weeklong summer field school focusing on outdoor activities and conservation of our natural resources. Students reside at the school with tents and cots to demonstrate low impact camping at the Northern Lancaster County Fish and Game Protection Association in West Cocalico Township.

Motivated students should apply. Students gain knowledge about wildlife and conservation, leadership experience, and communication skills. There are many study topics to empower students, ensuring a sustained conservation legacy. Topics include stream restoration, forestry, canoeing, wildlife management, archery, survival, and firearm safety. Students will have the opportunity to meet professionals in various environmental and conservation related fields and discuss career options with them.

Students benefit from generous County Federated Sportsmen's Clubs and Community Organizations who provide 90% of the YCS tuition. Students are responsible for a \$25 registration fee. To receive an application, contact the Conservation District at 717-299-5361 x.5 or click www.lancasterconservation.org by June 15.

—Sallie Gregory, *Education Coordinator*



Welcome Eric Hout

Eric Hout is a Resource Conservationist with the District. As a Resource Conservationist, he reviews Erosion Control and Post Construction Stormwater Management plans, and conducts field inspections. He is a 2015 graduate of Millersville University, where he received a Master of Science degree related to Environmental Management. Prior to joining the Lancaster County Conservation District, Eric previously worked for 3 years with the Berks County Conservation District in a similar role.

Lancaster County Envirothon 2019 A Natural Challenge for Students

The Envirothon is an annual competition in which elementary, middle school, and high school teams compete for recognition by demonstrating their knowledge of environmental science and natural resource management. The teams, each consisting of five students from participating schools, exercise their training and problem-solving skills in a competition centered on testing categories: soils/land use, aquatic ecology, forestry, wildlife and current environmental issues. High School teams have the added component of an Oral Presentation that allows the students to use critical thought to solve a complex environmental problem and present their solution to a panel of judges.

Study materials are provided at all levels. Teachers interested in registering their students in this unique academic competition may contact the Conservation District at 717-299-5361 x.5 by March 1, 2019. Visit www.lancasterconservation.org for more information.

Lancaster County Senior High Envirothon (Grades 9 - 12) – Thursday, April 25, 2019

Lancaster County Junior Envirothon (Grades 3, 4, 5, and 6) – Wednesday, May 8, 2019

Lancaster County Middle School Envirothon (Grades 7 and 8) – Tuesday, May 9, 2019

—Sallie Gregory, *Education Coordinator*



Dirt & Gravel/Low Volume Road Program Project Spotlight

Throughout Lancaster County numerous water quality improvement projects are making a difference locally. We would like to highlight two projects from the Dirt & Gravel & Low Volume Roads Program that demonstrate this point.

Lititz Borough's Blackberry Ln. Low Volume Rd. Project

Late last year Lititz Borough completed a Low Volume Rd. project on Blackberry Lane that captures stormwater runoff from two neighboring streets and directs it into a small managed rain garden for water quality improvements. The project was a partnership between the Borough and a neighboring church where the rain garden is located. The project satisfies some of the borough's Municipal Separate Storm Sewer System (MS4) requirements and also improves local water quality by reducing the volume of stormwater coming from nearby streets to the borough's stormwater system. The borough has worked with the Low Volume Rd. program for several years completing similar projects throughout the watershed. All projects include fore bays that can be cleaned out by public works staff, vegetative infiltration areas, and high flow overflow areas that are able to convey excessive storm surges. All of this in the name of improved water quality in nearby Lititz Run.



Before picture



After picture

If you have any questions about the Dirt & Gravel/Low Volume Rd. Program please feel free to contact the Conservation District at 717-299-5361 x.5.

Eden Township's Hess Rd. Dirt & Gravel Rd. Project



Before picture



After picture

This past summer Eden Township completed a culvert replacement project on Hess Road, a Dirt & Gravel Rd. in the southern part of the municipality. Hess Road includes a small unnamed tributary to Bowery Run that parallels the road for most of its way except for two sharp turns in the stream where the stream crosses under the road. During heavy rain events, this small tributary stream swells and floods over Hess Road. When this tributary floods the road gravel from the road's surface is deposited in the nearby stream system causing issues for aquatic life. For this reason Eden Township used their Dirt & Gravel Road funds to expand and realign a new stream crossing culvert along the tributary to reduce the flooding potential. To-date these fixes have worked wonders on the road and the stream system. The tributary, the roadway, and the overall watershed all illustrate the improvement.

Lawn Fertilizer

This time of year, people aren't often thinking about their lawn, but you might be surprised how much activity is happening under your grass in this pre-spring season. Farmers know that correctly managing nutrients in the soil not only minimizes runoff (which helps to keep local streams healthy), but it also impacts their bottom line at harvest time. Many farmers regularly soil-test their fields and keep track of yields so that they are not over-applying nutrients. Unfortunately, the nutrient needs of front and backyard lawns are often not managed as closely.

The best time of year to test soil and apply fertilizer is in early fall. This gives the grass time to grow strong roots over the winter and wake up healthy in the spring. As a bonus, grass that has a good head start will also better crowd out weeds that are always ready to compete for space.

Additionally, a mower that mulches the clippings and returns them to the soil will keep the nutrients from depleting more quickly. Adjusting the height of the mower deck can impact the health of your grass. If your lawn is the more common tall fescue variety, it is recommended to raise the mower to 4 inches or higher over the summer months. The taller the grass leaf, the deeper the roots.

Before buying fertilizer, it's a good idea to know if there are nutrients that are deficient in the lawn or if the pH is in the range for the grass to best absorb and use those nutrients. Most types of fertilizer spread on lawns from the lawn-and-garden store focus on nitrogen. Nitrogen will make grass grow fast, but not necessarily healthy. Even though you might have greener grass that you need to cut more often more nitrogen might not be the best plan for the soil under your feet. For the health of your soil and our streams, consider testing your soil to know its nutrient needs, adjusting your mower to mulch and mow longer grass, and dialing back on the amount of fertilizer recommended on the package.

—Steven Reiff, Ag Conservation Technician





Milkweed

Riparian Buffers – More Than Meets the Eye

A Riparian buffer stands out as the vegetated area of forest near a stream or waterway. Just as a natural forest works best with varying layers from ground to canopy a similar effect is vital to a working riparian buffer. Once this type of buffer is established

near a stream, the sum incorporates working parts in the form of shrubs and trees. While trees are often the first to be noticed with height, fruit, and a wide variety of leaf patterns; just below the shrubs are working away.

Shrubs are an important component of a forested riparian buffer planting. Shrubs can grow in all different zones of a riparian buffer. The first zone which is located at the water's edge provides stabilization while shading the stream. Shrub leaf litter is a food source for macroinvertebrates in the stream and branches can provide hiding places for mammals, insects, and even fish if the branches dip into the water. The buffer creates a shaded stream and in turn cools the water temperatures. This zone is generally at least 15 feet wide. Bats can use this zone to forage for insects along the water. King fishers, a stream side burrowing bird will use branches along the stream to search for fish. Larger shrubs that can be seen in this area include: Red Osier Dogwood, Gray Dogwood, Buttonbush, Silky Willow, Elderberry, Speckled alder (shade intolerant), and Arrowwood.

Gray dogwoods grow to heights of up to 12 feet. The shrub flowers in early summer and produces fruit in late summer. It is beneficial to songbirds and small mammals. Elderberry can grow up to 12 feet tall; it has a white flower in the early part

of the summer, and later begins to produce a cluster of purple/black berries in the late summer. The fruit is eaten by over 48 songbird species and is edible to us as well. Red Osier dogwood is an important plant when it comes to bank stabilization and can be a dense habitat for wildlife. Arrowwood Viburnum grows to heights of 10 feet; it grows in full sun to partial shade. This shrub is beneficial to birds and butterflies and can be grown near Black Walnut trees.

The second zone should be planted with a diverse group of native faster growing, smaller, shade-tolerant tree and shrub species. This zone allows water runoff to be absorbed and held in the soil. Nutrients and other pollutants are also filtered by the soil. Zone 2 can range from 20 to 60 feet in width. The trees and shrubs should offer winter cover and stopovers for migrating animals.

Nannyberry is a good shrub for the second zone. It provides cover for wildlife; the fruit is a source of food for wildlife. Winterberry provides food for birds during the colder months. It can grow in areas of full sun to shade. Another shade tolerant shrub is the Spicebush. The Spicebush grows in wooded areas, and forested floodplains. All parts of the Spicebush are edible, and it has a high wildlife value for birds, small mammals, and butterflies. Blackhaw Viburnum grows in full sun to full shade. It has a high value for both small mammals and songbirds. The fruits are edible and can be preserved.

The zone farthest from the stream and closer to areas which can include houses, crops or pastureland, can be planted with native grasses like Switchgrass or Indian Grass or wildflowers which include Bee Balm or Butterfly Milkweed, and other native herbaceous plants. These plants slow fast-moving water runoff and filter sediment. This area could be used by grassland birds or hummingbirds looking for nectar as well as butterfly and moth species. If you're planning to add to or start a riparian buffer remember layers in each planting zone will foster a vibrant multi-use space that benefits you and everyone that lives downstream.

–Ashley Spotts, Streambuffer Specialist - CBF

DID YOU KNOW...

OAK – The scientific name of *Quercus*, or oak is said to derive from the ancient Celts meaning *quer* (fine) and *cuez* (tree) and is known as the “chief forest tree of England.” It is known for its slow growth, large size, hardness, and toughness. Traditionally, bark from the oak tree was used as an astringent and antiseptic for common ailments.

EASTERN WHITE PINE – Among one of the most important trees for almost every sort of constructional work, pine is noted for its strength, straight trunks and grain. The resin from pine trees has been noted to help with illnesses of the respiratory system when used as a liniment plaster.





Spring is Around the Corner and So Are Spotted Lanternflies!

Last year was a big year for the Spotted Lanternfly. The leafhopper began to disperse further out into the state and find its way into Lancaster County. From the media to our backyard, it was almost impossible to not see the Spotted Lanternfly; though, right now you would have a hard time seeing one. By the time winter begins, the adult Spotted Lanternfly has already laid its eggs. The eggs will survive winter, but the adults will not. With spring just around the corner, it is important to get ahead of the Spotted Lanternfly and you as a homeowner can help.

The best way to help is to find and destroy egg masses on your property. The egg masses are about 1 inch long and have a light gray, mud-like covering, which over time can look dry and cracked. As it gets warmer the egg masses lose their covering and reveal seed-like eggs. The egg masses are laid on smooth surfaces such as trees, stones, and manmade items such as vehicles, yard furniture, or any other items stored outside. If you saw adult Spotted Lanternflies on your property last year try to think of where they were, chances are they may have laid eggs there. When you do find egg masses you can scrape them off with a plastic card, like a credit card or another flat object, into a bag or container filled with isopropyl alcohol or hand sanitizer. The egg masses can also be smashed.



Spotted Lanternfly Egg Masses - Fresh Freshly laid egg masses, which are about 1" long and laid on hard surfaces, including trees, stones, patio furniture, etc. The egg masses are covered in a white putty-like substance, which age over time to look like cracked mud. Image by Erica Smyers.



Spotted Lanternfly Egg Masses - Old Old egg masses, which have the putty or mud-like covering worn off. Here, you can see each individual seed-like egg. Image by Pennsylvania Department of Agriculture.



1. Leaf. Photo Dave Jackson
2. Leaf Margin. Photo: Dave Jackson
3. Seeds winter : Photo: Dave Jackson
4. Bark. Photo: Dave Jackson
5. Sumac on the left, Tree-of-Heaven on the right, by Ryan Hasko
6. Close up of seeds (samaras). Photo: Dave Jackson

Also check your property for the invasive Tree-of-heaven (*Ailanthus altissima*). This tree is the preferred host and is an important tool to manage Spotted Lanternflies. Tree-of-heaven resembles black walnut, hickory, and staghorn sumacs. It has compound leaves, meaning there is a long central stem with leaflets attached on either side. The leaves can be 1-4 feet in length and have 10-40 leaflets. The leaf edges on the Tree-of-heaven are smooth except for one or two teeth at the base while the native trees edges have teeth. The bark has a cantaloupe like appearance and when its leaves and other plant parts are crushed it is said to smell like rotten peanut butter. The female tree will produce 1-2 inch long seeds in clusters. Like maples the seeds have wing-like projections enabling it to be spread by wind. Throughout the winter you can still see clusters of the seeds hanging in the tree. Additionally the tree will put up root suckers causing dense clusters of Tree-of-heaven to grow.

If found on your property Tree-of-heaven should be removed, caution should be taken when attempting to remove as cutting or mowing the trees will result in trees sprouting up. It is best to contact a professional like a local landscape company or Penn State Extension to help develop a plan of action for removal. This could include treatments of herbicide at various times and even cutting. Once removal begins you can leave some of the male trees to be used as trap trees. These trees will attract Spotted Lanternfly and the trees can then be treated with an insecticide. Again, it is recommended that you contact a professional that can help you to identify Tree-of-heaven and set up a plan of action.

If you do spot a Spotted Lanternfly or egg masses remember to report it. You can go online to <https://extension.psu.edu/have-you-seen-a-spotted-lanternfly> to report your sighting; you can email badbug@pa.gov, or call 1-866-253-7189. For more information contact your local Penn State Extension office or Conservation District.

—Eric Knoll, Ag Conservation Technician

<https://extension.psu.edu/tree-of-heaven>

<https://extension.psu.edu/spotted-lanternfly-management-for-homeowners>

<https://extension.psu.edu/spotted-lanternfly>

<https://njudubon.org/how-to-correctly-distinguish-invasive-tree-of-heaven-from-native-sumac/>

Protecting Soil....and Wildlife

In response to a growing awareness about water quality, the variety of commercially available erosion control products has increased considerably over the past few decades from the humble straw bale found on construction sites in the 1970s. Many contractors and excavators are now quite familiar with erosion control matting.

Erosion control matting protects soil and provides stability until vegetation becomes established. Like a blanket, it absorbs the impact of heavy raindrops, and can help retain enough soil moisture to aid germination during hot, dry weather. Erosion control matting may be made of synthetic or natural materials, or a combination of both. Many types on the market suspend straw mulch in a plastic netting to keep the strands in place over the soil. Matting enhances the traditional application of loose straw mulch on tricky areas such as steep slopes and swales.

However, advancements can come with unintended consequences. Anecdotal evidence compiled by researchers at University of Wisconsin-Whitewater suggests that wildlife can become tangled in the mesh of some erosion control products.¹



Biodegradable Netting



Snake observed on erosion control matting with plastic mesh in Lancaster County

Researchers note that “snake mortality due to entanglement appears to be more common with products that incorporate plastic mesh with small, square apertures.”

Snake mortality may be reduced with products and mesh made only of plant-based fibers (jute, straw, coir, etc.) that biodegrade. It is important to note that photodegradable mesh poses the same entanglement threat as other synthetic mesh. Additionally, as synthetic mesh photodegrades or gets caught in mowing equipment, the small plastic particles can wash into waterways, contributing to the growing concern of plastic pollution in the ocean.

Traditional application of straw mulch in loose layers does not pose an entanglement risk to wildlife. This method may be sufficient for resisting erosion on flat areas. However, some site conditions call for a product that can resist more stress. In sensitive erosion-prone areas close to wetlands or waterways, DEP may require matting made of biodegradable materials. Consider the benefits of installing completely biodegradable erosion control matting on your next earth disturbance project. The wildlife will thank you.

—Emily Broich, Resource Conservationist

¹Kapfer, J.M. and R. A. Paloski. 2011. On the threat to snakes of mesh deployed for erosion control and wildlife exclusion. Herpetological Conservation and Biology 6(1): 1-9. http://www.herpconbio.org/Volume_6/Issue_1/Kapfer_Paloski_2011.pdf

Ounce of Prevention, Pound of Cure

When it comes to earth moving activities in the winter time, erosion can become a huge issue leading to sedimentation and pollution events. From hard freezes to thawing snow, it is important to always think ahead in terms of stabilization. If earth disturbance sites will lay dormant over the winter, or any earthmoving ceases for greater than four days, temporary or permanent stabilization measures should be implemented. Some stabilization measures can include installing seed and straw mulch, wood mulch, or straw netting.

When thinking about why stabilization matters, every square foot of open earth that is temporarily stabilized can help prevent an even larger amount of potential erosion. It is better to be safe and implement stabilization measures than to be sorry and end up with a potential pollution event. For further questions regarding stabilization matters please contact the Lancaster County Conservation District at 717-299-5361 Ext. 5.

—Liz Demming, Resource Conservationist



DID YOU KNOW...

SPECKLED ALDER – Speckled Alder has a slightly bitter taste because of its astringent properties when used for illnesses of the digestive system.

ECHINACEA PURPUREA – Although slightly less commonly used medicinally as its angustifolia cousin, *Echinacea purpurea* has been used traditionally for the onset of common colds and illnesses, sore throats, and even acute arthritic diseases. Not only will Echinacea benefit health and well-being, but you are bound to see pollinators frequenting your beautiful flowers as well.



FRUIT TREE SELECTIONS

R = Rootstock

C = Color

H = Height at Pickup

O = Other

RT = Ripening Time



MONTMORENCY

Montmorency is the most popular sour cherry variety grown in the U.S. and Canada. It originated in France in the 1600's, and was introduced in the U.S. in the 1800's. Sour or tart cherries are great for pies, jams, and preserves. Montmorency is a low maintenance tree, and is able to thrive in poor soils and cold climates. Unlike most sweet cherry varieties, sour cherries are self-pollinating! The showy white flowers in spring are another benefit of planting these cherry trees.

R Mahaleb

H 4-5 ft

RT June

C Bright red

O Mahaleb rootstock is one of the most drought tolerant cherry rootstocks. It provides deep set roots, and good anchorage. However it is very sensitive to water-logged soils. Mahaleb produces a standard sized tree, reaching 12-15 feet tall

DID YOU KNOW...

RED RASPBERRY – Much of the raspberry plant has been utilized for centuries as dyes for fabrics and wool as well as medicinally when used for fevers, sore throats, and pregnancy.

BLACK WILLOW – Black willow is native to New York and Pennsylvania and found often on river banks. Traditionally, Black Willow has been used as a sedative when sleep is troublesome.



KLONDIKE WHITE

This white peach variety has been grown in the Mid-Atlantic region for over 10 years. The tree produces a large, freestone fruit. The taste is a combination of white and yellow peach flavors. Avoid planting where bacterial spot is a problem. *Peaches self-pollinate, and do not generally require staking. Prune trees to have a base, or open center, which allows all work to be done from ground level. Peaches prefer well drained, sandy loam soils, and are intolerant of wet, poorly drained conditions.*

R Lovell

H 4-5 ft

RT August 5-August 15

C Light red blush over white skin

O Lovell rootstocks result in 15-25 ft. trees, if unpruned. This standard rootstock provides good anchorage and high disease resistance to trees. Lovell is more tolerant of wet soils than some other peach rootstocks.



CORAL STAR®

This yellow peach variety produces large, freestone fruits that keep well on trees and storage. The large size of this peach makes it good for canning, and is one of the best variety for freezing. A unique trait of Coral Star® is that the peaches do not brown when cut! This variety is also resistant to bacterial spot. *Peaches self-pollinate, and do not generally require staking. Prune trees to have a base, or open center, which allows all work to be done from ground level. Peaches prefer well drained, sandy loam soils, and are intolerant of wet, poorly drained conditions.*

R Lovell

H 4-5 ft

RT July 27-August 22

C Pinkish red over yellow skin

O Lovell rootstocks result in 15-25 ft. trees, if unpruned. This standard rootstock provides good anchorage and high disease resistance to trees. Lovell is more tolerant of wet soils than some other peach rootstocks.



PRELUDE RED RASPBERRY

Prelude raspberry is identified as the earliest ripening summer red raspberry, ripening in mid-June. Although Prelude is also fall-bearing, it produces the biggest portion of its crop in the spring. Very winter hardy and vigorous, Prelude berries are round-conic, have cohesive drupelets, and very good flavor.



ENCORE RED RASPBERRY

Encore is vigorous, sturdy, upright, nearly spineless and has excellent winter hardiness. Berries are large with very cohesive drupelets and good raspberry flavor. Encore is a good choice for extending the summer raspberry-picking season and offers high yields.

A/S = Age/Size
G = Growing Conditions
C = Characteristics

DESCRIPTION OF



COLORADO BLUE SPRUCE

(*Picea pungens glauca*)

A/S 3-0 yrs., 5-10"

- G** Full sun or partial shade, prefers moist soils but very adaptive to any soil type.
- C** Pyramidal shape. 12'-14' tall & 3'-4' width. Can be used as a screen or windbreak.



CONCOLOR FIR

(*Abies concolor*)

A/S 4-0 yrs., 8-16"

- G** Full sun & easily transplanted. Prefers a deep, well-drained soil with adequate moisture.
- C** Needles silvery blue-green, 2-3 inches long. Pyramidal shape, holding a dense, formal shape with age. 50'-75' tall & 20'-30' wide. Slow to medium growth rate.



DOUGLAS FIR

(*Pseudotsuga menziesii glauca*)

A/S 3-0 yrs., 7-14"

- G** Full sun but will tolerate some shade. Moist, well-drained soil preferred. Dislikes hot, dry sites.
- C** Blue-green 1" needles. 60'-80' tall & 15'-20' spread. A desired Christmas tree.



EASTERN WHITE PINE

(*Pinus strobus*)

A/S 3-0 yrs., 5-10"

- G** Best in full sun although young trees tolerate light shade. Prefers moist, well-drained soils.
- C** Soft needles. 50'-80' tall & 30'-50' wide. Conical form young, losing a defined shape with age (open form). Fast growing.



PIN OAK

(*Quercus palustris*)

A/S 1-0, 2-0 yrs., 12-18"

- G** Full sun. Moist, acidic, well-drained soils. Needs adequate room to develop.
- C** Pyramidal shape young, oval shape when older. 75' tall & 40' spread. Rapid growing tree with dense and twiggy branches.



RED MAPLE

(*Acer rubrum*)

A/S 2-0 yr., 12-18"

- G** Full sun best but can tolerate partial shade. Prefers moist acidic soils. Tolerates occasional flooding & wet soils.
- C** Spread with age to become more oval shape. 40'-70' tall. Brilliant deep scarlet foliage in autumn. Relatively fast growing.



RIVER BIRCH

(*Betula nigra*)

A/S 1-0 yrs., 12-18"

- G** Tolerates heavy, poorly drained areas but widely adapted to varying soils. Full sun
- C** Reddish brown exfoliating bark provides ornamental value. Often grows along streams. 50'-70' tall with medium to fast growth rate.



SWAMP WHITE OAK

(*Quercus bicolor*)

A/S 1-0 yr., 12-18"

- G** Tolerant of poorly drained sites and frequently found in mucky soils. Prefers full to partial sun.
- C** A rapidly growing tree that flowers in spring. Turning golden in the fall. Has a rounded open form. Can grow to 50'-60' tall and spread just as much.



SYCAMORE

(*Platanus occidentalis*)

A/S 1-0 yrs., 12-18"

- G** Full sun preferred. Moist, deep, rich, well-drained soils. Can tolerate moderate salt & drought conditions.
- C** Massive white branches, mosaic of colored bark. 75'-90' tall & 60'-70' wide. Leaves turn yellow-brown in autumn.



TULIP POPLAR

(*Liriodendron tulipifera*)

A/S 1-0, 1-1 yr., 12-18"

- G** Prefers a deep, moist, fertile soil. Full sun and slightly acidic soils are best.
- C** Showy flowers resembling tulips. Wildlife and timber value. Fast growing. 70'-90' tall.

TREE SALE ITEMS

A/S = Age/Size
G = Growing Conditions
C = Characteristics



ARROWWOOD

(*Alnus serrulata*)

A/S 1-0 yr., 12-18"

- G** Full sun or partial shade. Plants thrive in most well-drained soils and will grow in a wide variety of soils.
- C** Grow from six to as much as 10 to 15 feet tall and wide. Large, coarsely toothed leaves are usually glossy with flat-topped, four-inch-wide clusters of tiny white flowers that appear from late spring to early summer. The flowers are followed by blue-black fruit. In fall, the leaves turn yellow, red, or purple-red.



CORALBERRY (Buck Brush)

(*Symphoricarpos orbiculatus*)

A/S 1-0 yr., 12-18"

- G** Grows well in both dry, rocky soil and moist, rich soil. Tolerates both sun and shade.
- C** Mature Height: 2-5 ft Hardy and fast growing. Fruit will hold well into winter. It produces small but pretty flowers. Bloom is mid-summer. Colors are pink, white and near white.



ELDERBERRY (Black)

(*Sambucus canadensis*)

A/S 1-0 yr., 12-18"

- G** Prefers moist soils and full sun.
- C** A fast grower it can reach heights of 12' tall. Produces attractive white flowers and black/purple berries all season long. Berries are great for wildlife, jams and jellies.



PERSIMMON (Common)

(*Diospyros virginiana*)

A/S 1-0 yr., 12-18"

- G** Prefers full sun to partial sun and well drained soils.
- C** Canopy tree 50'-70' tall with 35' -50' spread. Blooms in June and gets a orange/purple berry from September to November. Edible fruit after hard frost.



REDBUD

(*Cercis canadensis*)

A/S 1-0,2-0 yrs., 12-18"

- G** Full sun to light shade. Likes moist, well-drained soils. Avoid permanently wet soils
- C** Shape is rounded to broad & flat-topped. 20'-30' tall & 25'-35' wide. Lavender colored buds in early spring.



SARGENT CRABAPPLE

(*Malus sargentii*)

A/S 2-0 yr., 6-12"

- G** Full sun, prefers an acid soil rich in organic matter but will adapt to most soil types. Although it grows best in a well-drained soil, it tolerates soils that are occasionally wet. Does not tolerate drought.
- C** No more than 8 feet tall with a rounded canopy that spreads 10 feet or more. In spring, the tree features clusters of deep pink buds that open into fragrant, white flowers. The flowers are followed by deep red, shiny fruit. In the fall dark green leaves fade to yellow.



SPECKLED ALDER

(*Alnus serrulata*)

A/S 1-0 yr., 12-18"

- G** Prefers moist, well-drained soils. Does best in full sun but can tolerate partial sun/shade.
- C** Small tree reaching a height of 15'-25' tall and same mature width. Flowers in early spring. Great tree for hedges and screens.



BLACK WILLOW

(*Salix nigra*)

A/S 3"x3"x9" Containerized seedling

- G** Can grow in partial shade if necessary but will flourish in full sun. Soil that stays wet year-round is best for this tree.
- C** Averages about 50 to 65' in height. Lance-shaped leaves grow to 6" long and have a slightly curved look. The thin, gray bark is smooth and the yellow flowers, called catkins, hang down and are 1 1/2" long. They develop into an orange capsule full of seeds by summer.



BUTTONBUSH

(*Cephalanthus occidentalis*)

A/S 3"x3"x9" Containerized seedling

- G** Full sun to light shade. Easily grown as long as the site is not dry.
- C** Shape is rounded & spreading. 3'-6' tall. Flowers globular heads, creamy white, about 1" across. Bloom June-August.



GRAY DOGWOOD

(*Cornus racemosa*)

A/S 3"x3"x9" Containerized seedling

- G** Thrive in full sun or partial shade and almost any soil. They aren't bothered by air pollution. These shrubs tolerate dry soil, so they seldom need watering, and never need fertilizer.
- C** Mature 10-15" height and spread. Low-maintenance shrub offers subtle year-round beauty. White panicles of flowers brighten the landscape in June. White berries attract many birds in the late summer and early fall. And the reddish-pink fruit stems persist into the winter.

A/S = Age/Size

G = Growing Conditions

C = Characteristics

DESCRIPTION OF TREE SALE ITEMS



PAWPAW

(*Asimina triloba*)

A/S 3"x3"x9" Containerized seedling

G Prefers full sun. Likes deep, rich, moist soils associated with valley bottoms

C Grows best in small groves or bunches. Gets a purple flower in April to June. Yellow edible fruit appears after growing for about 8-10 years in August or September.



DIANTHUS

"Star Series"

A/S Quart pot

G Full sun and well-drained soil, preferably with neutral to alkaline soil pH. They will not tolerate wet soils, especially in winter.

C Can grow from 8-24"



DIGITALIS

"Dalmation Purple & Excelsior"

A/S Quart pot

G Full sun or partial shade, sandy or clay soil

C Medium growth rate, 18" to 23" high with spread of 10" to 12".



ECHINACEA

"Pow Wow Wildberry"

A/S Quart pot

G Easily grown in average, dry to medium, well-drained soil in full sun to part shade. Best in full sun. An adaptable plant that is tolerant of drought, heat, humidity and poor soil.

C Height: 2 to 3 feet
Spread: 1 to 1.50 feet
Bloom Time: June to August
Bloom Description: Rose-purple rays with orange-brown center cone



LINUM

"Blue Flax"

A/S Quart pot

G Performs especially well in hot, sunny areas, dry soil

C Height 10-12" with a spread of 18" to 23" This compact selection forms a bushy mound of small, ferny green leaves, bearing loads of small sky-blue flowers for weeks on end.



CREeping PHLOX

"Ronsdorfer Beauty & Pink"

A/S Quart pot

G Full sun and evenly moist but well-drained soils rich in humus or compost. The plants do fairly well in clay soil.

C Creeping phlox plants reach, at most, 6 inches in height and can spread out up to 2 feet to form a mat across the soil surface. Produce small, fragrant flowers in dense clusters.



POPPY ICELAND

"Gnome Mix & Spring Fever"

A/S Quart pot

G Full sun, partial sun, chalky, loamy, sandy soil

C Creeping phlox plants reach, at most, 6 inches in height and can spread out up to 2 feet to form a mat across the soil surface. Produce small, fragrant flowers in dense clusters.



SALVIA

"Maynight"

A/S Quart pot

G Thrive in full sun or bright dappled shade.

C Grow to 18 inches tall without flowers; add another 6 to 8 inches when plants are in bloom.



VERBENA

"Homestead Purple"

A/S Quart pot

G Full sun, sandy soil, well drained, dry to moist soil.

C Fast growing, 8" to 12" high, 12" to 18" spread, large rich velvety purple flowers.



MYRTLE

A/S 50 Plants/ flat

G Partial sun to full shade. Performs best in well drained soils.

C Short evergreen perennial ground cover. Grows to 6" tall and 3' diameter. Small blue-purple flowers.



LITIOPE VARIGATED

A/S 18 Plants/flat

G Tolerates shade to full sun. Well drained to moderately drained soils are preferred.

C A tufted, tuberous-rooted, grass-like perennial growing 12"-18" tall. Showy flowers spikes with purple flowers in late summer and blackish berries.



CAREX PENNSYLVANICA

A/S 18 Plants/flat

G Shade tolerant perennial ground-cover for well drained soils.

C Sedges have edges. Grows in small clumps up to about 8". Late spring flowers bloom followed by very small fruits in bracts.



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IN THIS ISSUE: 2019 TREE SEEDLING ORDER FORM

Certification Recognized

This past year Kent Bitting, Maddie Klein, and Eric Knoll completed the Act 38 Nutrient Management Certification Program to become certified for Nutrient Management Public Review. This program gives technicians the skills needed to review Act 38 Nutrient Management Plans that come into the office. The Act 38 Nutrient Management Program deals with regulated concentrated animal operations and focuses on the management of nutrients on the farm.



Kent Bitting



Maddie Klein



Eric Knoll



Conservation Districts

Following the Dust Bowl of the 1930's the nation's perspective of soil as a natural resource began to change. Conservation Districts were created and established by communities and later individual counties to assist residents in the management of this vital natural resource and prevent it from mixing with water resources. Today the United States has more than 3,000 local Conservation Districts.

The Lancaster County Conservation District celebrates 69 years of technical assistance, education, and resource management to all citizens in the county. Learn more about current programs and departments at the District by visiting www.lancasterconservation.org. If you have additional questions please contact the District at 717-299-5361 x.5.



LANCASTER COUNTY
CONSERVATION DISTRICT