

CONSERVATION NOTES

LickingSWCD.com

CELEBRATING SOIL & WATER'S 75TH ANNIVERSARY

Since 1944, Licking County Soil & Water Conservation District exists to promote wise use of our land and water. During those 75 years, Licking Soil & Water has worked with countless landowners to manage and protect natural resources on public and private lands. This year, for our 75th birthday, Licking Soil & Water is reflecting on our history in and impact on Licking County. Below is Part One of a four-part series celebrating our legacy.

Do you remember reading John Steinbeck's *The Grapes of Wrath*? Those "Okies" were leaving Oklahoma after drought, the Great Depression of the 1930s, and collapse of the tenant farmers' agriculture system. The soil was destroyed to the point of blowing away; this phenomenon was called the Dust Bowl. On May 12, 1934, the worst dust storm in the nation's history swept eastward from the Great Plains to the Atlantic Ocean, obscuring the sun and depositing obvious films of dust as it moved. This catastrophic storm served as the catalyst for public outcry and congressional action for soil and water conservation throughout the nation.

A Voice for Soil

Why did the Dust Bowl happen? Could it be prevented? What can we learn from these mistakes? The federal government tried to answer these questions through the creation of the Soil Conservation Service (SCS) within the US Department of Agriculture (USDA) in 1935. A man named



Hugh Hammond Bennett (pictured above) led the fledgling SCS but was not new to soil science. Bennett was convinced that soil was not an exhaustible resource and had been working feverishly to share his opinions with colleagues and land managers since the early 1900s. He co-wrote *Soil Erosion: A National Menace in 1928*. Over the course of his 16 years with the SCS, Bennett changed the mindset of farmers and politicians toward soil and its conservation practices.

Unfortunately and not surprisingly, the farmers that SCS wanted to work with in 1935 were skeptical of federal involvement. Not much progress was made until the federal government enacted a law establishing a state soil conservation agency and most-importantly, procedures to organize local soil and water conservation districts. In 1941, Ohio created the Ohio Soil Conservation District Enabling Act so local conservation districts could begin to rebuild soil in partnership with the agriculture community.

Local Leadership

In 1943, a group of 75 Licking County landowners requested a hearing and petitioned the state for the formation of a local conservation district. Five Supervisors were elected and the Licking County Soil & Water Conservation District officially became a political subdivision of the State of Ohio. E. T. Denman, J. F. Morrison, Clayton Oyler, George Smith, and H. Lee Williams served as the first Board of Supervisors.

Ohio did not suffer from wind erosion like the American Great Plains did during the Dust Bowl, but we did suffer soil damage via water erosion. Licking Soil & Water employees and elected Supervisors, as well as farmers served as local conservation professionals who understood local resource issues. The locally-led component of the soil and water conservation district model literally transformed agricultural practices in Licking County.

The Second Frontier

Our big day came when The Second Frontier demonstration took place near Brownsville on October 2, 1947. Licking County Soil & Water Conservation District Chairman J. F. Morrison hatched the idea with Farm Planner Morton Hamilton, Bill Diehl of the Newark Advocate, and USDA District Conservationist Pearl Fogle. Their idea was to convert an entire farm to conservation methods in one day. John Rodman's farm and George Latham's farm outside of Brownsville had a natural amphitheater and was particularly accessible right on Route 40. The location

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- Camp Canopy
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- Callout for Tree Sale Volunteers
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- Urban Forest Success
- Important Dates

Check out the 2019 Seedling Tree Sale on page 4



Promoting conservation of natural resources through local leadership, education, and technical assistance.

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LickingSWCD.com
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USDA NRCS STAFF

Joe Koehler
Danielle Meggyesy
Emily Price

Office Hours: 8:00 AM – 4:30 PM
Monday–Friday
Closed Federal Holidays

The Soil & Water Board meets on the second Wednesday of the month at 4:30 pm at the Soil & Water office. The public is welcome to attend.

USDA is an equal opportunity provider, employer, and lender.

ADVENTURE-THEMED CONSERVATION CAMP

Registration is now open for the popular Camp Canopy, which runs from June 9-14, according to the Ohio Department of Natural Resources (ODNR). Students who have completed the eighth grade through high school seniors graduating the year of camp are invited to attend Camp Canopy, which was previously known as the Ohio Forestry and Wildlife Conservation Camp.

Coordinators for Camp Canopy are developing brand-new classes and new adventure-themed recreational activities, in addition to the traditional learning topics and fun activities from previous years, according to Jeremy Scherf, camp co-director and service forester with the ODNR Division of Forestry. Topics for Camp Canopy this year include tree identification, wildlife management, silviculture and invasive species.



“This year’s camp is going to be better than ever,” said Scherf. “We are excited to share new knowledge and outdoor skills with the students, focusing on the wonders of forests and wildlife in Ohio.”

The camp will be held at FFA Camp Muskingum on Leesville Lake in Carroll County. For more information about Camp Canopy, visit campcanopy.com.

PLANTING THE FUTURE FREE TREES FOR STUDENTS

Thanks to our generous sponsors, Licking Soil & Water offers free seedling trees to elementary and middle schools that serve Licking County students. The free seedling trees program is an opportunity to show students how important trees are to their health, their community, and their environment.

Contact Soil & Water at Information@LickingSWCD.com or call 740-670-5330

DONATE TO THE CAUSE

Let’s give kids the opportunity to fall in love with nature, because you protect what you love. Your contribution enables Licking Soil & Water to provide youth with seedling trees and many other important services for cultivating a natural resource conservation-based citizenry in our county.

No matter how large or small, your donation to Soil & Water can have an impact that extends beyond your lifetime. Licking Soil & Water continues to maintain its long standing commitment to promote conservation of natural resources through local leadership, education, and technical assistance.

Visit www.LickingSWCD.com to donate online

CALL OUT FOR TREE SALE VOLUNTEERS

Annually, Soil & Water distributes tens of thousands of trees. Consider helping inventory and package the delicate seedling trees, put together wildflower seed packets and assist community members when they pick up their trees. Opportunities are inside and outside, sitting and standing, and for a couple hours or for a whole day. Any time you can give is much appreciated. 🌍

For more information or to sign up to volunteer, please contact Kristy, 740-670-5330, Information@LickingSWCD.com.



RENT OUR NO-TILL DRILL



Have a pasture or hay field to replant? Small soybean field? Other planting needs? Our no-till drills rent for only \$12 per acre.

Click or Call to schedule: 740-670-5330

Great Plains 706NT Drill

Tractor Requirements - 85 hp
Planting Width - 7 feet
Total Width - 9 feet 10 inches

John Deere 1590 Grain Drill

Tractor Requirements - 55 hp
Planting Width - 10 feet
Total Width - 10 feet 6 inches

CELEBRATING 75TH ANNIVERSARY (continued from page 1)

could easily host a demonstration by farmers *for* farmers and the land was ripe for conservation improvements. Donations for equipment and of volunteer time from community members to coordinate the massive field day were overwhelming.

In advance of Second Frontier Day, SCS created a whole-farm conservation plan that classified what land uses were suitable for various soil types on the property. On October 2nd, land was tilled to improve drainage, terraced to slow down water runoff, and strip-cropped along the contours of the land and alternating between wheat and grass to slow and filter runoff. Land was plowed, disked and fertilized. A water storage reservoir was built and twelve acres of trees were planted. Some fences were taken out and more fencing was installed to follow the land's natural contours. (Map on right.)

Over 100,000 spectators were expected and the program of events was impressive. Louis Bromfield, Ohio Governor Thomas J. Herbert, SCS State Conservationist T. C. Kennard, U. S. Senator John W. Bricker, Ohio Federation of Soil and Water Conservation Districts President Clay Stackhouse, and the legendary SCS Chief Dr. Hugh Hammond Bennett were present to offer their messages of support and expertise.

According to Robert Waldrop, a radio personality from WTAM out of Cleveland, "There is only one word that can describe the Second Frontier demonstration... American. It's the American way of calling attention to an American need. It can all be

summed up in a few words...poor land – poor people – good land – strong people”.

Although over seventy years have passed since Second Frontier Day, you can still see the conservation practices from US 40. The Second Frontier Memorial Plaque in Honor of Hugh Hammond Bennett is on display at the Licking Soil & Water office in Newark.

Visit www.LickingSWCD.com/who-we-are/ for additional photos, documents and videos about our history. 🌍

Sources include:

Ohio Department of Agriculture, The Times-Gazette, Licking County Records, and Archives Ohio Genealogical Society



2019 SEEDLING TREE SALE

NATIVE EVERGREEN SPECIES



Eastern White Cedar

Mature Height: 20-60'
Mature Width: 10-15'
Growth Rate: S-M
Light Required: S
Soil Moisture: M-W
Soil pH: A

Comments/Uses:
aka American Arborvitae, well adapted



White Pine

Mature Height: 60-80'
Mature Width: 20-40'
Growth Rate: F
Light Required: S
Soil Moisture: M
Soil pH: A, N

Comments/Uses:
timber, windbreak, wildlife

Visit the online catalog at
www.LickingSWCD.com

NATIVE DECIDUOUS SPECIES



American Hazelnut

Mature Height: 10-16'
Mature Width: 8-15'
Growth Rate: F-M
Light Required: S, P
Soil Moisture: M
Soil pH: A, N, B

Comments/Uses:
edible nut, wildlife, tolerant of clay soil



Black Chokeberry

Mature Height: 3-8'
Mature Width: 3-8'
Growth Rate: S
Light Required: S, P
Soil Moisture: M
Soil pH: A

Comments/Uses:
landscaping, flood tolerant, wildlife, autumn color



Black Walnut

Mature Height: 50-70'
Mature Width: 50-70'
Growth Rate: F
Light Required: S, P
Soil Moisture: D, M, W
Soil pH: A, N

Comments/Uses:
nuts, timber, wildlife



Bottlebrush Buckeye

Mature Height: 6-12'
Mature Width: 8-15'
Growth Rate: F-M
Light Required: P, SH
Soil Moisture: M, W
Soil pH: N, B

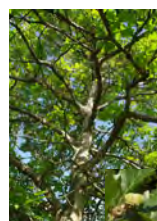
Comments/Uses:
spring flowers, butterflies, autumn color



Buttonbush

Mature Height: 5-12'
Mature Width: 4-15'
Growth Rate: M
Light Required: S
Soil Moisture: W
Soil pH: N

Comments/Uses:
pollinator, wildlife, spherical white flowers, ornamental, wetland



Chinquapin Oak

Mature Height: 40-70'
Mature Width: 50-80'
Growth Rate: M-S
Light Required: S, P
Soil Moisture: M
Soil pH: B, N

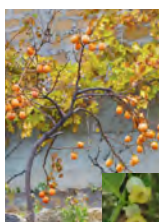
Comments/Uses:
great for bottom lands with rich soil, fuelwood, wildlife



Pawpaw

Mature Height: 15-30'
Mature Width: 15-30'
Growth Rate: F-M
Light Required: S, P
Soil Moisture: M, W
Soil pH: A, N

Comments/Uses:
edible fruit, wildlife



Persimmon

Mature Height: 40-50'
Mature Width: 25-30'
Growth Rate: M-S
Light Required: S, P
Soil Moisture: M, W
Soil pH: N

Comments/Uses:
edible fruits, wildlife, fall color, specialty lumber



Pin Oak

Mature Height: 50-70'
Mature Width: 40-60'
Growth Rate: F-M
Light Required: S, P
Soil Moisture: M, W
Soil pH: A

Comments/Uses:
russet fall color, great shade tree with dense branches and leaves



Red Buckeye

Mature Height: 10-30'
Mature Width: 10-20'
Growth Rate: M
Light Required: P
Soil Moisture: M
Soil pH: B, N

Comments/Uses:
big red flower clusters, attracts hummingbirds



Red Oak

Mature Height: 50-60'
Mature Width: 50-60'
Growth Rate: F
Light Required: S
Soil Moisture: D, M
Soil pH: N

Comments/Uses:
tolerates dry conditions, timber, landscaping



Red Osier Dogwood

Mature Height: 4-12'
Mature Width: 7-10'
Growth Rate: F
Light Required: S, P
Soil Moisture: M, W
Soil pH: N

Comments/Uses:
wildlife, landscaping, red twigs in winter, wetland edge

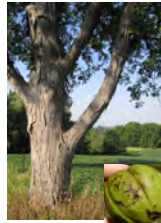
NATIVE DECIDUOUS SPECIES (CONT.)



Redbud

Mature Height: 25–30'
Mature Width: 26–33'
Growth Rate: M
Light Required: S, P
Soil Moisture: M, W
Soil pH: B

Comments/Uses: adaptable, edible pink-magenta flowers



Shagbark Hickory

Mature Height: 75–100'
Mature Width: 40–70'
Growth Rate: M–S
Light Required: S, P
Soil Moisture: M
Soil pH: A, N

Comments/Uses: timber, wildlife, shaggy bark is bat habitat, drought tolerant



Spicebush

Mature Height: 6–12'
Mature Width: 6–15'
Growth Rate: M–S
Light Required: P, SH
Soil Moisture: M, W
Soil pH: A, N, B

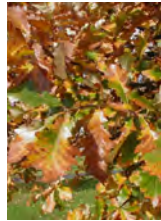
Comments/Uses: understory shrub, wildlife, spicy fragrance



Sugar Maple

Mature Height: 60–80'
Mature Width: 20–40'
Growth Rate: M–S
Light Required: S
Soil Moisture: M
Soil pH: N

Comments/Uses: maple syrup, landscaping, timber, autumn color



Swamp White Oak

Mature Height: 50–70'
Mature Width: 50–70'
Growth Rate: M–S
Light Required: S, P
Soil Moisture: M
Soil pH: A

Comments/Uses: adaptable, bottomlands, timber, wildlife



White Flowering Dogwood

Mature Height: 20–30'
Mature Width: 20–25'
Growth Rate: M–S
Light Required: S, P
Soil Moisture: M
Soil pH: A

Comments/Uses: spring flowers, red/burgundy autumn color



White Oak

Mature Height: 50–70'
Mature Width: 50–70'
Growth Rate: M–S
Light Required: S, P
Soil Moisture: D, M, W
Soil pH: N

Comments/Uses: timber, wildlife, long-lived, ornamental

Additional Items

Boundary Marking Paint

8" wide yellow aerosol spray, long-lasting and fast drying

Tree Tube w/ Woodstake

4' height, improves seedling survival and reduces wildlife damage

Marking Flags

21" metal shaft with 4x5" white flag

Dibble Bar

tapered thin wedge cast blade to quickly plant seedling trees



Wildflower Seeds

plant up to 200' sq. with perennials, grasses and showy annuals



Rain Barrel

stores up to 55 gallons of rain water, use to water plants and/or animals, ready to connect to your downspout



Order Deadline: Monday, March 25th

Pick up: Friday, April 12th

Growth Rate: F = fast 12" + /year, M = medium 6–12" /year, S = slow 2–6" /year
Light Required: S = sun, P = part sun/ part shade, SH = shade
Soil Moisture: D = dry, M = medium, W = wet
Soil pH: A = acidic (6.5 or less), N = normal range (6.5–7.5), B = basic/alkaline (7.5+)

Seedlings are 6–18" tall, see order form on page 6 for more details.

Questions or special orders call: 740-670-5330

2019 SEEDLING TREE SALE ORDER FORM

PLEASE INDICATE QUANTITY NEXT TO ITEM & CIRCLE PACK OF 5, 25 or 100						
Native Evergreens	Qty.	Sapling 3'-4'	Pack of 5 12"-18"	Pack of 25 6"-9"	Pack of 100 6"-9"	Total
E. White Cedar/Amer. Arborvitae	Sold Out	n/a	\$10.00	\$20.00	\$60.00	
White Pine (*9-12")		n/a	\$10.00*	\$20.00	\$60.00	
PLEASE INDICATE QUANTITY NEXT TO ITEM & CIRCLE PACK OF 5, 25 or 100						
Native Deciduous Shrubs (<15')	Qty.	Sapling 3'-4'	Pack of 5 12"-18"	Pack of 25 6"-12"	Pack of 100 6"-12"	Total
American Hazelnut		\$10.00	n/a	n/a	n/a	
Black Chokeberry		n/a	\$10.00	\$30.00	\$90.00	
Bottlebrush Buckeye (*6-12")	Sold Out	n/a	\$10.00*	n/a	n/a	
Buttonbush		n/a	\$10.00	\$30.00	\$90.00	
Red Osier Dogwood	Sold Out	n/a	\$10.00	\$30.00	\$90.00	
Spicebush		n/a	\$10.00	\$30.00	\$90.00	
Native Deciduous Small Trees (15-25 ft.)	Qty.	Sapling 3'-4'	Pack of 5 12"-18"	Pack of 25 6"-12"	Pack of 100 6"-12"	Total
Pawpaw	Sold Out	n/a	\$10.00	\$30.00	\$90.00	
Redbud		\$10.00	\$10.00	\$30.00	\$90.00	
Red Buckeye (*6-12")		n/a	\$10.00*	n/a	n/a	
White Flowering Dogwood		Sold Out	\$10.00	\$30.00	\$90.00	
Native Deciduous Large Trees	Qty.	Sapling 3'-4'	Pack of 5 12"-18"	Pack of 25 6"-12"	Pack of 100 6"-12"	Total
Black Walnut		n/a	\$10.00	\$30.00	\$90.00	
Chinquapin Oak		n/a	\$10.00	\$30.00	\$90.00	
Persimmon		n/a	\$10.00	\$30.00	\$90.00	
Pin Oak		n/a	\$10.00	\$30.00	\$90.00	
Red Oak		n/a	\$10.00	\$30.00	\$90.00	
Shagbark Hickory		n/a	\$10.00	\$30.00	\$90.00	
Sugar Maple		n/a	\$10.00	\$30.00	\$90.00	
Swamp White Oak		n/a	\$10.00	\$30.00	\$90.00	
White Oak		n/a	\$10.00	\$30.00	\$90.00	
Additional Items						
Item	Qty.		Cost			Total
Wildflower Seeds			\$4.50			
Boundary marking paint (yellow)			\$7.00			
Tree tube and Woodstake			\$5.00			
Marking Flags (white)			\$0.10			
Dibble Bar			\$55.00			
Rain Barrel			\$65.00			
Order Deadline: March 25th ~ Pick Up: Friday, April 12th						Grand Total

(Please Print)

Name: _____ Phone: _____

Address: _____ City: _____ State: _____ Zip: _____

Email: _____ County: _____

Please make checks payable to: LCSWCD • 771 East Main St., Suite 100, Newark, OH 43055

BMPs PAVE THE WAY FOR URBAN FOREST SUCCESS

Natural forests are incredibly efficient stormwater management systems. Trees have an innate ability to intercept, infiltrate, and store rainwater with their broad canopies, extensive roots, and complex vascular systems. Additionally, forest floors literally soak up stormwater like a giant sponge. These qualities should not be underestimated. Stormwater managers often look for ways to utilize these services in the urban environment.

Urban areas, as one might expect, behave quite differently compared to natural forests. Unfortunately, challenges abound when it comes to realizing the full suite of stormwater services trees can offer most cityscapes. Cityscapes are locations often in most desperate need of these services. Buildings, roads, and other infrastructure can lead to widespread soil compaction, space limitations, and other stressors like pollution. These stressors can negatively impact the overall health of urban trees. Fortunately, landscape architects and city planners have a few tools available to them that not only allow trees to survive urban landscapes, they allow them to thrive.

Urban areas are highly altered landscapes often resulting in less than ideal growing conditions. The biggest limiting factor for tree success in the urban environment is poor soil conditions. With the help of best management practices (BMPs) like structural cells and rock-based structural

soil, however, urban areas can support trees that reach their full stormwater management potential.

Structural Cells (a.k.a. Suspended Pavement)

Structural cells are constructed using a latticework of modular (often rigid plastic) support structures buried underground upon which sidewalks and bioretention facilities are built. These support structures bear the weight of overlying pavement, effectively suspending it above the soil beneath. Structural cells can be backfilled with fluffy, uncompacted planting medium which allows tree roots and stormwater to penetrate otherwise impervious areas.

Rock-based Structural Soil

In a similar method, rock-based structural soil can be installed in bioretention structures between city streets and sidewalks. Structural soil is an engineered medium comprised of angular gravel with consistent particle sizes in the 1 ½ – 2 inch range mixed with about 20% loam soil. The size and shape of gravel used in a structural soil provides plenty of voids in which tree roots can expand even when compacted. The extensive pore space in a structural soil also allows for stormwater infiltration and storage, while at the same time, meeting load capacity standards required by most engineering designs.

The next time you take a stroll around the town, take a moment to observe not only the aesthetic beauty of your urban forest, but also appreciate the many services healthy trees can provide to our communities. 🌳



Interested in learning more about the Infrastructure in Downtown Newark?

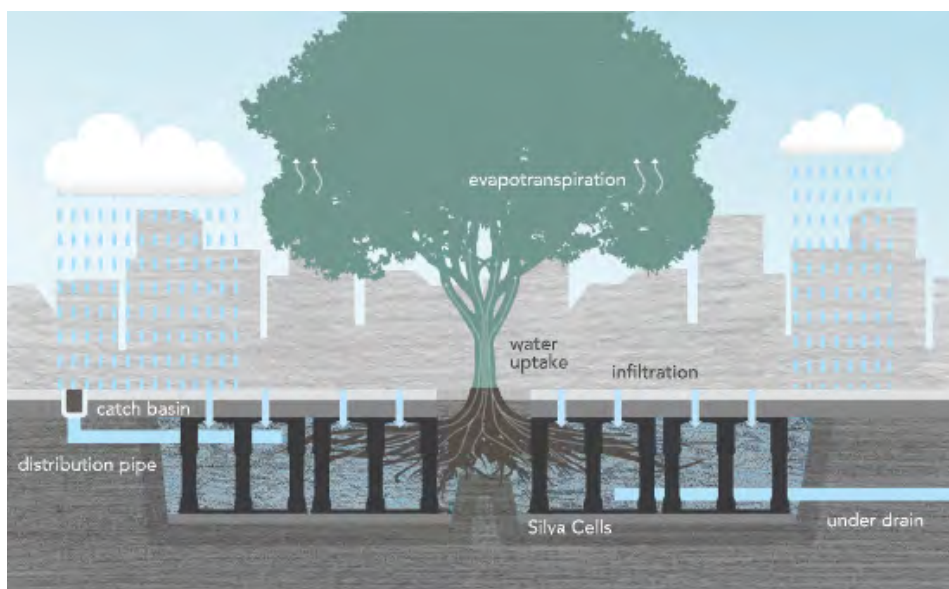
Newark Water Infrastructure Tour is scheduled as part of the 2019 Educator Workshop Series.

ADDITIONAL CLASSES INCLUDE

- Project WET & Healthy Water, Healthy People
- Citizen Science/Project-Learning Based
- Project Learning Tree
- Project WILD & Aquatic Project WILD
- Environmental Education for Early Childhood

Facilitated by Soil & Water, Licking Park District and The Dawes Arboretum. All activities are correlated to state and national education standards.

Contact Soil & Water at Information@LickingSWCD.com or call 740-670-5330



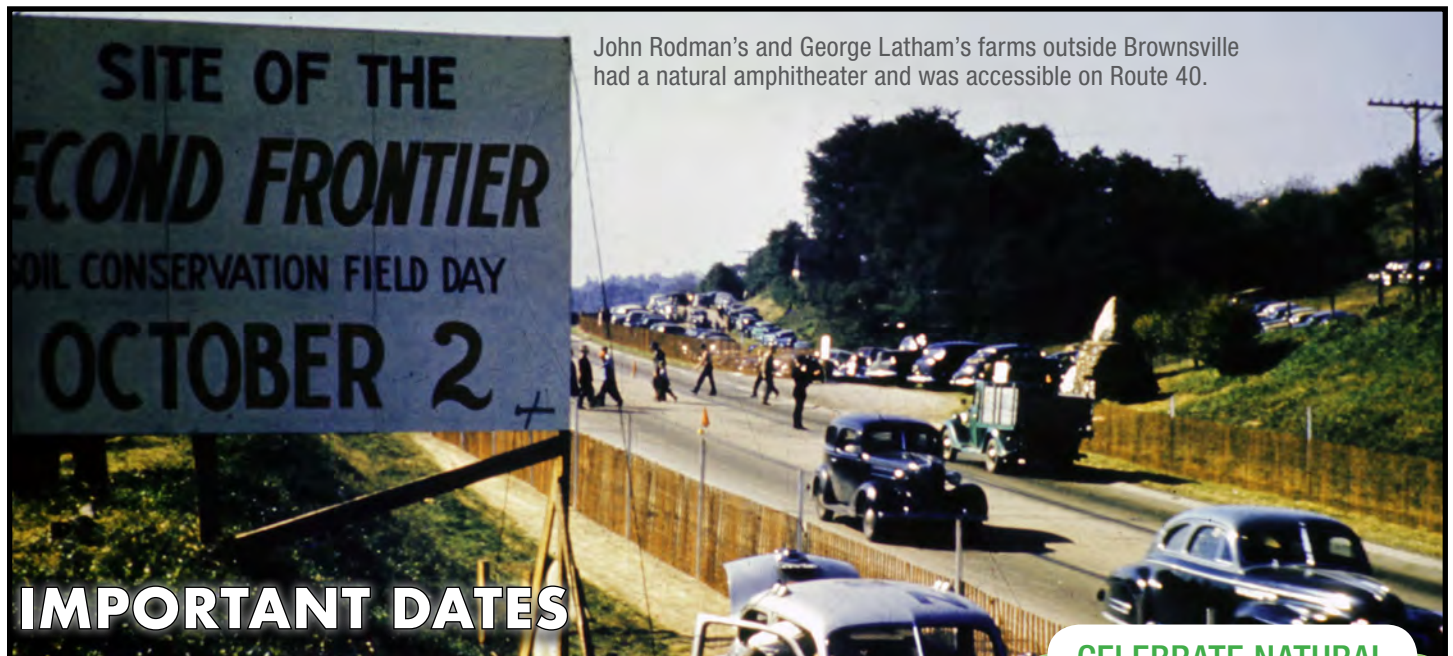
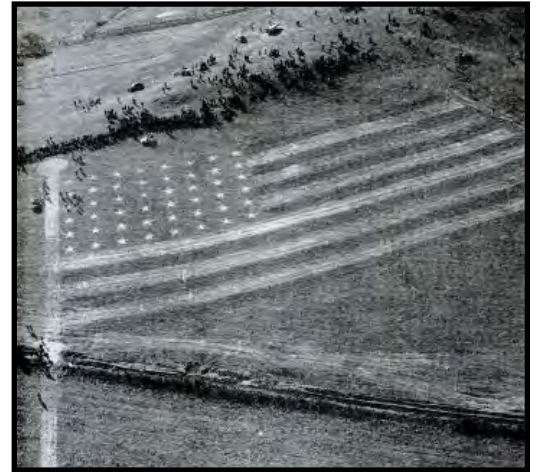
Courtesy of DeepRoot Green Infrastructure, LLC (www.deeroot.com), used with permission.

CELEBRATING 75TH ANNIVERSARY (continued from page 1)

SCS created a whole-farm conservation plan for the property. A water storage reservoir was built and the pond is still visible from old US 40 just west of Brownsville.



Design for Conservation The huge design below is the climax of a one-day demonstration of soil-conservation methods in Licking County Ohio. The stripes and stars were carefully laid down with lime. The exhibition called the Opening of the Second Frontier, cover 208 acres, did four years' work in less than 24 hours.



John Rodman's and George Latham's farms outside Brownsville had a natural amphitheater and was accessible on Route 40.

IMPORTANT DATES

Mar 8	*Local Work Group & Policy Development	The Grove by the River
Mar 13	Soil & Water Board Meeting	Ag Service Center
Mar 16	*Soil Health 101	Wilson's Garden Center
Mar 23	*Rain Barrel and Rain Garden Demo	Wilson's Garden Center
Mar 25	Tree sale ordering deadline	SWCD Office
Mar 29-30	*Coalition of Land Trusts Conference	Doubletree Newark
Mar 29	*Ag Hall of Fame Induction Breakfast	Reese Center, Newark
Apr 12	Tree sale pick up	Soil & Water barn
Apr 16	Tri-County Envirothon	Riverview Preserve
Apr 17	Soil & Water Board Meeting	Ag Service Center
Apr 24	Area 3 Envirothon	Washington County

*RSVP Required. Visit www.LickingSWCD.com for details

CELEBRATE NATURAL RESOURCES THIS SPRING

Agriculture Week

March 19-23

Earth Day

April 22

Arbor Day

April 26

Stewardship Week

April 28-May 5