



DELAWARE *Forest Service* 2013 ANNUAL REPORT



STATE OF DELAWARE
DEPARTMENT OF AGRICULTURE
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SECRETARY
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DEPUTY SECRETARY

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August 8, 2013

W. Edwin Kee, Jr., Secretary
Delaware Department of Agriculture
2320 South DuPont Highway
Dover, DE 19901

Dear Secretary Kee:

I greatly appreciate your continued support for the valuable public services offered by the Delaware Forest Service. Urban and rural forests in Delaware provide so many vital natural benefits it is in our collective interest to protect them the best we can and help ensure their health and longevity for the enjoyment of future generations.

The attached Annual Report for FY13 summarizes the many forestry-related activities we successfully completed within our core programs: forest health, forest stewardship, urban and community forestry, and wildland fire. The details and highlights contained herein should give you a clear picture of the dedication and enthusiasm of the Delaware Forest Service staff. Our goals revolve around protecting trees and forests and educating the general public on the importance of this widespread natural resource.

The ongoing support that we receive from the Markell Administration, Delaware General Assembly, and the U.S. Forest Service helps us perform those tasks that ensure success in achieving our mission *to conserve, protect, and enhance Delaware's forests through education, management, and professional assistance.*

Sincerely,

A handwritten signature in cursive script that reads "Michael A. Valenti".

Michael A. Valenti
Forestry Administrator

ADVISORY COUNCILS

Governor's Council on Forestry

Peter Martin
Chair
Georgetown

Dot Abbott
Wyoming

Steve Ditmer
Delmar

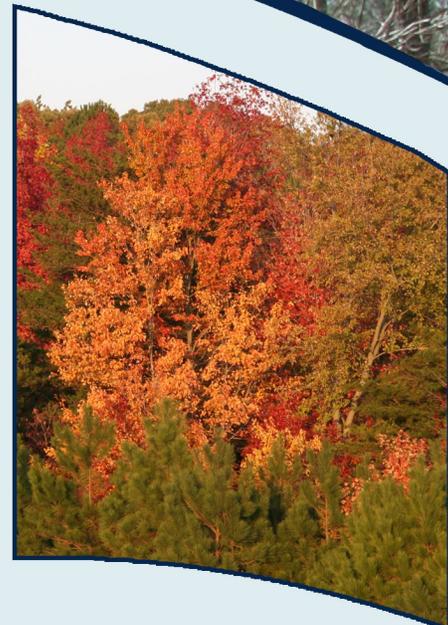
W. Allen Jones
Georgetown

Grace Lowe
Lewes

Richard Pratt
Clayton

George Torbert, III
Greenwood

Michael A. Valenti
State Forester



Delaware Urban and Community Forestry Council

Chip Rosan
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Jay Ashby
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Urban Forester

Valann Budischak
Delaware Nursery and
Landscape Association

Marcia Fox
DNREC

Kyle Hoyd
Urban and Community
Forestry Program Director

Carol Larson
Village of Arden

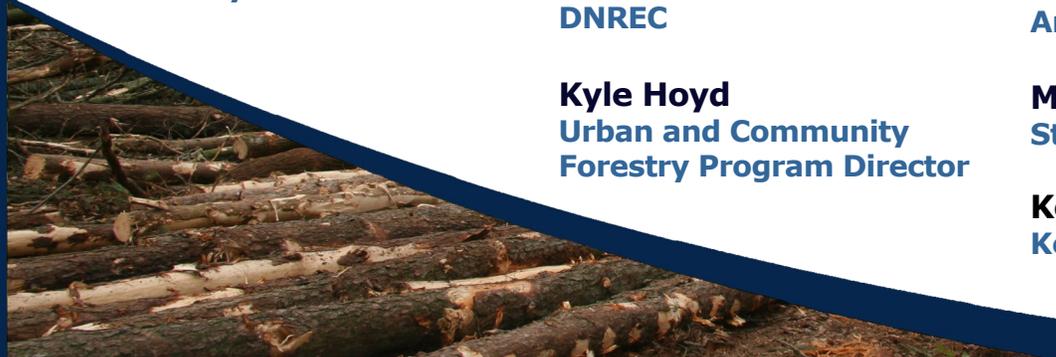
Jeff Middleton
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Governor's Council
on Forestry

Elaine Schmerling
Ardentown

Michael A. Valenti
State Forester

Kerin Walsh
Kent Conservation District



Delaware State Forests

The Delaware Forest Service manages three state forests totaling over 19,000 acres: Blackbird State Forest near Smyrna, Taber State Forest near Harrington, and Redden State Forest near Georgetown. These forests are managed for multiple objectives including: timber, wildlife habitat, water quality, and recreation.

Blackbird and Redden contain the northern and southern field offices, forest education centers that are available year-round for school visits, meetings and group events, outdoor educational trails, and wildland fire suppression equipment.

Blackbird State Forest, on the border of New Castle and Kent Counties, is the northernmost state forest and only a 30-minute commute from Wilmington and Newark. A popular site for outdoor recreation, Blackbird features over 40 miles of trails for hiking, running, bicycling, horseback riding, and cross-country skiing, including a 2,200-foot paved nature trail that is wheelchair-accessible. The trail system connects five campsites and four picnic sites, available on a first-come, first-served basis. Blackbird is also open to hunting and catch-and-release fishing.

Taber State Forest lies in southwestern Kent County and is the smallest of Delaware's state forests at 1,273 acres. It is managed primarily for timber production and wildlife habitat. Due to its secluded, rural setting, Taber has become a very popular hunting site.

Redden State Forest is Delaware's largest state forest, totaling over 12,400 acres in central Sussex County just north of Georgetown. With over 44 miles of trails, Redden State Forest is popular for hiking, horseback riding, bicycling, and bird watching. Redden has large timbered tracts that are ideal for deer hunting and a limited number of primitive camping sites with a small catch-and-release fishing pond. Its education center, formerly a historic carriage house, opened in 2000. The historic Redden Lodge, renovated in 1996, is open to the public at a nominal cost. Weekend, daily, and evening reservations are available. The Lodge has a complete kitchen and is handicapped-accessible.

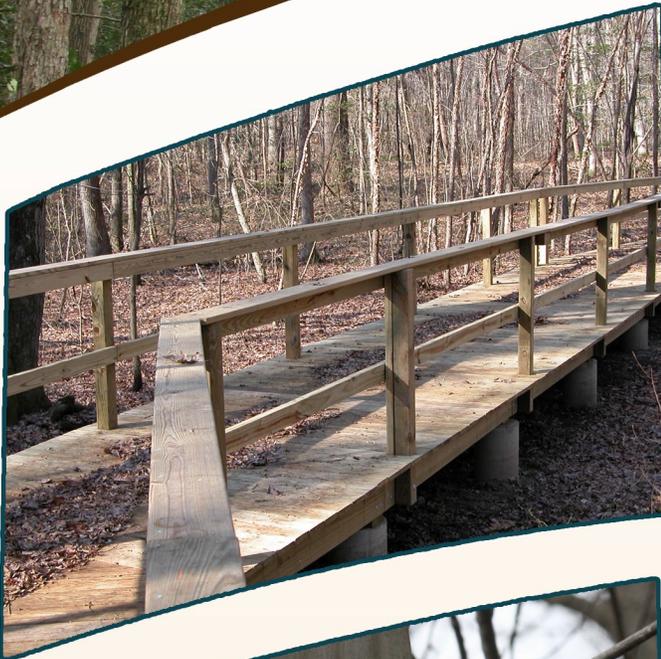
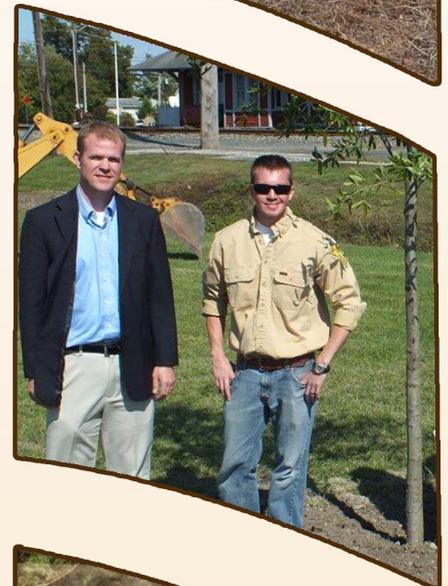
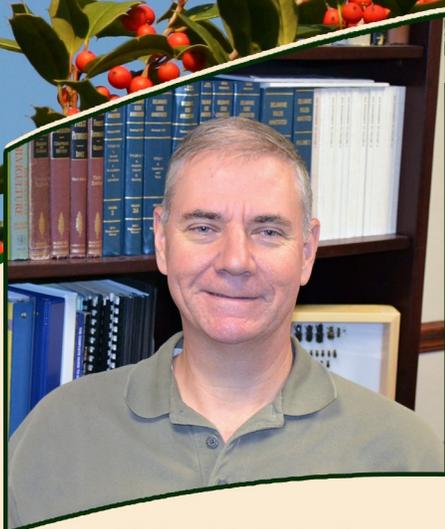


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Michael A. Valenti
State Forester

Conservation of our rural and urban forests should be of utmost concern to all Delawareans because of the numerous natural benefits trees provide. As part of its ongoing efforts to protect these valuable resources, the Delaware Forest Service faces many challenges, which fall into three broad categories: (1) poor management of our forest resources, (2) threats to the long-term health of our forests, and (3) a lack of public awareness of the importance of Delaware's forests and the services offered by the Delaware Forest Service.

To meet these diverse challenges, we offer programs in three main areas: conservation, protection, and education.

EXECUTIVE SUMMARY

Forest Conservation Program

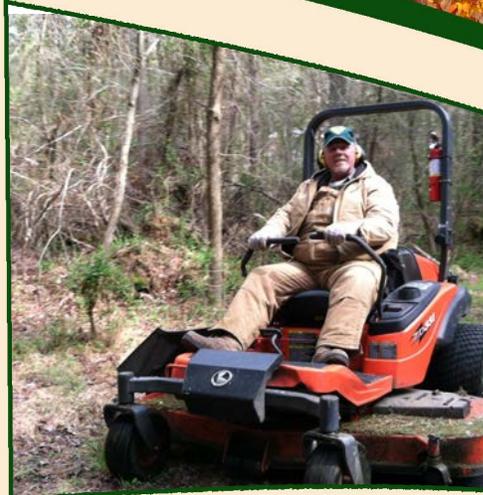
Urban and Community Forestry. Delaware Forest Service staff, through the Urban and Community Forestry Program, provide technical assistance to cities, towns, communities, developers, and local governments to help develop community forest management plans and street tree inventories. Foresters also review proposed developments to conserve and protect urban forest resources. Additionally, annual community-based forestry grants are offered to various organizations for tree planting and tree management projects on publicly owned lands. In FY13, the Delaware Forest Service awarded 27 community forestry grants totaling \$108,342 for various urban and community forestry projects throughout Delaware.

Landowner Assistance. Our professional foresters help landowners improve the quality of their forested lands through a variety of services. This technical assistance encompasses a wide range of forest management activities including reforestation, timber harvesting, timber stand improvement, and forest management plan development. In FY13, the Delaware Forest Service assisted private landowners reforest 346 acres, developed 37 forest stewardship plans on over 2,118 acres, and assisted 12 landowners with silvicultural practices on 427 acres.

Forest Protection Program

Forest Health. The Delaware Forest Service strives to maintain and improve the health of Delaware's forests through forest pest surveys, annual inventories of permanent forest health monitoring plots, diagnosis of forest health problems for landowners, and educational programs. During the past year, staff members provided 144 forest insect and disease diagnoses for landowners and homeowners and four forest health education programs to 208 students. Additionally, our forest health specialist continued to monitor permanent plots in the state to track long-term forest health and for invasive pests such as emerald ash borer, Sirex wood wasp, and the Asian longhorned beetle.

Wildland Fire. Forest Service personnel help protect Delaware's natural resources through our wildland fire program. Staff members assist volunteer fire companies by aiding them in wildland fire suppression and providing wildland fire training courses. During FY13, in cooperation with the Delaware State Fire School, the Delaware Forest Service provided wildland fire training to 56 individuals; helped volunteer firefighters suppress 13 wildfires that burned over 35 acres; and dispatched personnel and resources (20-person crews, equipment manager, and dispatchers) at the national level to fight wildland fires. In total, Delaware wildland fire personnel contributed 807 person-days to



the national effort. Through a prescribed fire program designed to help landowners manage their lands, staff completed 19 controlled burns on a total of 200 acres. Staff members also provided 105 fire education programs to 7,369 Delaware first-grade students.

Watershed Protection. The Delaware Forest Service reviews all forest management operations and activities to ensure compliance with the Forestry Practices Erosion and Sedimentation (E&S) law. In FY13, foresters issued 116 permits on a total of 4,887 acres and conducted 247 site inspections of forest management operations while also providing technical assistance to forestry operators to help safeguard water quality.

Forestry Education Program

State Forest Management. The Delaware Forest Service manages over 19,000 acres at Blackbird, Redden, and Taber State Forests for wildlife habitat, recreation, timber production, natural resource education, and water quality. In FY13, an estimated 26,811 visitors logged 29,710 user-days with activities such as hunting, wildlife observation, hiking, and horseback riding. One partially forested parcel, the Wilson Farm, totaling 85 acres was added to Redden State Forest and three parcels totaling 48 forested acres were added to Blackbird State Forest with funding from Delaware's Open Space Program.

Information and Education. Education is a vital component of each of our technical programs. The Delaware Forest Service aims to further inform and educate all Delaware citizens about the importance of Delaware's forest resources and the need to properly manage these resources. In FY13, staff provided forestry educational programs on a wide range of topics to nearly 20,000 participants in Delaware's schools, civic clubs, communities, and organizations.

The work of the Delaware Forest Service is targeted toward the goals in its 2010 Statewide Forest Strategy. Fulfilling all 78 of the performance goals over a five-year period will help address the most important issues facing our forests in tough economic times.

I hope you find this an informative report on our major program accomplishments. The Delaware Forest Service continues to fulfill its mission to **conserve, protect, and enhance Delaware's forests** through education, management, and professional assistance. I encourage you to contact any of our offices or visit dda.delaware.gov/forestry if you need forestry or shade tree assistance or wish to learn more about the Delaware Forest Service.

Michael A. Valenti

Michael A. Valenti, Forestry Administrator



Through its Forest Conservation Program, the Delaware Forest Service helps landowners and communities improve and better manage their forest resources through technical assistance and educational programs.

FOREST CONSERVATION

One of the challenges facing today's forests is poor management. Many of Delaware's rural forests are managed for timber production. Because it can take at least 40 years to grow a mature crop of timber, many landowners will only harvest timber once during their lifetime. Because of these infrequent harvests, landowners are not regularly exposed to the forest management techniques that would help them better achieve their forestry objectives. The Delaware Forest Service offers professional assistance to help these landowners.

Many local communities also suffer the consequences of poor urban forest management. Many do not have professional management plans for their tree resources (street trees and trees on other public lands), a complete inventory of these trees, or the expertise to manage them. Consequently, many urban forests do not produce their full range of benefits, such as energy conservation and temperature moderation.



The Delaware Forest Service Urban and Community Forestry Program awarded 27 grants in the amount of \$108,342 for community tree projects, invasive species management, and activities to improve air and water quality in the Chesapeake Bay Watershed.



Urban and Community Forestry Program

The Urban and Community Forestry (U&CF) Program provides technical assistance to cities, towns, communities, developers, and local governments to help develop community forest management plans and street tree inventories. Foresters also review proposed developments to conserve and protect urban forest resources. In addition, annual community forestry grants are offered to various organizations for tree management and tree planting projects on publicly owned lands.

Urban and Community Forestry Grants. As part of its U&CF Program, Delaware Forest Service offers grants to municipalities, educators, non-profit organizations and government agencies for tree planting and tree management projects on public lands. Since the program's inception in 1991, the Delaware Forest Service has awarded over \$1.75 million to more than 200 organizations to improve their urban forest resources. In FY13, the Delaware Forest Service provided \$108,342 for 27 urban and community forestry projects in Delaware. Grants are made possible by the U.S. Forest Service's U&CF program and state funds. Grant recipients must provide a 50-50 cost share match which can be met through volunteer labor, donated materials and services, or additional funds such as a local representative's street funds.

Tree management grants help to fund community projects such as street tree inventories and hazardous tree removal. **Tree planting grants** promote proper planting and tree care and the reestablishment of forested areas in urban settings.



TREE MANAGEMENT GRANTS

Organization	Award
Bancroft Village	\$2,800
Bellevue State Park	\$3,200
City of Delaware City	\$4,500
Edenridge	\$3,800
Friends of Historic Riverview Cemetery	\$3,000
Main. Corp. of Westover Hills	\$4,000
Service Corp. of Westover Hills	\$2,250
Sharpley	\$4,700
Town of Elsmere	\$3,000
TOTAL	\$31,250

TREE PLANTING GRANTS

Organization	Award
City of Newark	\$4,750
Kent County Parks	\$2,600
Tavistock	\$2,500
Town of Frankford	\$1,000
Town of South Bethany	\$3,500
Fairthorne MC	\$2,500
Bethany Beach	\$1,400
Villages of Old Landing	\$1,500
TOTAL	\$19,750



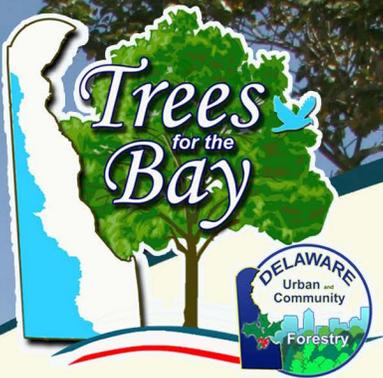
This tree planting project at Delaware Technical and Community College's Georgetown campus was funded by an urban and community grant.

CHESAPEAKE BAY GRANTS

Organization	Award
Bay Pointe	\$5,000
Del. Tech. Community College	\$500
Greenwood Elementary	\$3,750
Town of Greenwood	\$500
TOTAL	\$9,750

INVASIVE SPECIES MANAGEMENT

Organization	Award
South Bethany	\$3,076
Kent County Levy Court	\$25,000
City of Newark	\$11,400
Ardentown	\$3,116
Arden	\$4,000
Ardencroft	\$1,000
TOTAL	\$47,592



In FY13, the Delaware Forest Service U&CF Program partnered with the Department of Natural Resources and Environmental Control (DNREC) Division of Watershed Stewardship's annual Rain Barrel Sale Program. Any resident of a Delaware community located within the Chesapeake Bay who purchased a rain barrel was eligible to receive a coupon good for a free tree or trees up to \$125 in cost from a list of participating retailers. This effort led to the planting of 93 trees in the Bay Watershed.



U.S. Representative John Carney, EPA Regional Administrator Shawn Garvin, Greenwood town officials, and local Woodbridge High School FFA students joined with DNREC's Division of Watershed Stewardship and the Delaware Forest Service to plant trees within the Town of Greenwood as part of long-term efforts to limit urban stormwater runoff and reduce nutrients and sediments from flowing into the Chesapeake Bay. The Urban and Community Forestry program provided trees for the project as part of its Chesapeake Bay Grant funding. The U&CF Program also helped fund a school project that planted 32 new trees at the Woodbridge Elementary School.



Enhancing Water Quality IN THE CHESAPEAKE BAY

Woodbridge FFA students and their teacher Fred Brock helped with the planting project.



At right, the Forest Service's Henry Poole, Kyle Hoyd, and Marcia Fox teamed up with DNREC's Watershed Assessment Section Manager John Schneider.





Gathered to plant a redbud tree to celebrate Delaware State University as a Tree Campus USA are (from left): Dr. Dyremple Marsh, dean of the College of Agriculture and Related Sciences, Michael A. Valenti, Delaware State Forester, John Ridgeway of Toyota (a DSU alumnus), Dr. Susan E. Yost of DSU's Claude Phillips Herbarium, President Dr. Harry Williams, senior Syrena Taylor, and Mary Widhelm, Arbor Day Foundation program manager.



Photo courtesy of Delaware State University



TREE CITY USA®

Wilmington, Delaware has now been a Tree City USA for 20 years! Celebrating at the annual Arbor Day ceremony in Brown-Burton Winchester Park are local students and (from left) Jen Bruhler of the Delaware Center for Horticulture, Claude McCrea, Jr., city Parks and Recreation Director, and Ashley Peebles, Trainer-Educator for the Delaware Forest Service.



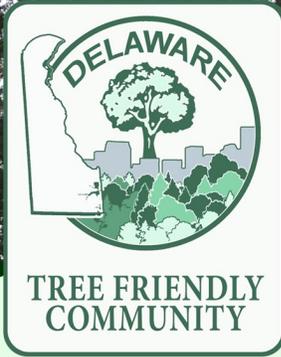
Tree City USA Program

With guidance from the U&CF Program, 15 Delaware municipalities qualified as a Tree City USA through the National Arbor Day Foundation in FY13. The Tree City USA Program is a community improvement program designed to recognize municipalities that promote and enhance their forest resources. To be certified as a Tree City USA community, a town or city must meet four standards:

1. establish a tree board to develop and administer a public tree management program,
2. develop a community tree ordinance that designates the tree board and gives them responsibility for writing and implementing an annual community forestry work plan,
3. annually spend a minimum of \$2 per resident on its community forestry activities, and
4. celebrate Arbor Day with a ceremony that includes a proclamation from the mayor and council.

DELAWARE TREE CITY USA COMMUNITIES

New Castle	Kent County	Sussex County
Ardentown	Dover	Bethany Beach
Delaware City	Dover AFB	Blades
Newark	Milford	Fenwick Island
Odessa	Smyrna	Lewes
Wilmington		Rehoboth Beach
Village of Arden		



TREE FRIENDLY COMMUNITIES

New Castle County

Brennan Estates
 Edenridge I & II
 Friends of Historic Riverview
 Reserve at Hockessin Chase
 Sharpley
 Tavistock
 Wawaset
 Westover Hills Section A
 Westover Hills Section C

Sussex County

Bayside
 Baywood
 Creekside
 Coveseide
 Dockside
 Lakeside
 Seaside

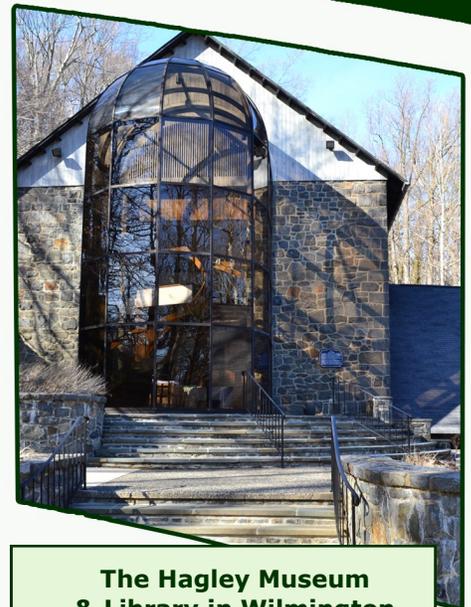
Tree Friendly Community Program

Delaware's "Tree Friendly Community Program" recognizes communities and homeowner groups that are committed to protecting and enhancing our state's urban forest resources. Sixteen communities achieved this honor in FY13, which is awarded to communities that have achieved at least three of the following:

- an annual ceremony to promote community forests,
- a tree project that enhances existing urban forests,
- a community forestry management plan,
- a community tree ordinance that protects trees,
- a tree commission or tree board, or
- a tree budget of \$1 per residential household.



Urban and Community Forestry Program Coordinator Kyle Hoyd meets with Dr. Greg Dahle, Associate Professor at West Virginia University, and Hagley Museum's Richard Pratt, who hosted the conference at the historic Library and Soda House on February 19 and 20 in Wilmington.



The Hagley Museum & Library in Wilmington

3rd Annual Arborist and Tree Care Seminar

The 3rd Annual Delaware Arborist and Tree Care Seminar was held at Wilmington's Hagley Museum and Library on February 19 and 20.

The event was attended by 302 tree care professionals and arborists, who could earn up to 11.5 continuing education credits for ongoing certification by the International Society for Arboriculture (ISA). Speakers included author and lecturer Don Blair from Sierra Moreno Mercantile Co., Dr. Greg Dahle from West Virginia University, Jason Lubar from Urban Forestry Consultants, Brian Kunkel from the University of Delaware, Vinnie Cotrone from Penn State Cooperative Extension, and Todd Davis from Delaware's Department of Agriculture.

3rd Annual
**Delaware
 Arborist &
 Tree Care
 Seminar**



Don Blair, author of the book *Arborist Equipment*, demonstrated the importance of following proper safety procedures and work practices as well as the need to utilize appropriate protective gear and equipment.



Vinnie Cotrone, an urban forester with Penn State University's Cooperative Extension, presented talks on recent research on fertilizers and biostimulants, as well as how to establish healthy trees in the urban landscape.



Attendees could earn up to 11.5 continuing education credits from the International Society of Arboriculture (ISA).

In FY13, the Delaware Forest Service supervised the planting of 176,700 seedlings on 346 acres of private land in Delaware.

Landowner Assistance

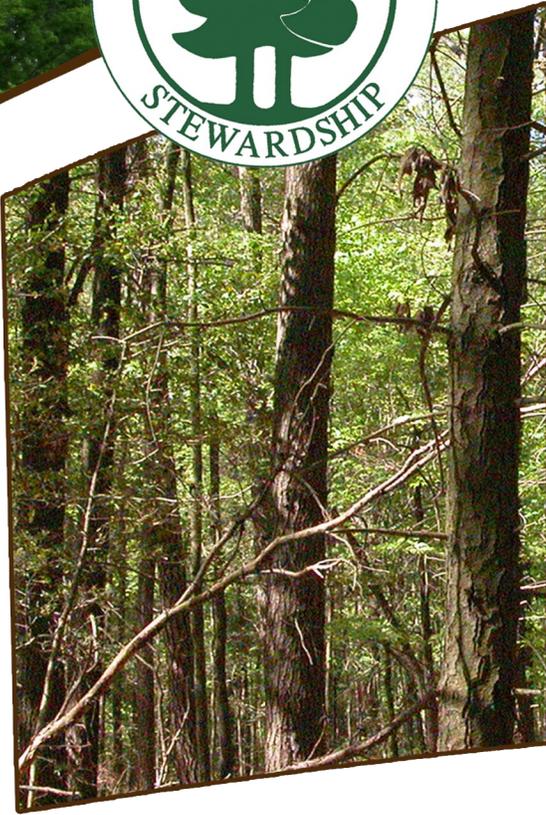


Private Land Management

The Delaware Forest Service assists private landowners in all aspects of forest management. This assistance ranges from the supervision of tree planting and timber stand improvement activities to the preparation of long-term management plans.

In FY13, Delaware Forest Service staff supervised the planting of 176,700 seedlings on 346 acres of privately owned land in Delaware, all of which was for loblolly pine reforestation. Seedlings for these projects are acquired through the Maryland Forest Service nursery located in Preston, Maryland.

Under the supervision of Delaware Forest Service staff, private contractors plant the seedlings. Delaware Forest Service foresters also wrote 37 stewardship plans for 2,118 acres. The DFS also supervised herbicide (Arsenal TM) application spraying for twelve landowners on 427 acres.



Forest Stewardship

The Delaware Forest Stewardship Program introduces landowners to innovative land management techniques. Any resident who owns five to 1,000 acres of forested land, or land that can be converted to forestland, is eligible for assistance.

Delaware's Forest Stewardship Program began in June 1992 in cooperation with the U.S. Forest Service State & Private Forestry Program. The Forest Stewardship Committee, consisting of landowners, foresters, and natural resource managers, helps the Delaware Forest Service develop and promote the program. The Delaware Forest Service helps landowners develop a stewardship plan, offers advice on plant species, and oversees tree planting and timber stand improvement projects.

This fiscal year, state service foresters prepared 37 stewardship plans for properties in New Castle, Kent, and Sussex Counties. These plans provided management goals and prescriptions for 2,118 acres of land. Property owners established plans for soil and water quality protection, forest resource management, and wildlife habitat enhancement.

CREP Program

The Delaware Forest Service partners with NRCS/CREP to further the forested buffer goals of USFS/DFS, and continue to monitor existing CREP sites for ongoing compliance.

New Forest Management Database

The Delaware Forest Service adopted a new forestry activity tracking system in 2010 that relies on Geographic Information System (GIS) technology. However, in FY13, DFS will migrate to SMART2, a national web-based data entry and report writing geodatabase tool designed to support the Forest Stewardship Program. Administered by the U.S. Forest Service, SMART2 is implemented by state forestry agencies to allow field foresters, working with private landowners, to prepare Forest Stewardship Management Plans, record contact and other information, track plan implementation accomplishments, and spatially display and analyze plan locations and associated activities.

Program Highlight

New Contractual Agreement

The Delaware Forest Service has entered into a contractual agreement with the University of Delaware, Cooperative Extension. This agreement is designed to improve the management of the American Tree Farm System program in Delaware and increase promotion of biomass and bio-energy use in Delaware. This one-year agreement will be re-evaluated at the end of the term and extended or modified as necessary. While the Delaware Forest Service has always worked closely with Cooperative Extension, this exciting, new, expanded relationship has the potential to greatly benefit forest landowners in Delaware.



Through its Forest Protection Program, the Delaware Forest Service strives to protect and improve the health of Delaware's forests through wildfire prevention, watershed protection, and forest health monitoring.

FOREST PROTECTION

A second major challenge facing Delaware's forests is their long-term health. Wildfire, forest pests (insects and diseases), non-native invasive plants and animals, as well as improper forest management techniques all threaten our forests. Each year, hundreds of acres of Delaware forests are affected by wildfire, exotic species, or forest pests such as gypsy moth, dogwood anthracnose, or the southern pine beetle. Also, an improperly conducted forest management activity such as a timber harvest can not only adversely impact the forest itself, but also affect other resources such as water quality.



The Delaware Forest Service assisted 31 of Delaware's 60 volunteer fire companies (52%) with wildfire suppression, loaning of equipment, or training.

Wildland Fire Program

Wildland Fire Program

The Delaware Forest Service has a cooperative agreement with the U.S. Forest Service to assist local volunteer fire companies with wildfire suppression and prevention on Delaware's one million acres of undeveloped land, which includes 380,000 forested acres.

Delaware's volunteer fire companies can request the assistance of Delaware Forest Service personnel, when needed, for wildland fire suppression. The Delaware Forest Service provides trained personnel, a bulldozer equipped with a fire plow to establish firebreaks, as well as wildland fire suppression tools such as fire rakes, hose, and collapsible backpack water tanks. In FY13, the Delaware Forest Service responded to 13 wildfires that burned nearly 35.5 acres.

Volunteer Fire Assistance Program

Each year, through the U.S. Forest Service's Volunteer Fire Assistance (VFA) Program, the Delaware Forest Service offers a grant to help provide basic wildland firefighting courses for volunteer firefighters. This year, \$16,257 was awarded to the Delaware State Fire School to help offset the costs of hosting these courses for volunteer firefighters.





Volunteer Fire Assistance Program

The 60 volunteer fire companies in Delaware are vital to the Delaware Forest Service because they provide much of the manpower and equipment to fight wildfires in the state.

In FY13, the DFS assisted 31 of the 60 volunteer fire companies (52%) with wildfire suppression, loaning of equipment, or training. The Delaware Forest Service administered a seventh round of the equipment grant program available to all Delaware volunteer fire companies. Fire companies can receive up to \$3,500 for the purchase of wildland fire-related equipment and tools; these grants require an in-kind match from the fire company.

Thirteen fire companies are committed to receive a total of \$32,000 in matching federal funds to add tools and equipment to their wildland firefighting inventories. This grant program is a very efficient way to use federal dollars to assist volunteer fire companies throughout Delaware. Over the previous seven years (2006–2012), volunteer fire companies received \$191,346 in assistance and matched that amount with \$319,181.

For every federal dollar that was spent, another \$1.67 in non-federal funding was matched to the VFA grant program.

VOLUNTEER FIRE ASSISTANCE GRANTS

Fire Co.	Station #	County	Award	Items
Talleyville	25	New Castle	\$3,500	New brush truck, hose, reel, lights
Smyrna	44	Kent	\$1,000	Personal protective equipment
Dover	46	Kent	\$3,500	ATV, skid unit, trailer
Felton	48	Kent	\$1,500	Hand tools, ATV unit upgrades
Harrington	50	Kent	\$1,500	PPE, hose, nozzles, chainsaws, hand tools
Hartly	51	Kent	\$1,970	Class A foam
Houston	52	Kent	\$3,500	Wildfire cache trailer, hose, PPE
Leipsic	53	Kent	\$720	Hose reel, leaf blowers
Little Creek	54	Kent	\$2,000	Hose for brush truck
Marydel	56	Kent	\$3,500	Brush truck skid unit and pump
Frankford	76	Sussex	\$3,500	Brush truck upgrades, hose reel, lights
Indian River	80	Sussex	\$3,500	Hand tools, foam, hose for brush truck
Laurel	81	Sussex	\$2,310	Hose and nozzles for brush truck
TOTAL			\$32,000	



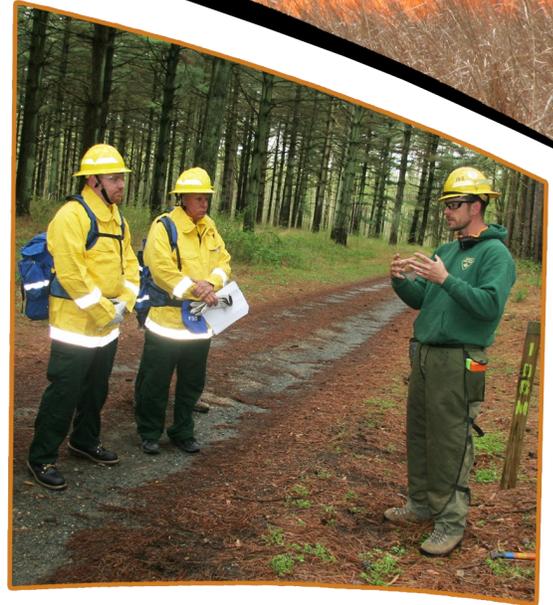
Wildfire Training

Each year, members of the Delaware Forest Service assist with the training of volunteer firefighters at the Delaware State Fire School. This year, a total of 56 individuals completed basic courses.

Courses included Basic Firefighter Training, Introduction to Wildland Fire Behavior, Introduction to the Incident Command System, and Human Factors in the Wildland Fire Service.

To complement classroom courses in wildland fire, the Delaware Forest Service hosts an annual Fire Camp that **simulates a western firefighting assignment**. This year's one-day event was held on April 20 at Blackbird State Forest near Smyrna, where a total of fifty-one volunteers received hands-on training in wildfire control.

To augment the fire camp, this year the Delaware Forest Service also offered a standard 8-hour refresher on May 5 at Blackbird State Forest. This was similar to fire camp but without the field exercises and live burn. Five individuals attended this training.



The annual DFS Fire Camp was held at Blackbird State Forest on April 20.

Cost-Share Assistance Grants

The Wildland Fire Program offers cost-share assistance grants to communities to reduce the danger of wildland fires and is used to perform vegetation management activities to reduce problematic fuels such as the giant reed grass phragmites. In FY13, seven grants totaling \$40,675 were awarded with State Fire Assistance (SFA) funding.

Communities receiving these funds were: Pickering Beach (20 acres), Blackwater Village (10 acres), Bethany Bay (15 acres), Bowers Beach (20 acres), Slaughter Beach (25 acres), the City of Lewes (60 acres), and Pot-Nets (20 acres). SFA funding requires a 50-50 cost-share match with non-federal funds, which communities typically supply through volunteer labor, donated materials and services, or additional cash funds.

Prescribed Fire Program

In FY13, the Delaware Forest Service continued with a successful prescribed burning program, completing nineteen controlled burns for a total of 200 acres. Low intensity, prescribed fires provide benefits to the environment in many ways. For example, existing fuel loads are eliminated thus negating the possibility of a subsequent high intensity wildfire, the soil is enriched with nutrients that will help existing trees and the next generation of herbaceous plants, and habitat for a variety of animal species is greatly enhanced. The Delaware Forest Service plans to continue prescribed burning in years to come.



The Delaware Forest Service conducted a controlled burn at Brandywine Creek State Park in Wilmington on March 27 in cooperation with officials from DNREC.





August 2012: Wildland Fire Crew Assignment to Idaho's Sawtooth National Forest

First Row (left to right): Chris Skrobot of Claymont, Stephen Johnas of Wilmington, Nathaniel Sommers of Smyrna, Jonathan Richardville of Wilmington, Michael Sethman of Middletown, Guy Cooper of Frankford, Henry Poole of Townsend, Todd Gsell of Townsend and Samual Topper of Federalsburg, MD. Back Row (left to right): Glenn Gladders (Crew Boss) of Dover, Howard Harrison of Wilmington, Scott Veasey of Millsboro, Timothy Moore of New Castle, Daryl Trotman of Ellendale, Brian Ward of Houston, Jeffrey Wilson of Clayton, Todd W. Shaffer of Atglen, PA, Patrick Gilchrist of Townsend, and John Cirafici of Milford.



Wildland Fire Highlight

Through annual wildfire training sessions, a partnership with the Delaware State Fire School, and the opportunity for trainees to experience firsthand the western wildfire environment, the Delaware Forest Service continued to recruit volunteers for the wildland firefighting program in FY13. While the number of active red carded individuals has decreased slightly this year, the DFS continues to mobilize fire crews, engines, and single resources whenever the need arises.

Crew Assignment

On August 6, 2012, the Delaware Forest Service mobilized one 20-person Type 2 Initial Attack crew to the Cave Canyon, Minidoka, and Enclosure fires, all on the Sawtooth National Forest in central Idaho.

Crew Member	Position
Glenn Gladders*	CRWB
Howard Harrison	ICT5
Scott Veasey	ICT5
Timothy Moore	ICT5
Daryl Trotman*	ICT5(t)
Brian Ward	FALB
Jeffery Wilson	FALB
Todd Shaffer	FALB
Patrick Gilchrist	FFT2
John Cirafici	FFT2
Christopher Skrobot	FFT2
Steve Johnas	FFT2
Nathaniel Sommers	FFT2
Jonathan Richardville	FFT2
Matthew Herrold	FFT2
Michael Sethman*	FFT2
Guy Cooper*	FFT2
Henry Poole*	FFT2
Todd Gsell*	FFT2
Samual Topper*	CRWB(t)

* Delaware Forest Service

Forest Health Program

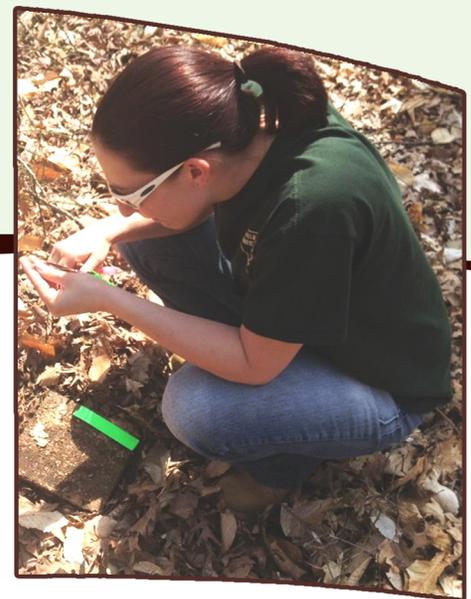
Technical Assistance

This year, the Delaware Forest Service conducted 144 insect and disease diagnosis visits to landowners and homeowners. Our Forest Health Specialist also provided four insect, disease, and forest health educational programs to 208 students.

Southern Pine Beetle (SPB)

Delaware continued to participate in the Southwide Southern Pine Beetle Pheromone study with four traps in Sussex County in May 2013. Counts of SPB and predatory clerid beetles from these traps confirmed that SPB populations remain at low levels in Delaware. However, a small SPB outbreak at the Camp Barnes portion of Assawoman State Wildlife Area was discovered in January of 2013. Delaware Forest Service foresters helped State Wildlife Area personnel control the several small SPB spots in the area. Additionally, 14 insect traps were set up in the spots to monitor SPB population levels and pull some of the insects away from the other uninfected loblolly pines (the host tree) in adjacent stands. The area will continue to be monitored carefully. A cold winter spell with overnight temperatures at 5 degrees Fahrenheit or lower would greatly help in controlling SPB populations.

The Delaware Forest Service works with landowners, other state agencies, and educational institutions to conduct forest pest surveys and give technical assistance. Foresters emphasize a range of prevention strategies to help minimize the destructive effects of serious forest pests and use permanent forested plots to monitor the condition and health of our forests on an annual basis.



Asian Longhorned Beetle

Asian longhorned beetle, *Anoplophora glabripennis*, is a newcomer to North America and is killing street trees in New York, New Jersey, Massachusetts, and Ohio. This potentially harmful insect is native to Japan, Korea, and southern China. Unlike other longhorned beetles, which usually attack stressed, diseased, and dying trees, *Anoplophora glabripennis* attacks and kills healthy trees. Consequently, there is concern that this exotic insect will become a major pest in North



America. Asian longhorned beetles attack maple (*Acer*) trees including Norway, red, sugar, and silver maple, and boxelder. Horse-chestnut (*Aesculus*) and willow (*Salix*) trees are also attacked. Adult beetles are shiny black with white blotches on their hardened outer wings. Their antennae are very long with alternating black and white banding on each segment. The most obvious sign of a beetle infestation is the presence of their characteristic circular exit holes on the trunk, branches, and exposed roots. The Delaware Forest Service began monitoring for this pest in the summer of 2012 with 10 large panel traps placed throughout the state, focusing on areas north of Dover. To date, no ALB has been found.

Gypsy Moth

Gypsy moth populations in Delaware were reduced by the fungus *Entomophaga maimaiga* in the mid-1990's. Populations appeared to be growing somewhat from 2006 through 2009 based on aerial surveys of defoliation, with up to 800 acres per year defoliated in southern Sussex County. Defoliation has since declined to almost nil in both 2012 and 2013. Wet springs in 2012 and 2013 have likely increased the effectiveness of the *Entomophaga* fungus, killing a large percentage of the gypsy moth larvae that eat the leaves of oak and sweetgum trees. Gypsy moth activity will continue to be monitored in coming years.



Forest health specialist Glenn "Dode" Gladders left the Forest Service for a position in New Hampshire after serving for over 10 years. He helped pioneer the use of GIS mapping technology, monitored the threat of forest pests statewide, and was a key part of the agency's wildland fire program. Gladders also oversaw the publication of the "Big Trees of Delaware," which tracks the largest trees in each species in the First State.

Emerald Ash Borer (EAB)

This Asian pest continues to spread to numerous eastern states, including Pennsylvania, New York, Maryland, Virginia, and recently Georgia and Connecticut. It feeds exclusively on ash trees and, in areas where it has been established for several years, kills all ash trees. Although only about **one percent of Delaware's forest trees are ash, street trees in some neighborhoods in New Castle County are almost exclusively ash.**



DDA staff continued to survey for this pest in 2013, using three survey techniques. First, the Delaware Forest Service assisted the Plant Industries Section by installing and servicing traps designed to detect EAB. Second, visual surveys were carried out in high-risk areas along the **I-95 and Route 1 corridors**. A "biosurveillance" technique using wasps that prey on EAB was also employed. No EAB was detected.

Sirex Wood Wasp

An exotic wood wasp, *Sirex noctilio*, has been found in the wild in New York State and Pennsylvania. This wood wasp attacks pine trees and represents a serious potential threat to Delaware's loblolly pine resource. Adults can disperse 20 miles or more. A survey program was initiated in Delaware in 2006 using Lindgren funnel traps baited with chemical lures. In 2013, 18 traps were placed in pine woodlots throughout the state, from Hoopes Reservoir in northern New Castle County to a site near Millsboro in southern Sussex County. Early detection would allow a more effective and timely response should this European pest be found here.

Beech Bark Disease

American beech (*Fagus grandifolia*) is a common tree in Delaware and is easily recognized by its smooth gray bark. A stately forest tree, beech also provides food for deer, squirrels, and, in much of its range, black bears. Unfortunately, a non-native disease complex called beech bark disease (BBD) has killed millions of beech trees in the northeast. Currently found from Canada down the Appalachians as far as West Virginia, BBD begins with infestation by a scale insect, followed by infection of a destructive fungus. Most of the beech trees in infested stands die within a few years.

Four sites in northern to central Delaware were surveyed for BBD in 2013 as part of a coordinated effort also involving New Jersey, Maryland, and West Virginia. At each site, at least 20 beech trees were inspected for the presence of scale and symptoms of BBD. Fortunately, beech bark disease was not found in Delaware in 2013. Surveys will continue in coming years as the disease continues its southward spread.

Watershed Protection

Forestry Practices Erosion and Sedimentation (E&S) Law

DFS foresters review E&S permits for all silvicultural operations over one acre and provide educational materials and programs to landowners and loggers. By using Best Management Practices, such as forested buffers along waterways, water quality is protected by minimizing erosion and sedimentation. The program stresses the importance of properly conducted activities on properties that contain, or are adjacent to, open water by conducting pre-sale inspections and educating loggers about the need to protect open water. In FY13, the Delaware Forest Service issued 116 permits on a total of 4,887 acres and conducted 247 site inspections. **Most of the state's silvicultural activities occurred in Sussex County (60 out of the 116 projects), followed by Kent County (30), and New Castle County (26).**

One of the Forest Service's performance measures is to increase the percentage of timber harvests on nonindustrial private forest (NIPF) lands that follow a forest management plan. While all timber harvests must have an approved E&S permit, Delaware does not require a forest management plan for a timber harvest. In FY13, 43 percent (1,160 of 2,718 acres) of NIPF harvests had such a plan.



The DFS issued 116 E&S permits on a total of 4,887 acres and conducted 247 site inspections.

Seed Tree Law

The Delaware Forest Service administers the Delaware Seed Tree Law that applies to all forested tracts of 10 acres or more containing a combination of at least 25 percent loblolly pine, shortleaf pine, pond pine, or yellow-poplar. Landowners with these woodlands must provide for reforestation of these lands unless there are at least 400 healthy, well-distributed seedlings present on each acre following the harvest.

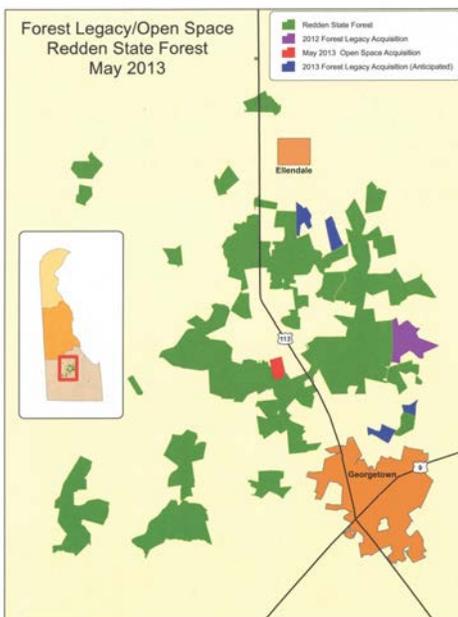
The Seed Tree Law was established due to the loss of thousands of acres of loblolly pine forests in Delaware between 1959 and 1986. Pine and yellow-poplar woodlands are vital to Delaware's economy and environment, and the Seed Tree Law will ensure the continued contributions of these important forests. In FY13, 23 harvests totaling 1,750 acres were approved under the Seed Tree Law. The Delaware Forest Service will continue to monitor these properties to ensure proper reforestation.

Forestland Preservation

Delaware's Forestland Preservation Program (FPP) was established in July, 2005 to preserve forests through perpetual conservation easements. In FY13, the Delaware Forest Service provided forest management plans for 23 farms being considered for the Aglands Preservation Program. These 23 farms (one in New Castle County, 13 in Kent County, and nine in Sussex County) cover over 780 forested acres.

Forest Legacy Program

In FY13, the Delaware Forest Service completed the \$595,000 purchase of the historic Wilson Farm, an 85-acre parcel including forestland that became part of the 12,500-acre Redden State Forest near Georgetown, Sussex County. The deal was funded by **Delaware's Open Space Preservation Program and marks the latest acquisition in efforts by the DFS to sustain working forests, improve water quality, and protect wildlife habitat in key environmental regions on the Delmarva Peninsula.**



Through its Forestry Education Program, the Delaware Forest Service attempts to better educate and inform all citizens about the importance of our forests.

FORESTRY EDUCATION

The lack of public knowledge about the importance of our forests, as well as the professional services available to assist landowners and communities with the management of these forests, is the third major challenge facing our forests. Currently, many landowners and other community leaders might be unaware of the Delaware Forest Service programs available to help them manage their forest resources. In addition, many other Delawareans are not familiar with the educational and recreational opportunities available at our State Forests.



Delaware State Forests

The Delaware Forest Service is committed to both providing and expanding its numerous educational, recreational, and demonstration opportunities on over 19,000 acres at Blackbird, Redden, and Taber State Forests. These valuable public resources are managed for a variety of objectives, including wildlife habitat, recreation, timber production, natural resource education, and water quality.

Blackbird State Forest

Blackbird State Forest, located northwest of Smyrna, covers approximately 5,600 acres. The ten tracts of Blackbird State Forest are open to the public for nature walks, hiking, jogging, and horseback riding all year. It features a 1/2-mile, wheelchair-accessible wildlife and nature interpretation trail on the Tybout Tract and the Blackbird Education Center on the Meadows Tract. Long-range management plans for Blackbird State Forest include timber production, wildlife habitat, recreation, soil and water protection, wetland and endangered species protection, and public education.

Blackbird State Forest Education Center

In FY13, the staff continued providing educational programs at the Blackbird State Forest Education Center on the Meadows Tract. Complementing the facility at Redden State Forest, the center has two meeting spaces and interactive displays.



Moviemaking at Blackbird State Forest

W2 Productions, part of Delaware's Department of Technology and Information (DTI), shot live-action sequences of its cyber-security awareness movie, "R.O.I: Return on Investment," at Blackbird State Forest. Written and directed by DTI's Michelle Wright, the movie debuted at the agency's annual Cyber-Security Workshop in February of 2013 as a way to highlight the need to take action against the growing threat of cyber-attacks.



Blackbird State Forest Highlights

- 10,000 oak seedlings were planted on 25 acres of the Borthwick East parcel.
- Acquired the 23-acre Straughn property connecting the Naudain Tract with the Cypress Complex.
- Re-built the bulkheads of the bridge over Blackbird Creek.
- Constructed a loop trail on the Dulany Manor Tract.
- Worked with staff from the Department of Technology and Information (DTI) and members of the Delaware Independent Filmmakers to shoot live-action sequences for a short film highlighting the importance of Cyber-Security Awareness, which was shot at the Tybout Tract.

Blackbird State Forest is also a popular site for special events. Groups holding activities in FY13 included: Delmarva Driving Club, Wicomico Hunt Club, MS Bike-a-thon, the Delaware Webfooter Walking Club, Envirothon training, Markland Medieval Re-enactment Club, and East Coast K-9 Search and Rescue training.



Taber State Forest

Taber State Forest is located west of Harrington on Burrsville Road and remains in its natural, primitive state. The 1,242-acre forest is open daily for public hiking, observing wildlife, and in-season hunting.



Taber State Forest Highlights

- A 13-acre young stand of pine regeneration from a 2008 clear-cut was sprayed with Arsenal herbicide to release the loblolly pines from various hardwood species.



SCOUTING GROUPS PLANT 4,000 TREES AT BLACKBIRD STATE FOREST

Boy Scouts and Girl Scouts from the Delmarva Peninsula joined with adult volunteers to plant 4,000 seedlings on a 10-acre tract of Blackbird State Forest on April 6 and 7, 2013.

This was the second year in a row that the scouts worked on a tree planting service project at Blackbird State Forest.



Boy Scouts, Cub Scouts, and Girl Scouts gathered in what was previously a 10-acre field on Blackbird Forest Road north of Smyrna Saturday and Sunday to plant an estimated 4,000 tree seedlings as a service project. The State of Delaware recently purchased the land to add to Blackbird State Forest. Boy Scouts, Cub Scouts, and Venture crews from throughout the Two Bays District and Girl Scouts from the Chesapeake Bay Council participated in the project. Pictured here, Jarod Batman (left) from Boy Scout Troop 135 of Smyrna and his brother, Kyle Batman, from Cub Pack 76 of Smyrna take another seedling out of their bag to plant in their row on Saturday.



Boy Scouts from Troop 142 of Leipsic helped with the service project to plant 4,000 trees in a newly-purchased section of Blackbird State Forest on Saturday. Pictured (from left) are Jason Boyles, of Smyrna, Jeremy Lepore, of Dover, and Justin Boyles, of Smyrna, digging holes and planting tree saplings in their row. BEN MACE PHOTOS

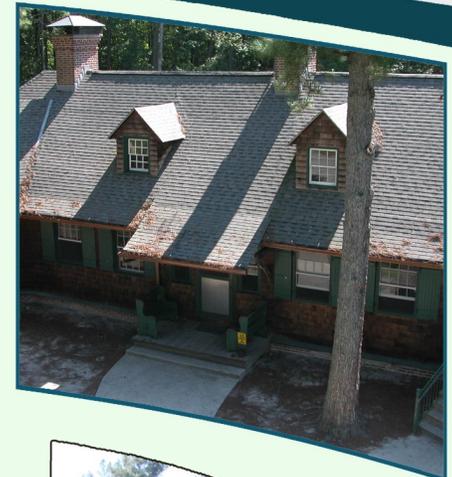
SCSunTimes.com
Serving the Smyrna-Clayton area in Delaware

Story by Smyrna Clayton Sun-Times Editor Ben Mace

Redden State Forest

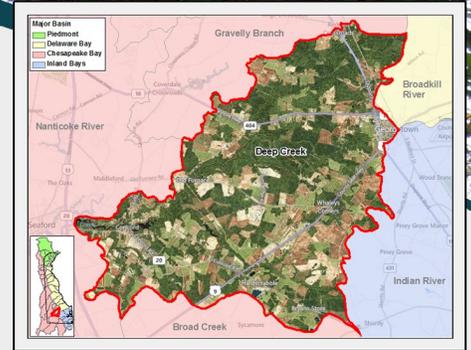
Redden State Forest, located north of Georgetown, covers over 12,340 acres. These lands are managed on a multiple-use basis, including timber production, wildlife habitat improvement, soil and water quality protection, and recreational use.

Redden State Forest remains a popular site for special events. Groups holding annual meetings, events and training were: Delaware Army National Guard, 4-H Horse Advisory Council, DHSS Georgetown Center/Woodside Center/1st State Senior Center annual Halloween party, 4-H/University of Delaware annual pumpkin contest/youth retreat/counselor training, Sussex County DeIDOT Union members annual Christmas Party, Boy Scouts of America camping/badge projects/field exercises, various church group retreats, various state agency meetings, Gee You Will Project annual retreat and meeting, Del-Tech Upward Bound math and science event, FFA retreat and training, Antique Auto Club annual show and picnic, Delmarva Adventure Sports adventure race and 1900 Club H.A.M. radio operator emergency communication exercise.



Redden State Forest Highlights

- Redden State Forest acquired an additional 85.4 acres on the Jester Tract, bringing the total acres up to 2,235. The new purchase was the former Wilson-Waddell farm, which is located on the west side of Rt. 113, south of Deer Forest Rd. and east of Hunting Club Rd.
- A stream side restoration project was completed on Redden State Forest's Deep Creek Tract. It serves as a key link in restoration efforts of the Nanticoke River Watershed which in turn aids in the overall improvement of the Chesapeake Bay. This project lowered the bank level in 17 key locations along the edge of the Deep Creek ditch to connect the artificial waterway to its natural floodplain. The new configuration allows waters during flood stage to divert from the main ditch channel into the forest to trap sediment and filter nutrients and pollutants. In addition to improving the overall water quality, the project will aid in reducing flooding downstream and offer additional habitat for species found in forest wetland ecosystems.



The Delaware Forest Service's Guy Cooper (above, left) and Mike Green (right) used heavy equipment to carefully move soil along the waters of a tax ditch on Redden State Forest's Deep Creek Tract. The work was part of a strategy to "reconnect" the artificial waterway to its natural floodplain, which enables excess rainfall to flow into nearby woodlands and allows the forest to serve as a natural filter that absorbs excess sediment, nutrients, and pollutants.

Chesapeake Bay Restoration Plan

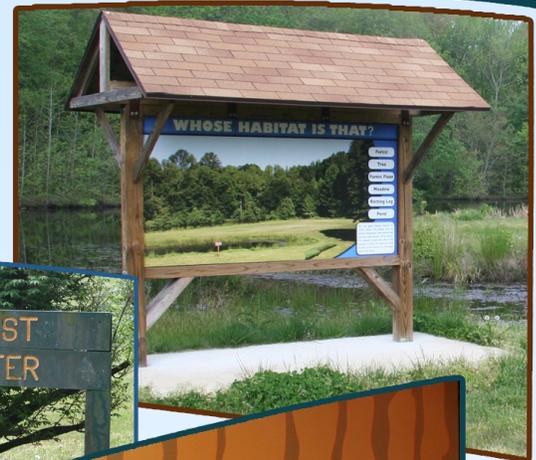
Information and Education

Information and Education

The Information and Education Office coordinates all of the Delaware Forest Service's information and education activities. Staffed by a full-time Community Relations Officer and Trainer-Educator, it informs the public of the agency's services and also provides quality environmental education opportunities.

Education Centers

The Delaware Forest Service operates and manages education centers at Redden State Forest and Blackbird State Forest. Both house a variety of interactive displays on Delaware's forests and their management, with comfortable work areas for students and teachers to participate in educational activities. Each center has a classroom for indoor meetings, along with outdoor educational trails for a more dynamic learning experience. In FY13, two schools comprising 120 students visited the Blackbird State Forest Education Center and three schools totaling 236 students used the Redden State Forest Education Center. At both centers, students learned about Delaware's forests and how people and animals utilize them. Other organizations also used the education centers for meetings.



celebrate Arbor Day



Delaware Forest Service staff performed seven Arbor Day ceremonies at elementary schools across the state, reaching 820 children. Staff also participated in three community Arbor Day celebrations statewide.



Students at Holy Cross Elementary School in Dover celebrated Arbor Day with a tree planting at their school.

Education Programs

Arbor Day Overview

The Delaware Forest Service sponsors annual Arbor Day activities including a poster contest and free seedling program and presents Arbor Day and tree education programs in schools statewide during April.



Volunteers from Dover's Modern Maturity Center helped wrap seedlings for students.

Annual Free Seedling Program

Students in kindergarten to grade five received over 4,000 seedlings through the annual Free Seedling Program. Classrooms must participate in the Arbor Day Poster Contest to be eligible for free seedlings and tree programs. Delaware Forest Service staff delivered the seedlings to public and private schools statewide. Local senior volunteers individually package the seedlings for the students. These volunteers provide an invaluable service to the Delaware Forest Service as they separate, wrap, and bag each seedling. Staff then delivered the seedlings directly to the schools to help ensure seedling survival.

In addition, Delaware Forest Service staff performed seven Arbor Day ceremonies at elementary schools across the state, reaching 820 children. Staff also participated in three community Arbor Day celebrations statewide.



Representatives David L. Wilson (R-35) and Harvey R. Kenton (R-36) joined State Forester Michael Valenti in honoring Stephen Venable, winner of the Arbor Day Poster Contest.



Governor Jack Markell attended the Arbor Day event to recognize all of the school poster contest winners, including kindergartener Brooke Rhue from Rehoboth Elementary.



Students helped plant a tree at the Blackbird State Forest Education Center.



Arbor Day Ceremony AT BLACKBIRD STATE FOREST

Arbor Day Poster Contest

The Delaware Forest Service invites schools K-5 throughout the state to participate in the Arbor Day Poster Contest. This year's poster theme was "Trees are Terrific...in All Shapes and Sizes!" Participating elementary schools organized preliminary contests and forwarded the first, second, and third place entries to the Delaware Forest Service for final judging. Poster contest winners were selected for each county in the following categories: kindergarten, first and second grade, third and fourth grade and fifth grade. Each winner received an ornamental tree to plant at their school and a \$50 U.S. Savings Bond. Stephen Venable, a fourth grade student at Honor Academy was selected as the overall state winner. Stephen received an additional \$50 U.S. Savings Bond.

In all, over 141 classes from 65 private, public, and home schools, and youth groups participated in the FY13 contest, and winners were honored at the state's Arbor Day Ceremony at Blackbird State Forest. Once again this year, Governor Jack Markell presented the students with their savings bonds.



From left, Michael Casmay and Michael Trotta from Delmarva Power accept the Tree Line USA award from State Forester Michael A. Valenti. Delmarva Power sponsored this year's Arbor Day and paid for trees at school planting events.



In FY13, Governor Jack Markell joined DFS Trainer-Educator Ashley Peebles for a Smokey Bear education program at Our Lady of Fatima Elementary School in New Castle.



Fire Prevention

Every October (Fire Prevention Month), Delaware Forest Service staff offer fire prevention programs featuring Smokey Bear to first grade classrooms and other community groups. In FY13, staff provided 105 fire education programs to 7,369 students. Other efforts included participation in volunteer fire company open houses and community events.

This year, Delaware Forest Service personnel presented fire prevention materials to children and their families at several community events, including the Abbott's Mill Fall Festival in Milford, the Apple Scrapple Festival in Bridgeville, several community holiday parades, and volunteer fire company open houses.

Other Educational Programs

Throughout the year, the Forest Service offers special educational programs for students as well as training programs and presentations for community groups and other organizations.

Ashley Peebles attended the regional PLT coordinators meeting in Newport, Rhode Island.



Adult Programs

Forest Service staff performed 20 workshops for over 626 people on such topics as grant writing, urban tree care, and GIS/GPS. Attendees included other state agencies, nature center managers, and community leaders.

Student Programs

Delaware Forest Service staff visited 40 classrooms as part of our speakers bureau. Nearly 1,700 students learned about wildland firefighting, insects and forest ecology, wood products, watershed protection, and urban forestry through in-class presentations, Super Science Day activities, and science fairs.

Project Learning Tree

Project Learning Tree (PLT) is an international, award-winning education curriculum designed to help all educators weave the environment into their everyday lesson plans. Through hands-on, interdisciplinary activities, PLT helps young people learn how to think, not what to think, about environmental issues. In FY13, 152 elementary teachers, early education providers, and pre-service teachers attended a PLT workshop.

Volunteer Corps

The volunteer corps is an organization open to the general public, by which volunteers assist staff with educational activities. For the 14th straight year, members of the Kent County Retired Seniors Volunteer Program (RSVP) at the Modern Maturity Center in Dover wrapped seedlings for the Arbor Day Free Seedling Program. Nineteen volunteers wrapped over 4,200 seedlings for public and private school students statewide.

Other Highlights

- The Delaware Forest Service administers the forestry component of the Delaware Envirothon, a statewide competition for both public and private high school students. As part of the event, staffers train team coaches and student participants and also develop forestry test materials. Sixteen teams competed in the 2013 Delaware Envirothon. The winners, Wilmington Charter School, competed in the National Canon Envirothon on August 4 in Bozeman, MT.



- The Delaware Forest Service also participated in the FY13 Delaware Science Olympiad for middle and high school students. **The Science Olympiad's mission is to promote and improve student interest in science and to improve the quality of K-12 science education throughout the nation.**



Taryn Davidson and Ashley Peebles prepare the tree identification portion of the FFA Forestry Career Development Event.

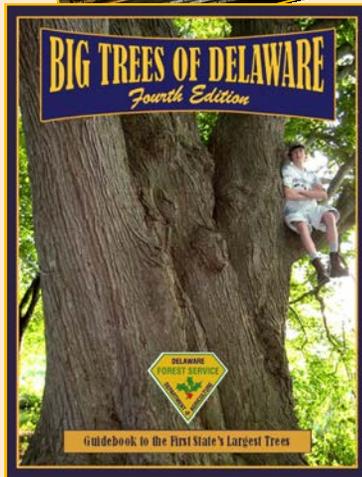
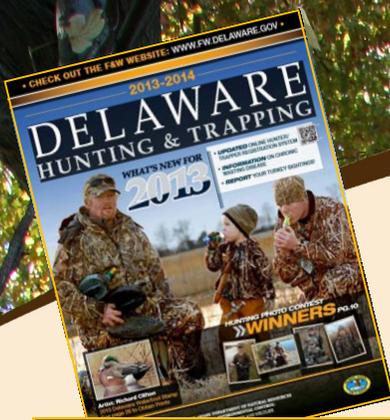


Teams are advised of the schedule for the test rotation stations at the event.

- The Delaware Forest Service hosted the FFA Forestry CDE (Career Development Event) on June 20, 2013. Six high school teams competed in categories that included tree and tree disorder identification, map reading, compass and pacing course, and measuring trees for board foot volume. PolyTech FFA went on to represent Delaware at the 2013 National Forestry CDE in Indianapolis, Indiana.



PolyTech FFA team members at the equipment ID station.



Publications

In FY13, the Delaware Forest Service published the *Fourth Edition of Big Trees of Delaware*, a comprehensive and colorful booklet that serves as a compilation and guidebook to the biggest trees of each species in the First State. In addition to informative facts on each of the included trees, the most recent edition also features full-color graphics by noted illustrator Rebecca Merrilees, used by permission from Macmillan Publishing Limited. A grant from the Northeastern Area State and Private Forestry Urban and Community Forestry Program funded the booklet's publication.

Also in FY13, the Delaware Forest Service published the Fourth Edition of the hardcover book, *Delaware Trees*, by William S. Taber—Delaware's first and longest-serving state forester who guided the agency for 43 years. The book is a detailed volume of Delaware's important native and non-native species.

In addition, the photo by Robin James of Middletown entitled "Three Generations," showing Blackbird State Forest conservation technician Michael Sethman and his son Zach Sethman and grandson Nicholas Sethman with waterfowl decoys and calls at Augustine Wildlife Area near Delaware City, was featured on the 2013-2014 edition of the Delaware Hunting and Trapping Guide, published by DNREC's Fish and Wildlife Division.

Training and Development

Computer Applications

ArcGIS Desktop I

Fire

S-130 Basic Wildland Firefighting
 S-190 Intro to Wildfire Behavior
 S-290 Intermediate Wildland Fire Behavior
 S-211 Portable Pumps/Water Use
 S-212 Wildland Fire Chain Saws
 I-100 Basic Incident Command
 L-180 Human Factors in the Wildland Fire Service
 HECM Refresher RS-271
 A-110 Aviation Haz-Mat
 MH-1 Aviation Firefighting Basic Fire Behavior & Tactics
 Ground Support Unit Leader (NWCG)

Forest Management

Annual Pesticide Conference
 Intro to Tree Risk Assessment of Communities
 Cooperative Weed Management Areas
 Introducing PA EAB management Plan
 Delaware Invasive Species Council Annual Meeting
 3rd Annual Arborist & Tree Care Seminar

Using Tree Canopy Assessments for your Community Trees
 Assessing Street Tree Survival Rates
 Longleaf Pine Establishment & Management
 Benefits of Conservation Easements

Personnel

Leadership Skills for Women
 The Power of Leadership Phase I
 Selection Interviewing
 Constant Contract Newsletter Training
 Sexual Harassment Prevention
 Conflict Resolution
 Put it in Writing
 Coaching & Counseling
 Correcting Performance Problems
 Principles of Quality

Miscellaneous

Community Assistance Reporting System
 Forest Legacy Information System (FLIS) 2.0
 First State Financials (FSF) Upgrade Smartdocs
 Federal Excess Property Program
 FSF Clearing House Training

BUDGET SUMMARY

FISCAL 2013 OPERATING BUDGET (Actual)

General Funds

Salaries and associated costs (16.5 positions)	1,100,319
Contractual Services	18,100
Supplies & Materials	20,200
Energy	18,700
Travel	0
General Funds Subtotal	\$ 1,157,319

Appropriated Special Funds

Salaries and associated costs (2.5 positions)	141,867
Capital Outlay	45,793
Contractual Services	35,326
Supplies & Materials	73,783
Energy	3,305
Travel	6,865
Revenue Refund	630
Appropriated Special Funds Subtotal	\$ 307,569

Federally Funded Cooperative Programs (includes funds for 4 positions) *

Forest Health Protection:

Forest Health Management	50,000
Forest Health Monitoring	23,000

Cooperative Fire Protection:

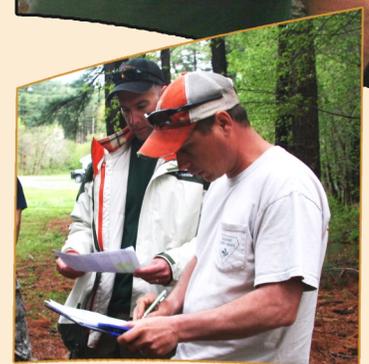
State Fire Assistance	126,588
Volunteer Fire Assistance	32,096

Cooperative Forestry:

Urban and Community Forestry	200,000
Forest Stewardship	91,200
Chesapeake Bay	36,000
Forest Legacy Administration	30,000

**Federally Funded
Cooperative Programs Subtotal \$ 588,884**

Total Fiscal 2013 Budget \$ 2,053,772



** These federally funded cooperative programs are provided through the U.S. Forest Service, Northeastern Area State and Private Forestry budget.*



DELAWARE *Forest Service* 2013 ANNUAL REPORT

STAFF AND PROGRAM DIRECTORY

TOLL FREE NUMBER 1-800-282-8685 (Delaware Only)

Forest Service Headquarters (Dover)	302-698-4500
Forestland Preservation	302-698-4548
Urban and Community Forestry Urban Forestry Grant Program Technical Assistance	302-698-4578
Blackbird State Forest (New Castle Co.) Redden State Forest (Sussex Co.)	302-653-6505 302-856-2893
Forest Health Specialist Insect and Disease Identification	302-698-4553
Educational Programs Smokey Bear Project Learning Tree Speakers Bureau	302-698-4551
Wildfire Protection Program Wildfire Hazard Mitigation Grants Volunteer Fire Assistance Fire Classes Fire Crew	302-698-4548
Landowner Assistance Program Forest Stewardship Planning Cost-Share Assistance Watershed Protection	302-856-2893
Community Relations Program	302-698-4552



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dda.delaware.gov/forestry