



Forestry News

A Newsletter of the Virginia Department of Forestry

MISSION:

"We Protect and Develop Healthy, Sustainable Forest Resources for Virginians."

TEXAS FIRE RESPONSE

Submitted by Steve Counts, regional resource forester, Region 6

The state of Texas started having fires around December 27th and lost more than 20,000 acres and 20 residences. On January 3rd, I flew out of Tri City, Tennessee, to Dallas, Texas, to serve as a Type 2 Safety Officer for the Southern Area Blue Team. The Incident Management Team was responsible for initial attack for the state of Texas from an Incident Command Post in Granbury, Texas.

The team organized the state into five separate branches each supervised by the Texas Regional Fire Coordinator. I was assigned to the south branch that covered most of central Texas from Austin to Houston and San Angelo. This area had experienced several large fires and some homes had been lost.

I had been to Texas on two previous occasions as a tractor operator and engine strike team leader. The fire behavior, drought and fire activity were much worse than when I had been in Texas previously. The number of woodland homes exposed to wildfire was extremely high, especially near the metropolitan areas around Austin.

The Texas Forest Service (TFS) has greatly expanded its operations in the western part of the state. They now have regional fire coordinators assigned to areas roughly equivalent to our regions. The coordinator responds at the request of the local volunteer fire department. The local fire chief is the Incident Commander unless they turn the incident over to the coordinator. TFS does not respond on initial attack unless requested by the VFD.

My job as safety officer was to monitor personnel for safety and to assist the Incident Commander as needed to ensure safe operations. I gave a safety briefing each morning to all personnel and held an after-action review following each fire response. I investigated one traffic accident involving a contract vehicle carrying firefighters. Luckily, no one was hurt in this incident.

I was asked to extend my tour from 14 to 21 days due to a shortage of safety officers. I had been covering a 13-county area around La Grange, Texas. This town is famous for a somewhat true-to-life movie starring Burt Reynolds and Dolly Parton. During my second week, I was given two additional areas around



Steve Counts, safety officer, checks the weather conditions in Texas.

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Message

FROM THE STATE FORESTER



Before I begin, I want to take this opportunity to thank Governor Tim Kaine for reappointing me as your State Forester. I very much appreciate his endorsement of the good work we've been doing for the citizens of the Commonwealth. I also want to express my gratitude to Secretary Bloxom and to all those individuals and organizations who supported my reappointment. I am humbled by your kind words.

This year's seedling harvest has gotten off to a terrific start. The folks at Garland Gray have been lifting and grading pine seedlings since early January. The staff at Augusta began lifting and grading hardwoods in February. Twenty-two of the 47 tree species we sell were sold out in January, and, if things continue as we expect they will, we should surpass the 33 million seedlings we sold last year. Our nursery program remains strong in an era when other states' programs are scaling back or ceasing operations.

Of course, all those harvested seedlings need to go someplace. And most of you are involved in the reforestation of thousands of acres of Virginia land. The planting and inspections you are performing will ensure landowners accomplish their goals and that the Commonwealth will continue to have forest lands that provide numerous economic and ecological benefits for all citizens.

Spring fire season began February 15th, and the 4 PM burn law is in effect until April 30th. Because of your hard work and commitment, we've seen the annual number of fires and acres burned decline in each of the past few years. Regardless of the terrain and in spite of the many dangers you face while suppressing wildland fires, you are protecting our fellow Virginians and their property. Keep up the good work; maintain your equipment; ensure your personal readiness, and stay safe out there.

Congratulations and thank you to all who were involved in making the 85th Annual Meeting of the Appalachian Society of American Foresters (APSAF) a resounding success. More than 275 forestry professionals, spouses and forestry students from Virginia, North Carolina and South Carolina took part in this gathering. I heard nothing but positive feedback from the attendees. Each of you who served on the committee should be justly proud of your efforts.

Lastly, I'd like to congratulate Region 1 Regional Forester Ed Zimmer and retired Forest Research Manager Tom Dierauf on their awards. APSAF honored Ed with its 2005 Volunteer Services Award, and Tom was presented the national Society of American Foresters 2004 Presidential Field Forester Award. Both awards are well-deserved recognition of the dedication and commitment to excellence of these two fine individuals.

Carl Harrison
State Forester



Youth EDUCATION

FIELD IDENTIFICATION COURSE

Submitted by Joshua McLaughlin, forester, Augusta Forestry Center

Hugh K. Cassell elementary academic gifted and talented students learned how to identify native tree species in Augusta County. The ID course was broken down into fall, winter and spring sessions. Joshua McLaughlin, forester at Augusta Forestry Center, wanted the students to learn and know how to ID trees in different seasons.

McLaughlin worked with the students to identify different native species and research natural history. Each student has a notebook to compile facts about each tree.

The students also took a field trip to the nursery in October. During the field trip, students obtained acorns to plant their own seedlings. Each student is making observations to notice growth. McLaughlin will finish the session in late April.



Josh McLaughlin teaches tree identification to elementary students.

WISE COUNTY NATURAL RESOURCE DAYS

Submitted by Lawrence Tankersley, forester, Region 6, Wise County

Lawrence Tankersley, Randy Fleming and Chris Owens participated in Wise County's Natural Resource Days this fall. Natural Resource Days is an educational event sponsored by the Wise County Chamber of Commerce to promote student awareness of proper management of our natural resources. The event is hosted by the Powell River Project, a research and educational facility owned by Penn Virginia Corporation and managed by Virginia Tech. The event started in 1989 as 'Coal Appreciation Days' and in 2001, the name was changed to Natural Resource Days to include forestry and agriculture. Over a two-day period, every 6th grade student in the Wise County School System comes to the event. There were more than 500 students at this year's event. The Chamber of Commerce treats everyone to a hot dog lunch. The students are rotated through 14 stations, which include a variety of topics: management of our forest in Virginia, wildlife, coal extraction, mined land reclamation, grazing land management, environmental concerns, economics and dependency on our natural resources. Instructors are provided with specific Standards of Learning (SOLs) objectives that they are to cover at their station. After they return to school, they are required to submit essays, short stories, journalism papers and artistic depictions on their experience at the event. Teachers submit class winners to the Chamber of Commerce, which determines the top three winners in each category for the county. County winners receive a prize and recognition for their efforts. Everyone seems to enjoy the event.

The event has been a learning experience for me, also. I always try to ask the students a few questions of my own – I suppose as my own evaluation of our educational system. It's surprising to learn what these students know about natural resources at such a young age. I find that some of their preconceptions are factual; unfortunately, some are not. I imagine that it's extremely difficult to educate students on a global environment while keeping a local perspective.

APSAF MEETING IN CHARLOTTESVILLE

*Submitted by John Campbell, director,
Public Information Division*

The 85th annual meeting of the Appalachian Society of Professional Foresters was held January 25–27 in Charlottesville. More than 275 forestry professionals, spouses and students from Virginia, North Carolina and South Carolina took part in the event that was hosted by members of the Skyline Chapter of the Virginia Division of the Society of American Foresters (SAF).

The focus of this year's gathering was: People, Products & Practices – the 3Ps of Forest Certification. According to many in attendance, this was the first time that representatives from the Forest Stewardship Council (FSC), the American Tree Farm System (ATFS), and the Sustainable Forestry Initiative (SFI) were on the same agenda to discuss their respective certification processes and the benefits offered by each.

"It was a terrific opportunity for folks to be able to compare and contrast these important certification programs," said John Scrivani, director of resource information for the Virginia Department of Forestry (VDof). "We received a lot of great feedback from people as they were able to evaluate the programs side by side."

Pre-conference sessions held Wednesday included: a day-long pesticide recertification workshop; a tour of the woods, grounds and mansion of Montpelier – the home of the James Madison, 4th President of the United States, and an APSAF Leadership workshop. The tour of Montpelier was led by Mike Eckley and Jonathan Pine. Spouses spent part of the day at Monticello – home of Thomas Jefferson, 3rd President of the United States. They also toured Jefferson Vineyards; had lunch at Michie Tavern, and enjoyed a bit of shopping at The Tavern Gift Shop and The General Store.

Many of the 70 college students in attendance participated in a field trip that included a stop at Lesesne State Forest to see some of the American Chestnut research underway. Wayne Bowman and Martha Warring were instrumental in the field trip.

Sessions held Thursday and Friday included: a presentation on the Southern Center for Sustainable Forests; Certifying Pennsylvania Hardwood Management; the benefits of being an SAF Certified Forester; Building Assessments Systems; Markets for Certified Products; the benefits of being an International Society of Arboriculture Certified Arborist, and the Certification and Auditing Process.

At Thursday's awards luncheon, two members of the VDof family were recognized for their contributions to the Forestry profession. Region 1 Regional Forester Ed Zimmer received the 2005 APSAF Volunteer Service Award, which recognizes "special, sustained and voluntary service on behalf of the SAF." Retired Forest Research Manager Tom Dierauf received the 2004 SAF Presidential Field Forester Award, which recognizes "foresters who have dedicated their professional careers to the application of forestry on the ground using sound, scientific methods and adaptive management strategies."

Ed said, "I am honored to be selected as the 2005 Volunteer Service to Forestry award winner for the Appalachian Society of American Foresters. My involvement with SAF has always been a rewarding experience, and I thank everyone in SAF for the time and experiences we have shared."

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Greg Meade (left)

Tom authored more than 100 research publications during his 38-year career with VDOF.

Lee Spradlin of Mead Westvaco presented the Presidential Field Forester Award. He said, "Tom, you are not only an outstanding field forester, you have also made the work of field foresters all across the country much better. It is a sincere pleasure to present you with this award."

Numerous VDOF staffers were among those who organized the 85th annual meeting. They include: Greg Meade, David Powell, Patti Nylander, Karen Stanley, John Scrivani, Charlie Becker, Becky Woodson, Brenda Taylor, Gregg O'Donnell and Janet Muncy.

State Forester Carl Garrison, who gave the official welcome address at the opening session, said, "I'm very proud of everyone who had a hand in making this gathering such a success. It requires a lot of time and effort on the part of many people to make these events go as smoothly as this one did."



Participants enjoyed the opportunity to speak to a variety of exhibitors.

LANDOWNER IN CRAIG COUNTY RECEIVES THE STATE FORESTRY AWARD

Submitted by Bob Boeren, forester, Region 5, Botetourt, Craig and Roanoke counties

I recently presented the Mountain Castles Soil and Water Conservation District (SWCD) 2005 Forestry Award to Bruce Ingram from Craig County during its annual awards dinner. I also attended the Virginia SWCD annual meeting in Williamsburg to see Bruce receive the Virginia (State) Forestry Award. The award was presented by Don Drake, retired DOF forester from Rockbridge County, who is the Area I chair for the SWCD. This was the first time I had the opportunity to have someone recognized in forestry at the state level.



NATIONAL CONFERENCE ON URBAN ECOSYSTEMS

Submitted by Bob Boeren, forester, Region 5, Botetourt, Craig and Roanoke counties

Bob Boeren, Paul Revell and Barbara White recently attended the 2005 National Conference on Urban Ecosystems in Charlotte, North Carolina. The conference is organized by American Forests that has a vision of healthy forest ecosystems growing in every community across the country and worldwide. A few of the ways they accomplish their goals is through Global ReLeaf, Wildfire ReLeaf, Urban Ecosystem Analysis, CITYgreen GIS training, and the National Register of Big Trees. Some of the sessions included using the Green Infrastructure Approach to Strategic Planning, using GIS for Environmental Education, Regulatory Compliance: Air and Water Measure Up, Urban Forests Forum on the 2007 Farm Bill, and Managing Natural Resources to Maximize Values, Goods, and Services. Not only were these sessions very informative but as important is networking with people from many communities across the country.



REGION 4 DOZER TRAINING

*Submitted by Doug Audley, forester,
Region 4, Amelia County*

By now, everyone is aware that Fusiform rust-infected loblolly pine seedlings made their way into the planting mix in 2004 before the problem was discovered. This led to a lengthy survival check process in 2005, in which many of you were involved. Where these inspections found fewer than 250 uninfected seedlings surviving, DOF is re-planting these stands without additional cost to our landowners. This is challenging DOF personnel to get the work done efficiently and as inexpensively as possible.

As several of these affected stands are located in Amelia County, Sue Tennant (Region 4 assistant regional forester) turned this challenge into an opportunity to provide tractor training to some full-time and part-time personnel from her area. These personnel spent a day constructing firebreaks and light-dozing one of these stands to aid the site preparation effort. This training provided valuable "seat time" to these personnel while they accomplished some of the needed site preparation work.

Forest technicians William "Billy" Hall (Buckingham County) and Steve Morris (Cumberland County) began the day with a safety briefing and an introduction to the operational controls on the tractors. The group then split up and some constructed lines while others "light-dozed" a smaller block on the tract.

During the day, Steve Morris supervised as new employees practiced loading and unloading the tractors on the transports.

A total of 12 area personnel participated as either instructors or students in this training. In addition to Steve and Billy, they included new Area Foresters Kirby Woolfolk (Nottoway) and Justin Funk (Cumberland) as well as part-time operators Jason Wharam (Buckingham), Bill Elliott (Powhatan) and Clark Wade (Powhatan/Amelia). Area Foresters Gwynn Tyler (Buckingham), Pat Murphy (Prince Edward) and Doug Audley (Amelia) used this opportunity to gain experience operating the new (or new to them) machines now in their counties. Sue Tennant oversaw the training and Forest Technician Ricky Gravley (Amelia) assisted in overseeing the training during the morning.

Special thanks to John Miller for providing lunch for the group with money from the Fire Protection budget. Thanks to Sue Tennant for organizing this training and for getting the lunches and snacks for everyone. And finally, thanks to the instructors and participants for helping with the site preparation work on this tract.

Participants of the tractor training held recently in R-4 included (l to r) Bill Elliott, Clark Wade, Kirby Woolfolk, Justin Funk, Steve Morris, Billy Hall and Doug Audley. (Not pictured are Ricky Gravley, Gwynn Tyler, Pat Murphy, Jason Wharam and (behind the camera) Sue Tennant.



Employee

SPOTLIGHT



Jana Maynard has joined Region 6 as a Program Support Technician replacing Janet Barr who retired September 30th, 2005.

Jana was born and raised in Abingdon, Virginia. She is a graduate of Abingdon High School and attended East Tennessee State University. While Jana might be new herself to state government, her father retired from the Department of Environmental Quality around 2000 after 30 years with that department.

Jana worked in Richmond, Virginia, as an office manager for a construction equipment company for 15 years.

She took the last few years off to be with her children while they were in their early development years. She did volunteer work for their school and local church, and the Boy Scouts. Jana says while she truly enjoyed this time with her children, she is eager to continue her career. Jana has one daughter – Amanda age 9, and one son, Matthew, age 7.

She decided Abingdon would once again be a nice place to call home, which led her to apply and become a member of our DOF team. Jana brings a great deal of knowledge and experience from outside of DOF and has hit the ground running since her starting date – attending a Regional meeting and a PST NIMS training meeting and a eVA training class.

Welcome to DOF, Jana!



JANA MAYNARD,
REGION 6

*Submitted by Ed Stoots, regional forester,
Region 6*

TEXAS FIRE RESPONSE,

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Fredericksburg and Bastrop, Texas.

Some lessons I learned from this incident were how dedicated the Texas State Forest Service employees were. They were working 21 days straight and taking one day off in between. They had been in fire response mode for the past two to three months. They have a very professional core of employees who seemed to work well together. Texas uses technology to great advantage with satellite phones and Internet-based video conferencing. Each morning every field office held a daily briefing from Granbury over the Internet in real time. This was a very effective use of time and resources. The participants could look at maps and weather information at the same time the presenter was updating them.

Texas uses the federal fire management system extensively. State employees use the Crew Time Report and Emergency Equipment Time report to record time for personnel and equipment. They have a dispatch reporting program that allows all personnel to view the dispatch log for an ongoing fire. This system is very helpful in that all personnel can view the statewide fire situation in real time.

The three weeks I spent in Texas were very rewarding. I found that, as state wildfire agencies, we have a lot in common. The local people in Texas seemed to appreciate the out-of-state response of wildland firefighters. I feel that the lessons I learned will be very beneficial to me and to our agency in the future. I look forward to the opportunity to take another out-of-state assignment, and I encourage others to do the same. You just can't believe the feeling you get when you are helping others.

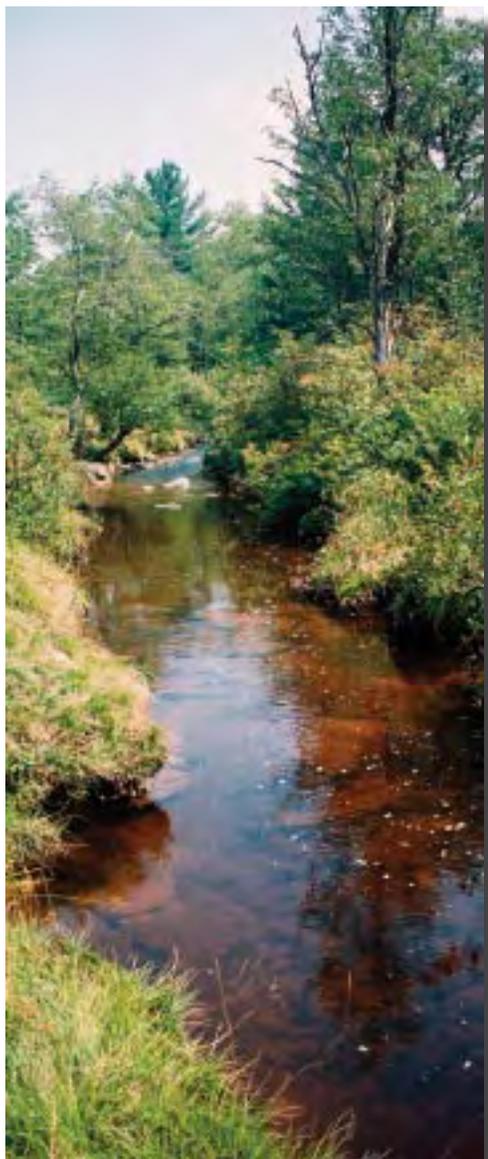


*The group is ready to respond at
Bastrop Staging.*

Water Monito

USING FOREST REFERENCE STREAMS TO UNDERSTAND SEDIMENT LOADS

Submitted by Samuel H. Austin, forest hydrologist, Resource Information Division



Since 1998, I have been quietly collecting water quality data and developing a network of continuously monitored forest reference streams. These streams flow through protected, mostly forested watersheds. They are, therefore, representative of the normal range of natural, or nearly natural, stream conditions. They exhibit few of the effects caused by human activities, such as road building, timbering or development.

Because they are relatively undisturbed, these streams serve as benchmarks or "reference points" describing stream conditions within their normal range of natural values. They provide a continuously monitored characterization of stream attributes in protected watersheds with older forests. These include indications of water quality, sediment movement and channel processes collected over the full range of water flows.

Over the past seven years, an extensive and robust data set has emerged, containing tens of thousands of data points describing the natural range of water turbidities, dissolved oxygen, pH, conductivity, temperature and bed particle sizes within a variety of natural channel types and across the range of natural water discharge rates. I am beginning to make these data available, along with new management tools that allow you to use them effectively, so that you might describe and better understand a number of parameters associated with streams that you have an interest in, or that you have a need to document or manage.

The most important of these parameters perhaps, from a forestry perspective, is sediment. This article highlights a number of sediment relationships that are now available and new sediment evaluation tools that will be made available to you soon.

In many ways, the timing of these developments, from a strategic point of view, could not be better. The full focus of EPA and DEQ programs to determine total maximum daily loadings of pollutants (TMDLs) will zero in on sediments beginning in 2007. As we begin as an agency to better understand the sediment loadings associated with forest streams and logging, we can do so mindful that we now have a two-year window of opportunity to ramp-up our knowledge base and management effectiveness in this regard. From my perspective, this is an exciting time!

WHAT DO WE HAVE?

Our reference streams exhibit natural variation in landscapes, geology and water flow patterns. They are organized using the Rosgen System of stream classification. The Rosgen System identifies seven classes and six subclasses of streams based on the streambed and floodplain form, and on the streambed sediment size. This allows effective comparison of reference values to information collected at other sites of similar classification, much as you might compare trees by species class.

With six reference sites now actively monitored, and additional sites coming on-line, a robust resource is available that you will now be able to draw upon.

Monitoring Update

HOW CAN WE USE IT?

This reference information is a valuable resource for understanding the water- quality consequences of forest management decisions and changes in land use. Reference data explain the natural conditions found in undisturbed freshwater streams in Virginia. They identify the natural range of physical, chemical and biological features in Virginia streams. Among other things, this information can be used to:

- Develop and evaluate Best Management Practices.
- Plan stream and watershed restoration projects.
- Identify the normal range and Total Maximum Daily Load (TMDL) of stream sediments.
- Identify the normal range and timing of water flows (in-stream flow criteria).
- Identify the normal range of stream water temperatures.
- Understand the normal channel geometry of healthy stream systems.
- Understand the normal bed sediment particle size distribution in healthy stream systems.
- Understand the normal water width, water depth and water velocity over the full range of water discharge rates (the hydraulic geometry).

INFORMATION SPECIFIC TO SEDIMENT LOADS

An array of information specific to sediment loads is available. This includes information describing the normal range of bed load sediments, the critical shear stresses needed to initiate sediment motion, and the normal range of suspended sediments expressed over the full range of water discharge rates.

New curves and equations describing natural suspended sediment loads, organized by Rosgen stream type, now allow us to quantify the natural load, and compare managed channels to a meaningful reference condition.

A unique feature of these relationships is that they are indexed to bankfull flow. This allows channels large and small, of the same Rosgen stream type, to be meaningfully compared with one another.

WHAT ELSE IS COMING?

In addition to curves and equations describing natural forest stream sediment loads, streambed sediments, and the critical water flow thresholds needed to initiate sediment movement, I will be making available a number of resource management tools in 2006. These include:

1. Written documentation and examples of how to use the stream sediment loading curves, streambed particle size distributions and critical water flow threshold calculations mentioned above.
2. A sediment equation processing program that allows you to easily determine if a stream's sediment load falls within or beyond the statistical

boundaries of the normal natural tendency.

3. A spreadsheet program that allows you to easily calculate watershed runoff rates using the widely accepted NRCS TR-55 method.
4. Sophisticated, easy to use system dynamics computer programs that allow you to model changes in water runoff and sediment load as a consequence of forest management actions or shifts in watershed land use.

In addition, training opportunities will be initiated, and I am available as always for individual visits.

WHERE MAY DATA AND TOOLS BE ACCESSED?

These resources are being posted for DOF employees in the Water Quality Monitoring section of the Resource Information portion of the Virginia Department of Forestry Intranet site. Some resources are also available to the public through the Water Monitoring Section of the Virginia Department of Forestry Internet site. The Internet site may be accessed at the following link: <http://www.dof.virginia.gov/wq/monitoring.shtml>

OPPORTUNITY

We have an opportunity now, and in the foreseeable future, to further develop, practice, and demonstrate our knowledge of forest water quality, within the context of thoughtful silvicultural prescriptions, an increasing statewide focus on sediment TMDLs, and rapidly escalating population and social pressures that demand superior natural resource analysis, planning, protection and management. We have an opportunity to lead with top quality natural resource information and insight. I look forward to continuing to work with you, and to support you, in this regard.

Resource Information

FOCUS

FACTORS AFFECTING EARLY EASTERN WHITE PINE SURVIVAL AND HEIGHT

Submitted by Jerre L. Creighton and Wayne F. Bowman, research foresters, Resource Information Division

Eastern white pine (*Pinus strobus* L.) is the most common and commercially important tree species planted in the mountains of southwest Virginia. In recent years, survival of eastern white pine (EWP) plantings has been variable and in many cases unacceptable. There are numerous possible reasons for seedling mortality, which may act alone or in combination to create plantation failures. Fortunately, a great deal of research has already been reported on this subject; the Virginia Department of Forestry research team has investigated a number of questions regarding how handling and planting practices may affect EWP survival and growth. A review of data from EWP plots installed in Virginia over the last 40 years suggests that low and/or variable first-year survival of EWP is not a new phenomenon.

The key question is – what causes the variation? Obviously, some factors beyond our control – such as drought, temperature extremes and insect or disease outbreaks – can and do cause mortality. Controllable variables that have been investigated include:

1. Increasing exposure while planting (i.e. carrying the seedlings in hand, exposed to sun, heat and/or wind) - even for a few minutes - causes increased mortality.
2. Root pruning at planting reduces survival, and increasing the severity of pruning multiplies the loss.
3. Increasing time in cold storage decreases survival.
4. Later planting dates decrease survival. Depending on location and climate, this effect begins to be expressed anywhere between May and late June.
5. Competing vegetation, especially sod in old-field settings, can cause significant first-year mortality.
6. Rough handling has been shown to decrease root growth potential and growth initiation in white pine. Dropping seedlings from a height of just 1-2 meters produces this effect, which could, in turn, reduce survival (although that has yet to be tested).
7. Clay dipping to protect roots has not been shown to consistently affect survival; it had a positive effect in one year and negative in the next.
8. Lifting and planting dates in November or December or lifting in late November or December with protected (i.e. boxed) storage until March planting appear to have little effect on survival and might be an option to expand the lifting window.
9. Increasing seedling size (over the range between $\frac{2}{32}$ - and $\frac{5}{32}$ -inch root collar diameter) does not affect survival but does significantly accelerate early height growth.
10. Planting depth does not consistently affect survival.
11. Root pruning in nursery beds improves early survival and height growth.

There are also a number of variables which have not been examined in EWP plantings, including:

1. Root protection using gel dip instead of clay dip;
2. Packaging method (traditional open-ended bundles vs kraft bags);

3. Transport effects (refrigerated vs open trucks);
4. Mycorrhizal inoculation of nursery beds;
5. Grading exposure effects; and
6. Rough handling effects (i.e. dropping/throwing seedling bundles or bags).

Tigner (2004) summarized observations from a 2003 test of lifting, handling, storage and processing factors. In March 2003, a 12-treatment study using one 20-tree row plot per treatment and replicated six times – once each in Augusta, Carroll, Floyd, Franklin, Rockingham and Washington counties – was installed. Observations from nursery operations indicated that staffing was inadequate to keep seedlings moving quickly from field to cold storage or from cold storage through the grading and packing process. In addition, field units did not always take appropriate measures to prevent desiccation of seedling bundles in transit from the nursery to local storage. The treatments tested in the study compared seedling sizes, grading exposures, planting depths, dipping treatments, lifting exposures, storage times and root pruning intensities.

Survival after one year ranged from 32 percent to 88 percent. Trees handled with the greatest care survived best. Hand lifting was better than operational lifting.

Storage exceeding three months and shallow planting greatly reduced survival. Extremely small seedlings survived poorly. Overall, the test reinforced the concept that numerous factors can contribute to EWP mortality, and most are avoidable.

Creighton and Bowman (2006) tested 18 treatments in a study replicated three times on each of three sites using 2-0 eastern white pine seedlings lifted at the Augusta nursery in February through April of 2005. This report summarizes the results of previous research and the first-year data from this study in Augusta, Floyd and Grayson counties. The data were averaged across study sites because statistical analysis showed no treatment x site interaction.

Seedlings exposed to the elements during transportation or planting and those stored for eight weeks initiated height growth significantly later than the others. Survival ranged from 46 percent to 91 percent and was reduced by cold storage over four weeks, prolonged exposure to sun and air during planting, and exposure during transportation. Seedling height averaged between 0.4 and 0.9 inches after one year, and was lower with increased cold storage, shipping exposure and planting exposure. Overall seedling performance was quite poor when two of these stressors were applied in combination. For example, only 17 percent of seedlings stored for eight weeks and then exposed to sun and air for 60 minutes before planting were acceptable (see Figure 1 and 2). There was no evidence that either exposure up to two hours during grading or application of gel root dip had any substantial effects on the seedlings' performance regardless of other factors.

Based on these results and previous research, the best practices to ensure eastern white pine survival include: avoid all exposure to sun and wind during planting; protect seedlings from drying and heating during transportation; plant earlier instead of later (February through April, depending on weather); control competing vegetation and sod in old-field plantings; minimize time in cold storage; plant the largest seedlings available and practical (to accelerate height growth); and avoid root pruning at time of planting.

References

- Creighton, J. L. and W. F. Bowman. 2006. Effects of storage, handling, and transportation on eastern white pine 1st-year survival and height. Occasional Report 126. VA Department of Forestry. Charlottesville, VA. 17 pp.
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Figure 1. Eastern white pine seedling performance. Unacceptable



Figure 2. Eastern white pine seedling performance. Acceptable



JOINT REGION 1 AND REGION 2 MEETING A SUCCESS

Submitted by Anna Cahoon, forester, Region 1, Prince George and Surry counties

Last October, Region 1 and Region 2 employees met at the Airfield 4-H Center in Wakefield for a three-day joint meeting. The attempt to promote information exchange and bonding among the neighboring regions proved successful.

On Wednesday, we met for an afternoon session of Geocaching. Upon arrival, we were assigned to teams of three or four. Each team used a Garmin GPS unit to enter coordinates of points scattered around the 4-H center. The goal of the exercise was to visit each point, locate a plastic bag hidden at that point, deposit a business card of a team member and collect business cards of Region 1 regional or assistant regional foresters that were found in bags at select points. This proved to be a good team-building exercise as teams worked together running across the camp, through the woods, down the path and often into the swamp (or down into the mud hole while trying to get to the end of the floating dock)!

The meeting officially began on Thursday with a host of guest speakers. Louis Verner from VDGIF spoke about Non-Game Management and Stewardship Plans. His message was that we can increase a property's wildlife values regardless of size or status using appropriate stewardship recommendations.

Brock Herzberg of the Virginia Farm Bureau spoke about Landbase Conservation. He explained the advantages of agriculture and forestal districts. Brock's presentation was followed by a case study of Southampton County presented by Region 1 Regional Forester Ed Zimmer. Dave Slack, Region 2 regional forester, finished with an overview of land conservation efforts in Region 2.

Carl Garrison concluded the morning session with a discussion of current DOF topics and opened the floor for a question and answer session.

Thursday afternoon, the group split in two and alternated visiting two field sites. We toured the Wakefield NOAA/National Weather Service facility and were given an overview of NOAA services and the regional benefits of their fire weather reports. We were also shown the different types of radar images that the office meteorologists evaluate. We also toured Windsor One Mill in Surry County where we learned about the process of using radiata pine shipped from Chile to create molding. We then toured the mill beginning with the raw imported wood to the finished product. This mill imports 40 trucks per month.

On Friday, we completed the joint regional meeting with regional breakout programs and four final presentations. Scott Detar with Georgia Pacific's Management Assistance Program discussed the benefits of the MAP program and how the DOF can work with the program to increase landowner benefits.

Chris Asaro showed a video on the Asian Longhorned Beetle and discussed the current forest health concerns of Virginia. Jerre Creighton reviewed current and upcoming DOF research projects, including biosolid application, pre-commercial thinning studies and planted versus natural studies. Janet Muncy discussed the current public information hot topics.

Overall, the joint Region 1 and Region 2 meeting proved to be a huge success. Foresters, technicians and PSTs were given time to exchange ideas with those who are usually separated geographically by the river. Whereas our two regions are often viewed as very different with forest species composition and urbanization, in reality there are a lot of issues that both regions share and there is a wealth of information that we can learn from each other.



Dennis Gaston takes a close look at molding made of radiata pine while on the mill tour.

REGION 1 SPRING MEETING

Submitted by Scott Bachman, assistant regional forester, Region 1

Region 1 staff congregated on Groundhog Day in Waverly for the 2006 Spring Meeting. Our program featured management of our historic resources and our financial resources.

Dr. Randolph Turner, director of the Tidewater office of the Department of Historic Resources (DHR), spoke about the rich and varied history of the Commonwealth of Virginia and how we as DOF field people can help to identify and protect the valuable resources our landowners have entrusted to them. We are covering historic lands every day. Old home sites, battlefields and even grave sites may be easy to identify, but some are not. Ancient Native American sites are even harder to locate.

Protecting these fragile sites is important to all of us, according to Dr. Turner. Logging and forestry activities are often the method for finding significant sites. Soil disturbance associated with logging may bring artifacts to the surface that may help identify a new site. If an area of greater than a quarter acre contains artifacts, this could be a significant site and should be recorded. As for property rights issues, the DHR cannot control what happens on private land, and reporting a site will not encumber a property. Dr. Turner told us that growing timber and following BMPs is one of the best ways to protect in-ground resources.

Other exciting things that Dr. Turner told us about were the scientific and scholarly value of several sites in Tidewater, Virginia. Sussex County is home to perhaps the most important prehistoric site in North and South America, Cactus Hill. The priceless information stored in the Sussex County sands are being studied by scholars. These types of finds are almost always on private lands and need to be protected from looters and trespassers.

As we near the 400th year of the Commonwealth, Gloucester County has taken on a new historical import. The documented home of Chief Powhatan has been located and is right where John Smith said it would be. This river front farm is the only place where John Smith and Powhatan both stood on the same ground. It is also possible that if the story of Pocahontas is true, that this is the place the famed story took place.

Al Calvo, a program administrator for the Virginia Deferred Compensation program, outlined the steps to enroll in this program and the benefits that you receive as a participant. He asked the group how many were enrolled in the program. About 75% of the audience was already in the program. What else would you expect from people that are always thinking 30-40 years into the future?

Our last speaker of the day was Mr. Paul Howe, executive vice president of the Virginia Forestry Association. Mr. Howe told us that he had visited every region in the DOF this year and had saved his visit to the #1 Region for last (ok, he really didn't say that but he was thinking it!). He gave us a synopsis of the current bills working their way through the General Assembly and how VFA is working to make things better for the DOF and the forestry community in Virginia. Paul also gave us a humorous analogy about how the law-making process in Virginia differs from other states.

We concluded the meeting with our annual recertification on fire shelter deployment and a random fire readiness inspection of pickup trucks and tractor/transport units. Each employee left the meeting with a strength band provided by our Common Health provider Maureen Mullin. We can all now shape up while we are waiting to head out the next fire!



Hylton Haynes and Randy Robinson repackage a practice fire shelter during the Region 1 fire shelter refresher at the regional meeting.



Justin Hancock shows Angela Conary and Jim Blackwell that he is prepared for fire season, compass in hand, as Region 1 conducts the annual fire readiness checks at the regional meeting February 2nd.



Paul Howe, executive vice-president of the Virginia Forestry Association, explained to the Region 1 staff the association's mission, accomplishments, and current issues in legislature during the regional meeting February 2nd.

Human Resources

NEWS

WELCOME!!!

Matt Jedra is our new Southhampton County forester. He has both his bachelor's and master's in forestry from Northern Arizona University. Most recently, he worked as a research forestry technician for the USDA Forest Service.

James McGlone is our new urban forest conservationist stationed at the Fairfax office in Region 3. James recently worked as a P-14 on the Chesapeake Bay project.

David Nabers is our new GIS Analyst. He received his bachelor's in geography from Georgia State University and his master's in geography from the University of Georgia. Most recently, he served as a GIS Analyst for F&W Forestry Services Inc. in Georgia.

RETIREMENTS

Jim Starr, director of Forest Management, retired January 1 after 36 years of service. Best wishes in your retirement!

FAREWELL & BEST WISHES

Clay Sawyers, technician in Patrick County, Region 5, resigned to join Virginia Tech Extension Service.

Kathy Bassett, administrative program specialist for Region 1, has left the DOF.

Steve Shelley, technician for Washington County in Region 6, has left the DOF.

MOVERS & SHAKERS

Terry Lasher, forester, Region 2, King William County, transferred to the forester position in Fauquier County in Region 3.

Bill Perry, technician for Fluvanna County in Region 3, has been promoted to the forester for Amherst County. He joined DOF a little over a year ago.

CONGRATULATIONS!

Derek Keiser, technician for Pittsylvania County in Region 5, married Kristy Mohler on February 4, in Buena Vista. Kristy's father is Ken Mohler, technician for Rockbridge County in Region 5. Best wishes to Derek and Kristy for a long, happy marriage; and our congratulations to Ken on his daughter's marriage.

NEW ARRIVALS

Mike Eckley, forester in Region 3, Orange County, and wife, Erin, on the birth of their first child – a daughter. Madison was born on December 2 and weighed 8 pounds 1 ounce.

CONDOLENCES

Brenda Taylor, administrative staff assistant at Central Office, lost her son-in-law in January at age 34. He leaves behind a wife and two young children.

Doug Audley, forester in Region 4, Amelia County, lost his mother who passed in January after an extended illness.

Ron Jenkins, director of General Services at Central Office, lost his father, Earl B. Jenkins, who passed away on December 9.

Anne Skalski, training coordinator in Human Resources at Central Office, lost her step-daughter in January. Stephanie Windle was 20-years-old. She succumbed to complications from a bone marrow transplant, which she received to treat her leukemia.

Ed Stoots, regional forester in Region 6, lost his father on December 19 after a short battle with lung disease. Mr. Gene Stoots was age 78 and a native of Pulaski, Virginia.

Lester Kennedy, retired from old Region 8 in Portsmouth, lost his wife, Arlene, on January 9.

Ed Rodger, former branch chief for Information and Education, and wife, Madeline, lost their son, Ed, in February.

KLING 'ARRESTED'

Submitted by Buck Kling, regional forester, Region 3

Buck Kling, regional forester, Region 3, was "arrested" and sent to "jail" at the Omni here in Charlottesville. The bail was money raised for the Muscular Dystrophy Association. The event was great success, raising more than \$45,000. This money will benefit hundreds of families in Central Virginia. The funds will be used to help provide much needed services, such as clinics at MCV and Children's Hospital, support group sessions, help with the purchase and repair of medical equipment, MDA summer camp for children and valuable research.





LOCKS OF LOVE

*Written by Scott Bachman,
assistant regional forester,
Region 1*

Anna Cahoon, forester for Prince George and Surry counties in Region 1, knows how to grow trees and hair. While it does not take as long to grow a long tress, it does take love to cut it.

Anna recently donated 14 inches of her hair to the Locks of Love program. Locks of Love utilizes donated hair (at least 10 inches) to make hair pieces for disadvantaged children who have lost their hair due to medical treatments.

Gina Rossetti, wife of Joe Rosetti, FIA forester in Region 1, donated her hair to Locks of Love after their wedding, inspiring Anna to do the same. Children who receive the donated hair can chose the style and the color they would like.



"I love my new hair style and the feeling that I've helped a child in need. It is hard enough being a kid; imagine having to face the world without any hair," Anna said.

To learn more about Locks of Love, visit its Web site at www.locksoflove.org.

QUALITY WORK GROUP SHOWS YOU THE MONEY

Submitted by Gregg O'Donnell, Public Information Division

Good ideas usually start with "what if I?" Now, Quality Work Group (QWG) wants to turn the "I" into "you," and get those good ideas out where everyone can use them. Your ideas, to improve a process or procedure, help drive our agency to success. DOF needs your ideas and suggestions, and has started a new incentive program to back it up.

"We get many ideas each month," said Charlie Knoeller, QWG chairman. "So the group decided that an award program might give an extra nudge to our folks. If you come up with an idea that helps you do your job better, send it in on a Form 157 and let everybody benefit."

You can benefit as well: QWG's "Best Idea of the Quarter" incentive program will give a \$25 cash award to an idea selected by the group. The award money is provided by Human Resources' Recognition Program. Only ideas approved by QWG and implemented by DOF will be eligible to receive the award.

Now your ideas can now pay off for you as well as DOF! Be sure to send your Form 157 to your QWG Representative.

HAPPY BIRTHDAY!

Kelley L. Wagner (R3) ~ Apr. 1
Wayne L. Perfater (R5) ~ Apr. 1
James C. Bowling (R4) ~ Apr. 3
Lawrence M. Dunn (Ret) ~ Apr. 3
Gale B. Washburn (R4) ~ Apr. 4
Orville L. Long (Ret) ~ Apr. 4
Paul M. Reier (R2) ~ Apr. 5
Carl B. Belew (CO) ~ Apr. 9
William R. Ruby (Ret) ~ Apr. 9
Ernest W. Thompson (CO) ~ Apr. 11
Zachary H. Dowling (R1) ~ Apr. 13
Joseph L. Lehnen (R3) ~ Apr. 15
David A. Milby (R2) ~ Apr. 16
Edward Washington (NK) ~ Apr. 16
David Richert (R6) ~ Apr. 20
John H. Pemberton (CO) ~ Apr. 21
Ralph J. Brubaker (CO) ~ Apr. 22
Steven Counts (R6) ~ Apr. 25
Richard A. Gravley (R4) ~ Apr. 25
Dennis L. York (Ret) ~ Apr. 25
Kenneth W. Mohler (R5) ~ Apr. 27

Donald W. Garman (R6) ~ Apr. 29
Charles W. Becker (CO) ~ May 1
Gregory H. Winston (R4) ~ May 2
Percy W. Ayers (CO) ~ May 3
Donna S. Hoy (CO) ~ May 3
Jerre L. Creighton (CO) ~ May 4
Stephen M. Moyer (R3) ~ May 5
Stanley F. Warner (Ret) ~ May 8
Arthur G. Cox (Ret) ~ May 9
Paul F. Revell (CO) ~ May 10
Bernard A. Brooks (R4) ~ May 10
Christopher S. Asaro (CO) ~ May 12
James H. Guess (Ret) ~ May 14
Clara V. Rowe (R2) ~ May 15
L. Wayne Huskey (CO) ~ May 16
Sandra G. Booth (R5) ~ May 16
C. Russell Proctor (R6) ~ May 19
Derek O. Keiser (R5) ~ May 20
Gregory S. Meade (R3) ~ May 20
Dean P. Cumbia (CO) ~ May 20
C. William Bruffey (CO) ~ May 22

Dennis W. Anderson (R5) ~ May 24
Larry W. Layman (Ret) ~ May 24
Pauline Lucas (Ret) ~ May 25
S. Mindia Brown (CO) ~ May 27
Jessica A. Parker (CO) ~ May 28
Amy M. Ricolta (CO) ~ May 29
William L. Braford (Ret) ~ May 30
Richard H. Miles (Ret) ~ May 31
Rebecca L. Woodson (CO) ~ June 1
Donald M. Davis (R1) ~ June 5
Mary Gay Allizer (R6) ~ June 7
Richard L. Starnes (Ret) ~ June 7
Justin B. Hancock (R1) ~ June 9
Donald L. Parrott (Ret) ~ June 10
Joseph C. Street (CO) ~ June 11
Margaret Carpenter (CO) ~ June 12
H. F. Jones (R6) ~ June 12
David L. Stone (R3) ~ June 12
Frank N. Wood (Ret) ~ June 14
B. David Edwards (R6) ~ June 15
Gerald R. Crowell (R3) ~ June 16

Vanessa B. Blick (GG) ~ June 20
Carolyn G. Haggerty (AG) ~ June 22
Dennis R. Vaughan (R4) ~ June 24
Thomas J. Smith (R5) ~ June 25
James C. Clark (R5) ~ June 25
Thomas A. Edmonds (R1) ~ June 25
David B. Powell (R3) ~ June 25
Steven N. Shelley (R6) ~ June 26
Preston E. Trower (R1) ~ June 26
Brenda H. Taylor (CO) ~ June 26
Larry R. Willis (R1) ~ June 26
James R. Gering (Ret) ~ June 26
Samuel R. Barkley (R3) ~ June 27
Todd A. Edgerton (CO) ~ June 28
James N. Ebbert (R5) ~ June 28
Robert M. Thurman (R5) ~ June 30
David W. Slack (R2) ~ June 30



Mail Bag

February 13, 2006

Dear Mr. Kline, [Buck Kline, regional forester, Region 3]

Several years ago, you paid a visit to our farm to initiate a Stewardship program. We were new to the area and new to the concept of living on acres of land with a lot to learn. Following your visit, we met a subsequent forester, then we harvested a few acres of 40-year-old pines and were visited by Mike Santucci and Herb Reynolds.

From then on, we have been expertly guided through the steps of changing how we manage our land. Our own values have changed during this period and, for the last five years, we have turned our practices over to solely organic measures. Mike and Herb's knowledge of "nature" management fit right in step with the direction we were taking. We first stopped fertilizing our hay fields. Now we are increasing the depth of riparian buffers and, as of two years ago, we stopped haying altogether.

Mike and Herb orchestrated a prescribed burn for us, which took place last week. With their expertise and that of Mike Eckley and Jon Pine, we successfully burned three fields.

We look forward to discing and seeding and future burns next year. We gratefully acknowledge the work of all the foresters and, in particular, the professional commitment of Mike Santucci and Herb Reynolds.

Warm Regards,

Jill Meyer and Mark Meyer

Contacts AND INFORMATION

Submit articles to:
Janet Muncy, editor
janet.muncy@dof.virginia.gov

Submit articles by email. Simple text is best. Color photos, slides, negatives, or high-quality digital photos are all acceptable. Clearly label photos including to whom they should be returned.

The deadlines are as follows:

Summer Issue -- May 1, 2006

Fall Issue -- August 1, 2006

Winter Issue -- November 1, 2006

Spring Issue -- February 1, 2007

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please notify of address corrections