

DOUG BOYKIN Chairman, NM Tree Farm Committee

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TREE FARM BULLETIN

HER THING

September 2019

FOREST RESTORATION FIELD DAY

By Joe Stehling with editorial assistance from Drs. Burney, Reid, and Sloan

On a beautiful late summer day approximately 50 foresters, educators, researchers, and locals attended a Forest Restoration Field Day at the John T. Harrington Forestry Research Center in Mora, NM. The purpose of the field day was to:

- provide a synopsis on the declining state of New Mexico's forests.
- Share current research and management strategies addressing some of the issues.
- Emphasize the need for a strong forestry education program in New Mexico.
- Open the dialogue for continued education and support on future directions.

The Field Day was hosted by the Forest Restoration Triangle (FORT): New Mexico Forest and Watershed Restoration Institute, the Forestry Program at New Mexico Highlands University, and the JTH Forestry Research Center at NMSU-College of ACES.

The mission of the John T. Harrington Forestry Research Center at Mora is to conduct research and outreach throughout New Mexico and beyond in the areas of forest biology, native plant production, and reforestation biology.

The site is well worth a visit, field days notwithstanding. The site is well organized for educational as well as research purposes. The site has a self-guided tour that provides information on the various research projects. The staff is very knowledgeable and helpful.

The Field day began with a meet and greet where attendees could partake of a breakfast buffet of fresh fruits and pastries. The Field Day portion began with a hayride that took the visitors to three parts of the research center.

At the first stop on the hayride, Dr. Joshua Sloan, Assistant Professor of Forestry and Chair of the Department of Natural Resources Management at New Mexico Highlands University, discussed research on the white pine blister rust pathogen that affects southwestern white pine and other five needle pines. This gene conservation study is working to identify southwestern white pines growing in various parts of New Mexico that show resistance to blister rust, which is a lethal non-native fungus accidentally introduced into the U.S. early in the 1900's. Cuttings are taken from the resistant trees



identified on the landscape and are grafted to root stock in the nursery, after which the grafted seedlings are planted in field trials. The seedlings planted in the field trials will eventually be inoculated with blister rust to determine which ones can resist the pathogen, and the survivors will be used to establish a seed orchard of rust-resistant trees. Once these trees mature, seeds will be taken from them and used to produce rust-resistant seedlings in the nursery to be used for restoration plantings of southwestern white pine on the landscape. Through the creation of such seed orchards, this study hopes to preserve the genes responsible for blister rust resistance in southwestern white pine that might otherwise be lost forever due to fire or insect infestations if they weren't brought under cultivation.



At the second stop, Dr. Owen Burney, NMSU professor and director of the JTH Forestry Research Center, provided a description of a ponderosa pine plot that had been planted seven years ago. The plot consists of 75 seed sources of ponderosa pines ranging from southern New Mexico to British Columbia. The purpose of this research has two main objectives. The first objective is to establish seed transfer guidelines for ponderosa pine in the greater southwestern US. This provides land managers a tool to know where to collect seeds for planting projects and how far those seeds can be moved to minimize deleterious out planting effects. The second objective is a long-term study examining the



effects of climate change on ponderosa pine. Although climate change has always been with us through the eons, the rate of change in the climate in recent years has been significantly greater than in the past. The early results show that the sources taken from southern areas are doing better than local seed sources, suggesting that there may be options to plant southern sources a little further north. The center is also involved in similar research looking at seed sources of aspen from New Mexico, Utah, and Alberta.

The third stop on the tour found the attendees hiking past the lovely Morada, a chapel and meeting room used by the Penitente Brotherhood. They stopped at an area recently thinned and were met by Dr. Kent Reid, Director of the NM Forest and Watershed Restoration Institute (FWRI) at New Mexico Highlands University. Dr. Reid explained that the NM FWRI focuses on forests before a fire while the JTH Center focuses on restoration after a fire. The Institute, funded by both the US Forest Service and



the NM state legislature, provides technical assistance and practical knowledge in forest and woodland restoration and promotes practices to reduce the risk for catastrophic fires. It also promotes practices to restore healthy and sustainable forested ecosystems and restoration-based economies. Due to many factors, excessive fire suppression in the past being one of them, forests have departed from their historic condition. As evidenced by the catastrophic fires in California, the forests are in great danger for severe fire. Due to the lack of naturally occurring low level fire that cleaned out underbrush and small diameter trees, our forests have become severely overgrown. Instead of young seedlings dying from the frequent low-intensity fire, almost every seed that germinates grows into a tree. So instead of 40 or 50 trees per acre that we had historically, we have 900.

Because most people have gotten use to the appearance of a too-dense forest, Dr Reid's general recommendation to correct the density and reduce the fire risk is to remove as many trees as your heart can stand to cut. The FWRI promotes various forest restoration and management practices and

monitors them to determine which are cost effective and serve the best purposes for fire management. The area where the presentation took place had been recently thinned, with many of the larger diameter stems removed by the contractor and the slash treated using the lopand-scatter practice. The plan, as time and funding permits, is to stack the slash for pile burning in the winter. Comparing the 10 acres that had been thinned to an adjacent section not thinned demonstrated vividly how the potential for wildfire would be different.



All in all, it was a fun and informative day. The Research Center is a great host. The day ended with a sumptuous lunch of tamales, tortillas, beans and rice provided by Theresa.







1) COMMITTEE MEETING (CORRECTION, NEXT MEETING IS DECEMBER 11TH)

All Tree Farmers are invited and encouraged to attend our 3rd New Mexico Tree Farm Committee Meeting of the year (three held annually). Please join us at 1:30 pm on Wednesday, December 11th, 2019 at the New Mexico Department of Game and Fish office located at 7816 Alamo Road. NW, Albuquerque, NM 87120. Come out and hear what other tree farmers have been up to and share your tree farm accomplishments with the group. We look forward to visiting with you. If you have any questions, please contact Arnie Friedt at <u>arnie.friedt@state.nm.us</u>

2) BUY, SELL OR TRADE

Are you looking for forestry related equipment to buy (i.e. chipper, splitter, chainsaw, etc.)? Or, do you own forestry related equipment you would like to sell or trade? Forestry related equipment only, please, no homes or land. We would like to help you make the connection with other New Mexico Tree Farmers. Provide us with a description of the equipment, price, photo and contact information and we will post it in the New Mexico Tree Farm Bulletin. If you would like us to help you make the connection, please provide information to Arnie Friedt at <u>arnie.friedt@state.nm.us</u>

3) COMMUNITY CORNER

If your community is having a forestry related public event let us know the details and we would be delighted to promote your event in the New Mexico Tree Farm Bulletin. Give us the event details, Who, What, Where and When with contact information and we will include in our monthly bulletin. If you would like us to help you promote your event, please provide information to Arnie Friedt at arnie.friedt@state.nm.us

4) E-MAIL INSTEAD OF SNAIL MAIL

Would you prefer to receive your Tree Farm Bulletin by e-mail instead of snail mail? If so, contact Arnie Friedt at <u>arnie.friedt@state.nm.us</u> and provide him with your contact information. By receiving your Tree Farm Bulletin by e-mail our operating costs are reduced. Thank you for considering this option.

