

DOUG BOYKIN Chairman, NM Tree Farm Committee

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## TREE FARM BULLETIN

## THE NEED FOR SEED

by Collin Haffey, The Nature Conservancy, collin.haffey@TNC.ORG

New Mexico's tree seed bank is running low. A coordinated, statewide seed collection hasn't occurred for decades since the days when logging was a mainstay of northern New Mexican economies and drove reforestation and seed collection. Since then, our mountains have seen a significant loss of forest cover, due mainly to severe fire, drought, and beetle outbreaks. Recent research shows that after

intense, large fires, many coniferous forests will not regenerate naturally, and some strategic artificial reforestation will be needed to ensure that such forests live on for future generations. In recent years, groups of scientists, Tribes, land managers, and non-governmental organizations have started to organize tree-planting efforts across the state. These efforts have largely focused on developing new methods and modernizing reforestation strategies for a warmer 21st century. There's just one problem: Without seed, there will be no trees to plant.



August 2021

Landscape after wildland fire

An effort is underway to increase the amount of tree seed held in reserve to meet New Mexico's current and future reforestation needs. This effort is being led by New Mexico Highlands University (NMHU), New Mexico State University, the University of New Mexico, and the New Mexico Forestry Division, and the effort has received strong support from several Tribes, The Nature Conservancy, other environmental organizations, legislative partners like NM Senator Pat Woods, and corporate



Nursery seedlings

partners like DroneSeed. To address New Mexico's reforestation challenges, this group is creating the New Mexico Reforestation Center to support seed collection, nursery production, and tree planting. One early focus of the Center will be to recruit a network of seed collectors capable of taking advantage of mast years with heavy seed production to help fill the Center's seed bank. The Center will use modeling and scientific testing to identify seed sources best adapted to a warmer and drier future. "We basically need to collect seed from the best trees on the warmest and driest sites," says

Joshua Sloan, Director of Forestry at New Mexico Highlands University. Collecting seeds from trees adapted to warmer and drier conditions will give future forests the best chance of survival under a changing climate.

"We have a great opportunity to make a big push and collect as much seed as we can in the next couple of years," says NMHU's Sloan, "And we feel Tree Farmers can play a critical role in this effort." Tree Farms and Tree Farmers are well-positioned to assist in the seed collection efforts, given that Tree Farmers already pay close attention to trees and have a passion for forest conservation. Dr. Sloan outlines a few things Tree Farmers can do to help build our seed stores. The first is



Photo shows an average/mediocre ponderosa pine (Pinus ponderosa) cone with a mix of good and questionable seeds

to watch for cone production. For conifers, ponderosa pine and Douglas-fir are two of the main species we need seed from, and their seed-bearing cones take two years to develop. During the first year, cones are small and purple. The cones form at the terminal end of the branches and wait for



Photo shows a good ponderosa pine (Pinus ponderosa) cone with full seed cavities and healthy seeds

pollination. Once pollinated, the seeds start to develop, and the cones begin to grow. Usually around August of the second year, it is easy to identify large growing cones with viable seeds. The condition of a seed crop can be assessed visually by cutting open a sample of cones and looking for healthy seed development. Cones need to be harvested when they are ripe and just before they start to open. Once



removed from the tree, cones are bagged in burlap sacks and delivered to the seed bank for processing, where sun and warm air will dry the cones until they open and release their seed. The seeds must then be extracted, de-winged, cleaned, tested for viability, packaged, properly labeled, and then finally stored in a cooler. If kept cool in large freezers, many seeds can remain viable for many years to decades. If Tree Farmers see good cone crops developing and would like to donate or sell seed to support NM's reforestation efforts, they can contact Joshua Sloan at: jlsloan@nmhu.edu or their local NM Forestry Division's District Forester. Says Sloan, "We'll be recruiting and training crews to collect seed in 2022. Let's hope for good weather and a large healthy cone crop!"

### 1) NMTFC 2021 RAFFLE NEW MEXICO TREE FARM COMMITTEE 2021 RAFFLE WINNERS

*First Prize:* Cow Elk Hunt; Winner: Sawyer Vanetti (Rociada, NM) *Second Prize:* Large Metal Art by Carl & Lisa Bartley; Winner: David Watling (Belen, NM) *Third Prize:* Small Metal Art by Carl & Lisa Bartley; Winner: Guy Eaton (Espanola, NM) *Fourth Prize:* \$100 Cabela's Gift Card; Winner: Sophia Barnett (Glorietta, NM)

# CONGRATULATIONS to all of the winners and to all who supported this year's NMTFC 2021 Raffle, THANK YOU!

### 2) COMMITTEE MEETING

All Tree Farmers are invited and encouraged to take part in our 3<sup>rd</sup> New Mexico Tree Farm Committee Meeting of the year (three held annually). Please join us on Wednesday, December 8<sup>th</sup>, 2021. Join us 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 a <u>arnie.friedt@state.nm.us</u>

### **3) FARM EQUIPMENT FOR SALE**

The Carey/Franklin Tree Farm is selling a Bearcat Chipper/Shredder, originally bought for forest management, and only used one season. The plow, discs, and shank subsoiler were a farming aspiration and maybe have been used once or twice until we moved them undercover. All the equipment is in excellent condition (see attached photos).

Bear Cat 5" Chipper/Shredder	SC5540 450 PTO	\$2,200.00
Land Pride Disc Harrows	DH2572-70-82	\$2,000.00
Cimarron Bottom 14" Plow (2 blades)	MPH 214 0818092953	\$1,000.00
Bison Heavy Duty Shank Subsoiler (3 blades)	SVH-1	\$ 500.00

Interested parties can reach Donna Carey at <u>donna@acutonics.com</u> or by phone at 575-587-2689 or cell 575-770-0735. Equipment lives in Ilano, NM, Taos County





