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July 2020



## TREE FARM BULLETIN

### NATIVE PLANTS OF NEW MEXICO

*By: Joe Stehling, Hidden Lake Firewise Coordinator  
Secretary, NM Tree Farm Committee*

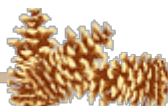
Facebook (love it or hate it) has a wonderful page titled Native Plants of New Mexico where participants post photos of their native plant finds. A feature of the site is regular postings of a Native Plant of the week with the hashtag #NMNPOTW. I have posted several writeups on wildflowers at Hidden Lake development in the Sangre de Cristo mountains, high on the Ocate Mesa at 10,100' elevation, 15 miles south of Angel Fire, off highway 120 on the way to Ocate. Two of my postings are below on Engelmann spruce and bristlecone pines. A third posting, below, on quaking aspen was written by Katyln Bird. I thought that in this down time when not much is going on as far as the Tree Farm Committee is concerned, you might like some detail on these trees.

#### ENGELMANN SPRUCE

Engelmann spruce, *Picea engelmannii*. Grows 60 – 120 feet tall with a diameter of about 3 feet. Compact and handsome. There is not common agreement on its commercial value as the wood is soft and weak. Young trees have a silvery tinge and can be mistaken for blue spruce. Needles are not in groups, which is a characteristic of blue spruce, Douglas fir, white fir, and subalpine fir. Needles are 4-sided, about  $\frac{3}{4}$ " long with sharp tip. When crushed, needles exude a skunk-like odor. It is found from 8,500' to timberline. Cones, 1-2 $\frac{1}{2}$ " long, always hang down and occur at the top of the tree (pendant cones).

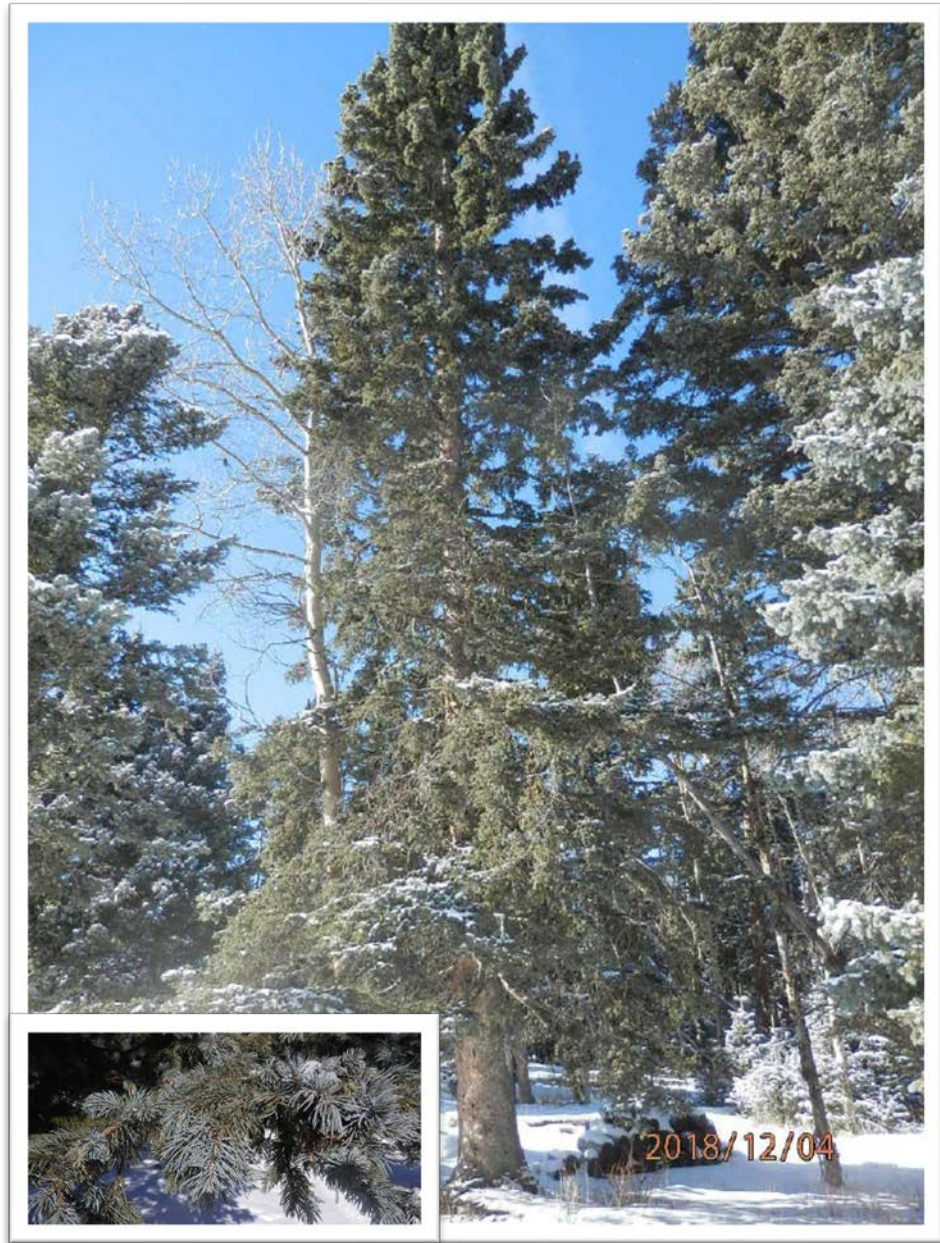
Spruce beer was sometimes made from its needles and twigs and taken to prevent scurvy. It was first allowed to ferment. It is one of the Navajos' favorite trees for ceremonial purposes, and is used for hoops, collars, bows. It was used in their sweathouses much as we use oil of eucalyptus in our saunas. (REF: Shrubs and Trees of the Southwest Uplands, Francis Elmore.)

The Engelmann spruce can grow to be 500 – 600 years old. I have a 100' tall Engelmann with a diameter at breast height of 29" that was cored and is about 80 years old (Photo 1). Roots are shallow and are subject to windthrow. I had my 20 acres thinned over the years. My forester cautioned me

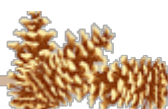


that I should not take too many trees at one time because of the shallow rooting and relatively weak wood. Since I had grant money that had to be spent, I ignored that advice and went from about 600 trees per acre, a basal area of about 195 square feet per acre, down to about 90 square feet per acre, removing several thousand stems (basal area is the square footage of a cross sectional area of the tree stems at breast height). I estimate I have lost over 350 stems to windthrow over the past 12 years – some beautiful spruces 70' tall. Some were uprooted, and others broken off from 2 to 7 feet up. My basal area is now about 80 square feet per acre with a tree density of about 90 trees per acre. It is less in some sections of my property where most of the windthrow has occurred. For good forest

health, the ideal basal area or stocking level for my forest type is 80 to 100 square feet per acre. I've planted over 300 seedlings in that time to fill in the open spots (including bristlecone pines that can grow to be thousands of years old). For Firewise defensible space, I should do more thinning where tree crowns are touching within 100 feet of the house. But I have so many stems on the ground now, that I do not want to cut more live trees, or even standing dead, until I get the downed trees cut up and stacked for firewood. Of course, some standing dead are intentionally left as snags for wildlife. Please excuse the pontification in this article, but I cannot help myself when talking about our forest and our wonderful environment.



*Photo 1: Engelmann Spruce*



## BRISTLECONE PINE

My favorite tree. I am enamored by its longevity and beauty - Rocky Mountain Bristlecone Pine (BCP), *Pinus aristata*, pine family. Also called foxtail pine. One of 5-needled pines, sharing with limber pine the highest windswept ridges. Grows 20' to 40' tall with 20' crown spread, (My trees are twice that height). Small cones with incurved prickles or bristles on the tips of the cone scales which gives the tree its name. Needles 1" to 2" long. BCP is easy to identify because of dots of white resin on the needles. Branch ends resemble a bottlebrush. The name "foxtail" is derived from the twigs densely

clothed with needles that resemble a fox's bushy tail. BCP have life span in **thousands** of years. Because it grows in high windy places, old trees are often twisted into very picturesque shapes and are often grows more like a shrub. (REF: Shrubs and Trees of the SW Uplands, et.al.). Methuselah, *Pinus longaeva* (Great Basin bristlecone pine), sprouted over 5,000 years ago at 9,600 feet on White Mountain of California (Photo 2) overlooking the Great Basin to the east. It is reported to be the oldest living thing on Earth.

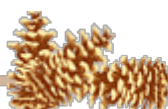


Photo 2: Methuselah

Another ancient tree, Prometheus, was the oldest known extant tree when felled in 1964, about five thousand years old. The Prometheus (Photo 3) shows the Wheeler Peak headwall in the distance, Great Basin National Park, NV. Not the NM Wheeler Peak. These trees, along with those growing in CA, NV, and UT, are considered a separate species, *Pinus longaeva*. I have several BCP on my property. One, which is at least 80' tall, I had cored but was only about 220 years old. I have planted at least 100 BCP seedlings in the past years. The mortality rate is very low.



Photo 3: Prometheus



## QUAKING ASPEN

It is commonly called quaking aspen, *Populus tremuloides*, trembling aspen, American aspen, and white poplar (Photo 4). It is a tall, fast growing deciduous tree. It usually reaches heights of 65-80 ft. with a trunk 8-30" in diameter at breast height. The bark is relatively smooth and greenish-white to gray in color. It typically has thick black horizontal scars and prominent black knots. The leaves of mature trees are almost round, 1½-3" in diameter and have small, rounded teeth, with a long-flattened petiole. Younger trees have much larger, nearly triangular leaves.

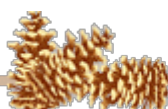
Aspens are perhaps best known for their beautiful golden fall colors. They range from gold to yellow, and occasional a reddish blush. Their fall display often brings people to the mountains with the expressed purpose of leaf viewing.

Aspens are dioecious, meaning they have separate male and female clones. The flowers, or catkins, are produced in early spring. Each capsule contains about ten tiny seeds embedded in a cottony fluff which the wind disperses in early summer. Aspen propagates mostly through root sprouting and extensive clonal colonies are common. Each colony is a clone of itself, and all the trees share a single root structure. *Populus tremuloides* can be found across Canada, Alaska, as far south as Northern Nebraska, Central Indiana, and throughout the western United States. In the west, it is mostly commonly found from 5,000-12,000 ft. It can grow at high altitudes as far south as Guanajuato, Mexico. It rarely survives below 1,500 ft. due to the heat.

Medicinally indigenous peoples and European settlers extracted a substance from the bark to be used as a quinine substitute for treating malaria. Early people once ate the catkins and some pueblos used them as an early-spring vegetable in meat stews. Aspen contains chemicals that have pain relieving qualities, and the leaves were used as such by native peoples. The trunk was, and still is, used to make pueblo drums. The straight-grained, light, and easy to carve wood makes it ideal for this purpose, along with the fact that the trunks rot from the inside out, making the hollowing process easier.



*Photo 4: Quaking Aspen*



### 1) NMTFC 2020 RAFFLE

#### NEW MEXICO TREE FARM COMMITTEE 2020 RAFFLE

**Tickets will be sold through Labor Day, September 7, 2020**

**The raffle will take place after Labor Day and the winners will be announced in the September Tree Farm Bulletin**

**First Prize: Un-guided Private Ranch Cow Elk Hunt Landowner Tag**

**Second Prize: Large Custom-made Metal Art Piece**

**Donated by Carl and Lisa Bartley**

**Third Prize: \$100 Cabela's Gift Card**

**Cow Elk Landowner tag donated by the Bartley Ranch**

**Unit 45, Hunt dates, any five days between 11/7 and 12/10/2020**

Winner will be responsible for NMDGF license and tag

## \$10.00 Each

To purchase your 2020 Raffle ticket(s) send a letter and check (payable to NMTFC) to:

Doug Boykin

1118 Hope Farms Road

Socorro, NM 87801

Doug will in turn send you your numbered 2020 Raffle ticket stub(s).

### 2) COMMITTEE MEETING (REVISED DATE / ZOOM VIDEOCONFERENCE)

All Tree Farmers are invited and encouraged to take part in our 2<sup>nd</sup> New Mexico Tree Farm Committee Meeting of the year (three held annually).

**Please join us, Friday, August 14<sup>th</sup>, 2020 on Zoom:**

**What: August 2020 NM Tree Farm Committee Meeting**

**When: Friday, August 14, 2020 from 1:30 – 2:30 (Mountain Time – Denver)**

**Where: <https://us04web.zoom.us/j/79926582949?pwd=VDBKZTA4ZCtNRDg2M2RzaUFwL2pNQOT09>**

**Meeting ID: 799 2658 2949**

**Passcode: D1epEG**

**Who: Organizer, Doug Boykin at [diboykin61@gmail.com](mailto:diboykin61@gmail.com)**

### 3) 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 [arnie.friedt@state.nm.us](mailto:arnie.friedt@state.nm.us)

