

# New Mexico Forestry Division 2024 Seedling List

SPECIES	HEIGHT	GROWTH RATE	COLD HARDINESS	WATER NEEDS	ALKALINITY TOLERANCE	ELEVATION	Size
<u>*SHRUB PACKAGE 2</u>	varies	Moderate-Fast	Good	Low	Moderate-High	3000- 7500	Small
<p><b>Atriplex canescens, Chrysothamnus nauseosus, etc.</b> This shrub package contains shrubs that are low water and drought tolerant. It contains 14 Winterfat, 14 Four-wing saltbush, 14 Chamisa (rubber rabbitbrush), and 7 littleleaf sumac. For more information on the individual species please refer to each species on the seedling list. <b>Pest Problems:</b> none serious <b>Suggested Uses:</b> erosion control, wildlife plantings, windbreaks.</p>							
<u>*SHRUB PACKAGE 3</u>	varied	Moderate-Fast	Good-Excellent	Low	Low	3000- 7500	Small
<p><b>Atriplex canescens, Krascheninnikovia lanata, etc.</b> Package includes 14 winterfat, 14 four-wing saltbrush, 14 Chamisa, and 7 Mormon tea (Green ephedra). For individual species characteristics see individual seedling descriptions. <b>Pest Problems:</b> none serious <b>Suggested Uses:</b> erosion control, wildlife plantings, reclamation</p>							
<u>AMERICAN SYCAMORE</u>	75-100 feet	Fast	Good-Excellent	High	Low	0- 6000	Small
<p><b>Platanus occidentalis</b> It is a wide-canopied, deciduous tree that is native to the U.S. and ranges from the east coast to as far west as Kansas, Oklahoma, and Texas. It has been planted successfully in eastern NM. It has dark-green, maple-shaped leaves and the bark on mature trees comes off in plates to leave a smooth, whitish inner bark. It is cold tolerant and has intermediate shade tolerance. Hardiness zones are 4 through 9. It has autumn foliage and attracts birds and is an excellent shade tree. It is adapted to coarse and medium textured soils and prefers a soil pH between 4.9 and 6.5. <b>Pest Problems:</b> None serious <b>Suggested Uses:</b> bird habitat, shade, mine reclamation</p>							
<u>APACHE PLUME</u>	4 - 6 feet	Fast	Good-Excellent	Low	Moderate-High	5000- 8000	Small
<p><b>Fallugia paradoxa</b> This native shrub occurs along the sides of dry washes and hillsides. The rose-like white flowers are showy in the early summer with feathery clusters of plume-like fruit in the fall and winter. Provides nesting sites and material for birds. It has high calcium carbonate tolerance and low salinity tolerance. The optimum soil pH is 7.0 to 8.0. It is shade intolerant. Hardiness zones are 3 through 10 below 8000 feet in elevation. The width is between 4 and 6 feet. <b>Pest Problems:</b> none serious. <b>Suggested Uses:</b> windbreaks, erosion control, and wildlife plantings.</p>							
<u>ARIZONA ASH</u>	25-50 feet	Moderate	Fair	Moderate	Moderate	3000- 7000	Small
<p><b>Fraxinus velutina</b> This native tree, also called Velvet Ash, is widely distributed through canyon bottoms in SW New Mexico. It is well adapted to the desert areas of NM and has moderate wildlife value for birds. Has no calcium carbonate tolerance and low salinity tolerance. It is shade intolerant. Hardiness zones are 7 through 10. The crown width averages 25 feet. It grows in soils that range from 5.8 to 7.5 pH. <b>Pest Problems:</b> no serious pests. <b>Suggested Uses:</b> riparian reclamation, windbreaks, erosion control, and wildlife plantings.</p>							
<u>ARIZONA CYPRESS</u>	40-60 feet	Fast	Fair	Low	Moderate-High	3000- 8000	Small
<p><b>Cupressus arizonica</b> This native evergreen tree has a conical crown. It survives well in shallow, alkaline soils. It is a low maintenance tree once established. Its shape when young has suggested to some to be used for Christmas trees. It is an excellent choice for windbreak plantings. Has high calcium carbonate tolerance and low salinity tolerance. The optimum soil pH is 6.1 to 7.9. It is shade tolerant. Hardiness zones are 6 through 9. Crown width averages 20 feet. <b>Pest Problems:</b> western cedar borer, cypress bark beetle, and spider mites. <b>Suggested Uses:</b> windbreaks, energy conservation plantings, and Christmas trees.</p>							
<u>ARIZONA SYCAMORE</u>	50 - 80 feet	Fast	Fair	Moderate	Moderate	4500- 6000	Small
<p><b>Platanus wrightii</b> This attractive native tree will grow best in southern New Mexico riparian areas and was once abundant in southwest New Mexico but appears to be less common today. The bark is shaggy and white/ green. The leaves are large and maple-like in shape. It is fast growing and has a pleasing fragrance after a rain. The crown width averages 35 feet. It has moderate calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 5.8 to 7.5. Hardiness zones are 7 through 11 below 6000 feet in elevation. <b>Pest Problems:</b> no major pests. <b>Suggested Uses:</b> soil stabilization, riparian restoration, and wildlife plantings.</p>							
<u>ASPEN</u>	60-80 feet	Fast	Excellent	Moderate-High	High	6500- 10000	Small
<p><b>Populus tremuloides</b> A native tree widely distributed above 7500 feet as a pioneer species after fire or other disturbances. Its bright fall colors light up the mountains where it is plentiful. Elk and deer browse the foliage when within reach. Fall colors are from bright yellow to gold and sometimes orange/red. It has high calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 4.3 to 9.0. It is shade intolerant. Hardiness zones are 2 through 8 above 6500 feet in elevation. The average crown width is 20 to 30 feet. <b>Pest Problems:</b> poplar borer, leaf miner, cytospora cankers, and tent caterpillar. <b>Suggested Uses:</b> wildlife plantings, reforestation, and reclamation above 6500 feet.</p>							
<u>AUSTRIAN PINE</u>	up to 60 feet	Moderate-Fast	Good	Moderate	Moderate	3500- 7500	Small
<p><b>Pinus nigra</b> This fast-growing pine is native to Europe but has proved to establish and grow well in the Southwest. It tolerates a variety of soils. It is an excellent choice for a windbreak planting. Many types of birds find cover in its branches, and some use the seed for food. It has high calcium carbonate tolerance and high salinity tolerance. Optimum soil pH is 5.5 to 7.5. It is shade intolerant. Hardiness zones are 4 through 8 below 7500 feet in elevation. The average width at maturity is 25 feet. <b>Pest Problems:</b> Ips bark beetle, twig beetles, and pine tip moth. <b>Suggested Uses:</b> wildlife plantings, windbreaks, and sound screens.</p>							
<u>BIG SAGEBRUSH</u>	2 to 15 feet	Moderate	Excellent	Low	Moderate	4500- 8500	Small
<p><b>Artemisia tridentata</b> This native evergreen shrub is an important food source for deer, elk, pronghorn antelope, and bighorn sheep. It is also important to many bird species especially sage grouse. The average width is 3 to 6 feet. It is an important species for reclamation and revegetation due to its broad range and ease of establishment. It has high calcium carbonate tolerance, moderate salinity tolerance, and it is shade intolerant. Hardiness zones are 3 through 9 below 8500 feet. <b>Pest Problems:</b> No serious pests. <b>Suggested Uses:</b> Wildlife habitat and revegetation.</p>							
<u>BLACK WILLOW</u>	up to 100 feet	Fast	Good-Excellent	High	Moderate	1500- 6000	Small
<p><b>Salix nigra</b> Black willow resembles Goodding's Black willow and the two species are sometimes considered to be varieties of the same species. It occurs along streambanks and in floodplain areas. It has massive trunks that usually lean and are often divided. The crown is broad and open. Birds eat the buds and flowering catkins, and deer eat the twigs and leaves. It is also commonly used as nesting habitat by small bird species. It has low calcium carbonate tolerance and medium salinity tolerance. The optimum soil pH is 4.8 to 8.0. It is shade intolerant. Hardiness zones are 4a through 9a below 6000 feet in elevation. <b>Pest Problems:</b> None serious. <b>Suggested Uses:</b> erosion control of streambanks, wildlife plantings</p>							
<u>BLUESTEM WILLOW</u>	up to 12 feet	Fast	Excellent	High	Low-Moderate	5200- 8500	Small
<p><b>Salix irrorata</b> This native shrub is widespread over New Mexico and occurs in thickets along rivers, creeks, and intermittent streams. It has twigs that are a striking purplish-blue color and white flowers. It has no salinity tolerance. Hardiness zones are 2 through 8 above 5200 feet. Optimum soil pH is</p>							

5.5 to 7.5. The width averages 15 feet. **Pest Problems:** None serious. **Suggested Uses:** Riparian restoration, streambank stabilization and wildlife plantings.

<u>BRISTLECONE PINE</u>	up to 40 feet	Slow	Excellent	Low	Moderate	7500- 11500	Small
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**Pinus aristata** This native pine grows in high elevation windy places and can live to be thousands of years old. Although it grows at high elevations it has been successfully planted at elevations as low as 6000 feet. Hardiness zones are 2 through 7b as long as elevation is at least 6000 feet. Its branches are covered with dense needles and resemble a foxtail. The pine seeds are a source of food for birds and small mammals. It has medium calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 5.7 to 7.5. It is shade intolerant. The average width is 15 feet. **Pest Problems:** white pine blister rust. **Suggested Uses:** Reforestation, reclamation and windbreaks.

<u>BUFFALOBERRY</u>	12 feet	Slow-Moderate	Good-Excellent	Low-Moderate	High	4500- 7000	Small
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**Shepherdia argentea** This native species is found along the banks of streams or on eroded dry hillsides in northwestern New Mexico. The plant is highly important for mule deer browse and cover for nesting birds. It is a good late winter source of food for birds. The tart red fruit of this plant is used for jellies and jams. Buffaloberry needs both male and female plants to produce fruit. It has high calcium carbonate and salinity tolerance. It has intermediate shade tolerance. Optimum soil pH is 5.3-8.0. Hardiness zones 3 through 6 below 7000 feet. The width is 10 to 12 feet. **Pest Problems:** none serious. **Suggested Uses:** wildlife plantings, jellies and jams, windbreaks, and erosion control.

<u>CHOCKECHERRY</u>	6-20 feet	Moderate-Fast	Excellent	Moderate-High	Low	5500- 9500	Small
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**Prunus virginiana** A native shrub or small tree that forms dense barriers. It prefers deep and sandy loam soils. It is an important species for wildlife as bear, deer, and other animals use it for food. It is a species that minimizes stream bank erosion. Its fruit is widely used in jellies and jams. Chokecherry is self-pollinating. It has medium calcium carbonate and salinity tolerance. The optimum soil pH is 5.2 to 8.4. It has intermediate shade tolerance. Hardiness zones are 2 through 7 at elevations between 5500 and 9500 feet. The crown width is between 10 and 20 feet. **Pest Problems:** borers, pear slugs, and tent caterpillar. **Suggested Uses:** windbreaks, riparian restoration, and wildlife plantings.

<u>CLIFFROSE</u>	3-10 feet	Moderate	Good-Excellent	Low	Low-Moderate	3000- 8000	Small
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**Purshia stansburiana** A native shrub found on cliffs, mesas, and in washes. Usually grows on hot, dry south and west aspects. It is drought resistant. Found on rocky, limestone soils. Is an important browse species for mule deer, elk, and various bird species. Flowers are cream to yellow in color, extremely fragrant, and blooms occur from April to June. It has high calcium carbonate tolerance, is drought tolerant, has low saline tolerance, and is shade intolerant. Preferred pH is 7.0 to 8.5. Hardiness zones 4 through 8 up to 8000 feet. It is adapted to medium to coarse soils. **Pest Problems:** **Suggested Uses:** erosion control, wildlife browse

<u>COYOTE WILLOW</u>	10 feet	Fast	Good	High	High	3500- 7500	Small
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**Salix exigua** This is one of the most common and widespread willows in New Mexico. It commonly forms thickets along streams, roadside ditches and is an important species to riparian areas. It is adapted to sandy soils in stream, river, and shoreline sites. It is heavily browsed by deer year-round. Cattle will browse it in the summer and early fall. It has low saline tolerance, intermediate shade intolerance and prefers a pH between 6 and 8.5. Hardiness zones are 4 through 9. **Pest Problems:** No major pests. **Suggested Uses:** Riparian restoration, erosion control in riparian sites and wildlife habitat

<u>DESERT MOUNTAIN MAHOGANY</u>	up to 15 feet	Moderate	Good	Low	Moderate-High	5000- 7500	Small
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**Cercocarpus breviflorus** It is a native evergreen shrub that grows in rocky soils on dry slopes and mesas. It has small narrow leaves that are covered with hairs hence its other common name - hairy mountain mahogany, and tiny yellow flowers. The fruit is brown, slender, and leathery with a whitish plume-like tail at the tip. It is found in the southern and western two-thirds of the state and ranges from eastern Arizona to the Trans-Pecos of Texas. It has intermediate shade tolerance and high heat tolerance. It can grow up to fifteen feet in height and five feet in width. **Pest Problems:** no serious pest problems. **Suggested Uses:** wildlife habitat and erosion control.

<u>DESERT WILLOW</u>	25 feet	Fast	Fair-Good	Low	High	3000- 6000	Small
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**Chilopsis linearis** A native shrub or small tree found in washes and along roadsides. This species is tolerant of poor soils and considerable drought. This deciduous plant is classified as a phreatophyte and is an indicator that water is not too far below the surface during part of the year. The wood is often used for fence posts. It has medium calcium carbonate tolerance and low salinity tolerance. The optimum soil pH is 6.6 to 10.0. Hardiness zones are 7 through 11 at elevations below 6000 feet. It has intermediate shade tolerance. The crown width averages 20 feet. **Pest Problems:** no major pests. **Suggested Uses:** windbreaks, erosion control, screens, and wildlife plantings.

<u>DOUGLAS-FIR</u>	80+ feet	Moderate	Excellent	High	Moderate	4500- 10000	Small
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**Pseudotsuga menziesii** A large, native tree with a dense, conical crown. The wood is one of the strongest of the soft woods. It has significant value to the wood products industry and is used extensively as a Christmas tree. This species can live for hundreds of years. It has moderate calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 5.0 to 7.5. It has intermediate shade tolerance. Hardiness zones are 4 through 6 above 4500 feet in elevation. The width is between 20 and 30 feet. **Pest Problems:** Douglas-fir tussock moth, spruce budworm, and woolly aphids. **Suggested Uses:** reforestation (important timber species in western US), wildlife plantings, and Christmas trees.

<u>FERNBUSH</u>	6-8 feet	Moderate	Good	Low	Moderate	3000- 7000	Small
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**Chamaebatiaria millefolium** This shrub has fragrant fern-like leaves. It produces an array of white flowers in the spring. The plant remains an evergreen in warm climates and becomes deciduous in colder climates. It is also very drought tolerant once established. It has high calcium carbonate tolerance and no salinity tolerance. Optimum soil pH is 7.0 to 8.0. It is shade intolerant. Hardiness zones are 4 through 9 at lower than 7000 feet in elevation. The width is 5 feet. **Pest Problems:** no major pests. **Suggested Uses:** windbreaks, wildlife plantings, and erosion control.

<u>FIRECRACKER PENSTEMON</u>	up to 3 feet	Slow	Excellent	Low	Moderate	3000- 11000	Small
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**Penstemon eatonii** Native plant that has bright red flowers that bloom May through August, is adaptable to various soil types. It provides forage for deer, antelope and birds. It has intermediate shade tolerance, has high calcium carbonate tolerance, and no salinity tolerance. Hardiness zones are 4 through 9. It is a pollinator for native bees. **Pest Problems:** none serious **Suggested Uses:** erosion control, reclamation, wildlife forage

<u>FOUR-WING SALTBUSH</u>	4-6 feet	Fast	Good	Low	High	3000- 8000	Small
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**Atriplex canescens** This native shrub grows across a wide variety of soils including saline soils and is highly prized plant by the Navajos as forage for their cattle, sheep, and goats; especially in early spring when other forage is scarce. It is also an excellent wildlife species. It has high calcium carbonate tolerance and high salinity tolerance. Optimum soil pH is 6.5 to 9.5. It is shade intolerant. Hardiness zones are 4 through 9 up to 8000 feet in elevation. The width is between 4 and 8 feet. **Pest Problems:** no major pests. **Suggested Uses:** windbreaks, wildlife plantings, erosion control, and reclamation of severely disturbed sites.

<u>FRINGED SAGE</u>	2 feet	Fast	Excellent	Low	Moderate	5500- 8000	Small
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**Artemisia frigida** Is native to most counties in New Mexico. It is drought tolerant and browsed by elk, deer, bighorn sheep, and pronghorn. It is also important to small game and nongame animals. It is also as a food plant for butterfly and moth species. It has medium saline tolerance, intermediate

shade tolerance, and prefers a pH of 7.0 to 9.0. Hardiness zones are 3 through 10 at elevations between 5500 and 8000 feet. **Pest Problems:** none known **Suggested Uses:** soil stabilization and wildlife habitat

<u>HOPTREE</u>	up to 25 feet	Slow-Moderate	Excellent	Low-Moderate	Moderate	4000- 9000	Small
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**Ptelea trifoliata** This native tree also known as wafer ash reaches up to 25 feet with a crown spread of 10 to 15 feet. The leaves are trifoliolate and are four to six inches in length and turn yellow in the fall. Their flowers are inconspicuous greenish-white and have an orange blossom-like perfume. Its fruit attracts bird, squirrels and other mammals. Grows on dry, rocky slopes to valley bottoms. It has medium salinity tolerance, medium calcium carbonate tolerance, and intermediate shade tolerance. The optimum soil pH is 4.8 to 7.0. Hardiness zone is 4 through 9. **Pest Problems:** none serious **Suggested Uses:** wildlife habitat, windbreaks

<u>LACEBARK ELM</u>	50 feet	Fast	Good-Excellent	Low-Moderate	Moderate	4500- 8000	Small
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**Ulmus parvifolia** Lacebark Elm, or true Chinese Elm, should not be confused for the notoriously spreading Siberian Elm. Siberian Elm is often and mistakenly called Chinese Elm. Lacebark Elm is a medium sized tree with a round to oval crown. It is a gentleman as it doesn't spread like the Siberian Elm. It is an excellent drought tolerant species for use in windbreaks. It can grow as much as 3 feet per year. It is adaptable to most soil conditions. It has low calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 4.8 to 7.0. Hardiness zones are 5 through 9 at elevations between 4500 and 8000 feet. It is shade intolerant. The crown width is between 30 and 40 feet. **Pest Problems:** none serious. Resistant to elm leaf beetle and Dutch elm disease. **Suggested Uses:** windbreaks and firewood.

<u>LIMBER PINE</u>	up to 60 feet	Slow	Excellent	Low	Low	7500- 12000	Small
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**Pinus flexilis** This native 5-needled pine is very long-lived. It is pyramidal in shape during youth, becoming more flat-topped at maturity. The crown width is between 15 and 30 feet. The pine seeds are an excellent source of food for birds and small mammals. It has medium calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 5.7 to 6.5. It has intermediate shade tolerance. Hardiness zones are 4 through 7. **Pest Problems:** bark beetle, twig beetle, dwarf mistletoe and White Pine blister rust. **Suggested Uses:** windbreaks, Christmas trees, and reforestation.

<u>LITTLE LEAF SUMAC</u>	8-10 feet	Moderate	Good	Low	Moderate-High	4000- 8000	Small
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**Rhus microphyllum** A native shrub of the desert washes and valleys of New Mexico that has clusters of orange-red berries that provide winter food for many birds and mammals. It is found as far north as Sabinoso in San Miguel County. The leaves turn a beautiful orange red in the fall. Basket weaving was a common use of sumac branches by Native Americans. It has high calcium carbonate tolerance and low salinity tolerance. The optimum soil pH is 7.0 to 8.5. It is shade intolerant. The width is between 6 and 10 feet. Hardiness zones are 7 through 10 at elevations lower than 8000 feet. **Pest Problems:** no major pests. **Suggested Uses:** erosion control, windbreaks, and slope stabilization.

<u>MORMON TEA (GREEN EPHEDRA)</u>	up to 5 feet	Moderate	Excellent	Low	Moderate	3000- 7500	Small
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**Ephedra viridis** This native evergreen shrub is important browse for big game. Its seeds and stem parts are used as food by many small animals and birds. It is used to restore disturbed land due to its ability to reduce erosion on both clay and sandy soils. Plants are drought tolerant and cold hardy. It has high calcium carbonate tolerance, high salinity tolerance and has intermediate shade tolerance. Hardiness zones are 6 through 9. at elevations below 7500 feet. The width is between 2 and 4 feet. **Pest Problems:** None serious. **Suggested Uses:** Wildlife habitat and erosion control.

<u>MOUNTAIN MAHOGANY</u>	15 feet	Moderate	Good-Excellent	Moderate	Moderate	4500- 8000	Small
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**Cercocarpus montanus** Mountain Mahogany is beautiful in late summer and fall, when the white tails of the fruit look like a threaded needle or a narrow delicate feather. It is a native shrub found on the limestone soils of the rolling plains and northern Trans-Pecos on rocky uplands. The leaves and twigs are browsed by elk and deer. It is an excellent species for reclamation of disturbed areas. It has high calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 6.0 to 8.0. It has intermediate shade tolerance. Hardiness zones are 5 through 10 between 4500 and 8000 feet. The width is between 8 and 15 feet. **Pest Problems:** no serious pest problems. **Suggested Uses:** wildlife habitat, and erosion control.

<u>NARROWLEAF COTTONWOOD</u>	up to 70 feet	Fast	Good-Excellent	Moderate-High	Moderate	5000- 10000	Small
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**Populus angustifolia** This is a native tree with willow-like leaves, common along streams in the mountains of New Mexico. It represents the principal mountain Cottonwood species. It provides cover for wildlife and is a good browse species. It has high tolerance for calcium carbonate and low tolerance for salinity. The optimum soil pH is 6.0 to 7.5. It is shade intolerant. Hardiness zones are 3 to 8 above 5000 feet. The crown width is between 30 and 40 feet. **Pest Problems:** Leaf rust, fall webworm, poplar borers **Suggested Uses:** Windbreaks, Wildlife plantings, erosion control and riparian restoration

<u>PALMER'S PENSTEMON</u>	up to 5 feet	Moderate	Excellent	Low	Low	2600- 8200	Small
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**Pestemon palmeri** Native to New Mexico. It is a perennial herb to slightly wood subshrub. Has fleshy leaves and has white to pink flowers that are fragrant. It is found in dry washes, grasslands, pinon-juniper and ponderosa pine communities. It is very drought and heat tolerant. It is shade intolerant, pH tolerance is 6.0 to 7.9, saline intolerant and prefers precipitation between 6 and 14 inches per year. Hardiness zones are 4 through 9 at elevations below 8200 feet. Adapted to coarse and medium textured, well-drained soils. **Pest Problems:** **Suggested Uses:** wildlife plantings and erosion control

<u>PEACHLEAF WILLOW</u>	30 feet +	Fast	Good-Excellent	High	Moderate	4500- 7400	Small
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**Salix amygdaloides** This native tree is found along rivers and streams in rich alluvial soils. It is readily identified by its gleaming leaves and pendulous branchlets, which gives it a weeping appearance. It is an excellent species for streambank stabilization. It has medium calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 6.0 to 8.0. It is shade intolerant. Hardiness zones are 2 through 8 at elevations between 4500 and 7400 feet. The width is up to 40 feet. **Pest Problems:** None serious **Suggested Uses:** Riparian restoration, streambank stabilization and wildlife plantings.

<u>PECAN</u>	70 to 100 feet	Moderate	Good	High	Moderate-High	0- 5000	Small
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**Carya illinoensis** Ungrafted, oval crowned deciduous tree, has a spread of 40 to 75 feet. Fruit is an oblong nut. The nuts be used by deer, wild turkeys, various bird species, and various small mammals. It is also used by butterflies. It grows in moist, well-drained soils such as sandy, sandy loam, medium loam, clay loam, clay and caliche. These seedlings are not cultivars, so nut quality varies. If you are a commercial grower you will need to find cultivars. Is shade intolerant, has low calcium carbonate tolerance, and has a preferred pH range of 4.5 to 7.5. Is salt intolerant. Grow well in the southern half of New Mexico if soil is kept moist. USDA hardiness zones are 6 to 9, but probably won't produce nuts in the colder zones since it requires consistent warm night temperatures to produce nuts. **Pest Problems:** none major - aphids, borers, tent caterpillars, webworms **Suggested Uses:** wildlife habitat, furniture wood

<u>PIÑON</u>	up to 40 feet	Slow	Good-Excellent	Low	Moderate-High	3500- 8500	Small
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**Pinus edulis** The New Mexico state tree is an aromatic pine which grows across a wide variety of soils and does well under cultivation. It is popular for the edible nuts it produces. Under most conditions it is self-pollinating. It has high value for upland game and songbirds. It is very drought tolerant, but slow growing. Has low calcium carbonate tolerance and medium salinity tolerance. Hardiness zones are 6 through 8. Optimum soil pH is 6.5 to 8.5. The

crown width is between 20 and 30 feet. **Pest Problems:** Ips bark beetle, piñon needle scale, needle miner, twig beetle, and pitch moth. **Suggested Uses:** windbreaks, reforestation, and Christmas trees.

<u>PLAINS COTTONWOOD</u>	up to 85 feet	Fast	Excellent	High	Low-Moderate	3500- 9000	Small
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**Populus deltoides ssp. monilifera** This cottonwood is native to the eastern plains of New Mexico and is found in moist areas and near stream banks. It is also highly drought tolerant. It is appropriate for planting east of the Pecos River. Rio Grande Cottonwood should be planted west of the Pecos River. The crown spread is 50-60 feet, and the leaves are wide and triangular in shape, 3-6 inches long. They turn golden yellow in the fall. It has medium tolerance for calcium carbonate and no salinity tolerance. Hardiness zones are 3 through 9 at elevations below 9000 feet. The optimum soil pH is 5.0 to 7.0. It is shade intolerant. The crown width is between 30 and 40 feet. **Pest Problems:** None serious. **Suggested Uses:** riparian restoration, stream bank stabilization, and wildlife plantings.

<u>PONDEROSA PINE</u>	up to 80 feet	Moderate	Excellent	Moderate	Moderate-High	4500- 9000	Small
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**Pinus ponderosa** This is a large, native conifer. It is the primary commercial tree species in New Mexico. It has a pyramidal shape when young and becomes conical with age. Squirrels clip the cones and store them in caches and extract the seeds for winter consumption. The tree grows best on well-drained soils. It has low calcium carbonate tolerance and no salinity tolerance. The optimum soil pH is 5.0 to 9.0. It is shade intolerant. Hardiness zones are 3 through 9 at elevations above 4500 feet. The crown width is between 25 and 30 feet. **Pest Problems:** bark beetle, twig beetle, sawflies and dwarf mistletoe. **Suggested Uses:** windbreaks and reforestation.

<u>ROCKY MOUNTAIN PENSTEMON</u>	up to 3 feet	Moderate	Excellent	Low	Low	6000- 11000	Small
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**Penstemon strictus** Is a native perennial herb with deep blue to purple flowers. It is used for erosion control and forage for deer, antelope and birds. It is shade intolerant, prefers well-drained soils, and blooms May through July. The preferred pH is 6.0-8.0. It has low calcium carbonate tolerance, no salinity tolerance, and has moderate drought tolerance. Hardiness zones are 4 through 9 at elevations 6000 feet and above. **Pest Problems:** None noted. **Suggested Uses:** erosion control, wildlife forage

<u>RUBBER RABBITBRUSH (CHAM)</u>	4-6 feet	Fast	Good-Excellent	Low	Low	3000- 7500	Small
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**Chrysothamnus nauseosus** This is a native shrub which grows well on disturbed sites and in alkaline soils. In the fall Chamisa becomes very conspicuous. Its yellow flower clusters brighten up the roadside and other disturbed areas. The foliage and seeds are eaten by browsing animals and rabbits. It has medium calcium carbonate and salinity tolerance. The optimum soil pH is 5.6 to 8.6. It is shade intolerant. Hardiness zones are 3 through 10 at elevations lower than 7500 feet. The width is between 2 and 4 feet. **Pest Problems:** Leaf beetle, no other major pests. **Suggested Uses:** windbreaks, erosion control and reclamation.

<u>SKUNKBUSH SUMAC</u>	4-6 feet	Moderate	Excellent	Low	Moderate-High	4500- 8000	Small
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**Rhus trilobata** Skunkbush sumac is a deciduous, multi-branched and spreading shrub. It occurs along stream banks and forest openings but is most common and abundant on dry, rocky slopes throughout Arizona and New Mexico at elevations from 3500 to 8000 feet. This shrub is very winter hardy and tolerant of drought and high alkali soils. The fruits are red-orange, and the flowers are yellowish and conspicuously in clusters. Besides having brilliant orange-red fall colors it is an important fall and winter food for songbirds and emergency food for game birds. This species is also an important browse species for mule deer. Clusters of small yellow flowers bloom in late May and produce a small red edible fruit. It has low calcium carbonate tolerance and no salinity tolerance. Optimum soil pH is 6.5 to 8.2. It has intermediate shade tolerance. Hardiness zones are 4 through 8 at elevations between 4500 and 8000 feet. The width is between 6 and 8 feet. **Pest Problems:** no serious pests. **Suggested Uses:** windbreaks, wildlife plantings, and erosion control.

<u>SOUTHERN LIVE OAK</u>	50 ft	Moderate	Fair	Moderate	Moderate	0- 0	Small
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**Quercus virginiana** Southern live oak is native to the southeastern United States from Virginia through Texas. It has been planted for decades in the warmer areas of the southwestern US. The average height and crown width at maturity is at 50 feet. It has intermediate shade tolerance and a pH range of 4.3 to 7.5. Southern live oak can grow in hardiness zones 7-10 and is cold hardy to 5-10 degrees Fahrenheit. It is relatively drought tolerant, but it does require watering. Although it appears to be evergreen, it is deciduous, it drops its old leaves just as new ones emerge. It grows in dry to moist soils, whether gravelly, sandy, loamy or clay, but does best in neutral or slightly acidic clay loams, poor drainage okay. It is saline tolerant and tolerant of compaction. **Pest Problems:** oak wilt **Suggested Uses:** wildlife food -acorns, attracts butterflies and birds

<u>SUPERB PENSTEMON</u>	2 feet	Moderate	Good-Excellent	Low	Moderate	3500- 5500	Small
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**Penstemon superbus** Native to extreme southwestern New Mexico and southern Arizona. Grows in sandy or gravelly soils in canyons and washes. Has coral-colored blooms in April and May. Is a pollinator for native bees. Hardy in USDA hardiness zones 6-9. **Pest Problems:** none known **Suggested Uses:** pollinator for native bees

<u>TEXAS RED OAK</u>	up to 50 feet	Moderate	Good	Low	Moderate	0- 7000	Small
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**Quercus buckleyi** It is a small to medium tree with spreading branches. It can grow up to 50 feet in height and has a spread of between 30 to 50 feet. Is native to Kansas, Oklahoma, and Texas. The leaves are shiny green and turn red and orange in the fall. Wildlife use the acorns for food. It is shade intolerant, drought tolerant, grows in clay, loam or sandy soils. It has high heat tolerance and is tolerant of alkaline soils such as limestone. USDA Hardiness Zones 6-11. **Pest Problems:** None major **Suggested Uses:** wildlife habitat

<u>TORREY'S WOLFBERRY</u>	up to 10 feet	Moderate	Good-Excellent	Low	Moderate-High	3500- 5500	Small
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**Lycium torreyi** Native shrub that is found in the major river drainages at lower elevations. It has dark reddish-brown stems with thorns and flowers are light purple. It has bright red berries. It can grow in sandy soils, is tolerant of saline soils and has high calcium carbonate tolerance. Cold hardy to hardiness zone 7. It is a source of food for small birds and mammals. **Pest Problems:** none serious **Suggested Uses:** wildlife habitat and browse, erosion control

<u>TURPENTINE BUSH</u>	1-3 feet	Moderate-Fast	Good-Excellent	Low	Moderate	3000- 6500	Small
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**Ericameria laricifolia** Is a native New Mexico shrub that is 1-3 feet tall and wide with small golden-yellow flowers and dense narrow leaves. It prefers full sun to part shade, is cold and heat tolerant and grows in dry, well-drained granitic, sand, clay loam or limestone soils. Hardiness zones are 7 through 10 at lower than 6500 feet elevation. It flowers in late summer and fall. **Pest Problems:** None serious **Suggested Uses:** wildlife browse, attracts butterflies and birds

<u>WINTERFAT</u>	3-4 feet	Fast	Good-Excellent	Low	Moderate-High	3000- 8000	Small
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**Ceratoides lanata** Winterfat is a hardy, native half-shrub with a wide range throughout New Mexico. It grows on dry, well-drained soils, 3000 - 8000 feet in elevation, and can tolerate saline or alkaline soils. It is superior winter forage for livestock and used extensively by wildlife. The seed heads in the fall give the plant a pleasing silvery appearance. The long white fuzzy plumes give it another name: "Lambs Tail". It has high calcium carbonate and salinity tolerance. The optimum soil pH is 6.6 to 8.5. It is shade intolerant. Hardiness zones are 3 through 8 at elevations lower than 8000 feet. The average width is 3 feet. **Pest Problems:** no major pests. **Suggested Uses:** erosion control, range improvement, and wildlife plantings.