

FY 2009 Progress Report for the Apache-Sitgreaves National Forests Production of Riparian Plant Materials

David R. Dreesen
Los Lunas Plant Materials Center
US Department of Agriculture–Natural Resources Conservation Service

The Los Lunas Plant Materials Center (LLPMC) was asked to produce riparian plant materials as containerized stock or dormant pole cuttings for the Apache-Sitgreaves National Forests for use in riparian restoration and revegetation activities. This stock was propagated from plant propagules (cuttings or seed) collected within the Forest.

Narrowleaf Cottonwood Dormant Pole Cuttings

Over the past two decades, the LLPMC has installed several narrowleaf production fields. The later pole production fields were installed with cuttings from the original planting installed in the early 1990's. Some of the older fields were removed in the late 1990's and again in 2008 because they were no longer producing numerous, vigorous poles. As of June 1, 2009, there were two fields (32N and 31S) containing eight rows (about 0.5 acre) and approximately 1,000 plants (Figure 1). Two-hundred poles will be of sufficient size to harvest in early 2010.



Figure 1: Narrowleaf cottonwood pole production in Field 31S at the LLPMC (photo taken June 12, 2009)

Arizona Willow Containerized Stock

Approximately 25 Arizona willow stock plants grown from seed have been maintained and have provided micro-cuttings for propagation activities in FY2009. Approximately 200 cutting-propagated tubelings were growing as of June 1, 2009 (Figure 2).



Figure 2: Arizona willow tubelings propagated from micro-cuttings harvested in March 2009 (photo taken June 12, 2009)

Other Willow Species

In 2006, seed of a number of willow species was collected by Carl-Eric Granfelt and was propagated at the LLPMC. The following list describes the species and collection locations:

- Geyer's (*Salix geyeriana*) near McNary, Arizona – 7,300 feet, Porter Spring – 8,500 feet , and West Fork Little Colorado – 9,160 feet
- Pacific (*Salix lucida ssp. lasiandra*) Walnut Creek, Arizona
- strapleaf (*Salix ligulifolia*) Walnut Creek, Arizona
- arroyo (*Salix lasiolepis*) near Flagstaff, Arizona
- bluestem (*Salix irrorata*) Walnut Creek, Arizona
- mountain (*Salix monticola*) West Fork Little Colorado – 9,160 feet

As of June 2009, the number of Apache-Sitgreaves willows in one-gallon treepots at the LLPMC totaled over 1,300 (Figure 3). Approximately 300 willows were propagated from cuttings in March 2009 (Figure 4) and are listed in Table 1.



Figure 3: Mountain willow (background) and Geyer's willow (foreground) in one-gallon tree pots (photo taken June 12, 2009)



Figure 4: Apache-Sitgreaves willow tubelings propagated from cuttings harvested in March 2009 (photo taken June 12, 2009)

Table 1: Apache-Sitgreaves National Forests willows at the Los Lunas Plant Materials Center as of June 2009

Common Name	Species	Origin and Elevation	No. of One-Gallon Treepots	No. of Tubelings Propagated in FY 2009
Geyer's	<i>Salix geyeriana</i>	McNary – 7,300 feet	150	
Geyer's	<i>Salix geyeriana</i>	Porter Spring – 8,500 feet	360	25
Geyer's	<i>Salix geyeriana</i>	West Fork Little Colorado – 9,160 feet	90	
Pacific	<i>Salix lucida ssp. lasiandra</i>	Walnut Creek	210	60
strapleaf	<i>Salix ligulifolia</i>	Walnut Creek		60
arroyo	<i>Salix lasiolepis</i>	Flagstaff	440	70
bluestem (or dewystem)	<i>Salix irrorata</i>	Walnut Creek	220	
mountain (or park willow)	<i>Salix monticola</i>	West Fork Little Colorado – 9,160 feet	220	85
Bebb's	<i>Salix bebbiana</i>	Los Burros and Lookout Pasture	480	
Total			1360	300