

CONSERVATION Showcase

Meeting the Challenge with Native Legumes

So, how do you take a tiny bit of foxtail prairie clover seed and produce enough for the U.S. Forest Service to sow vast acreages? The Los Lunas Plant Materials Center (PMC) can tell you, for they met the challenge.

In 2005 the Gila National Forest approached the PMC requesting that they jointly develop a proposal for funding to identify ways to produce large quantities of native legumes, inexpensively. The Forest Service wanted to use the legumes after fires because they fix nitrogen in the soil and in doing so create ecosystems that help support the growth of native grasses. Also, legumes have high feed value for wildlife. This would enable the Forest Service to better support the mule deer population that has not thrived well in the Gila. And, the Forest Service needed to be able to produce legume seed inexpensively because they frequently must apply their conservation measures to large acreages.

Thus funding was obtained, and the Forest Service collected small quantities of two kinds of native legume seed – foxtail prairie clover and white flower prairie clover.

While the white flower prairie clover failed to thrive in the PMC's environment, the foxtail prairie clover performed well.

The PMC started the foxtail prairie clover from a tiny amount of seed in their greenhouse and then moved what was produced to two rows outdoors. By the end of the season, they foxtail prairie clover produced 30 pounds of seed, at which point the PMC planted a quarter-acre. The quarter-acre produced 250 pounds of seed, so a full acre could be expected to produce 1000 pounds of seed.



In the process the PMC observed some of the characteristics of this species. For example, it grows slowly – then bolts at the end of the summer, starts flowering in September, and produces seed in late October/early November. After the PMC harvested its test plot, it left the plot undisturbed to determine if the seed that fell in the combining process would grow the next year – which it bountifully did.

Seed was given to the Forest Service for the Forest Service to determine how this seed would perform in the field – for the PMC has determined it can produce large quantities, economically.

PMC agronomist, Dave Dreesen, says there are many other native legumes that could be tried but the challenge is to find those that do well and set seed in our semi-arid climate.

That is something we really need to investigate more according to Dreesen.