

## PINYON PINES AS A NUT CROP & LOW-WATER LANDSCAPE PLANT

Roughly 80% of the fresh water in Utah is used for agricultural purposes. This project has the potential to conserve and enhance availability of water by encouraging the development of a crop for marginal lands that could be grown with minimal water resources. In other words, it has the potential to **increase agricultural production in the state without increasing demand on the water supply**. In addition, such trees could be used for low-water landscaping which would reduce the amount of water used in traditional landscapes and insure that our urban water supply can be stretched even further.

The purpose of this research is to select clones of pinyon pine that produce large quantities of nuts, to graft such clones to seedling trees in a nursery environment, and to determine the potential for grafting superior scions to mature wild trees for quicker production.

### ACCOMPLISHMENTS TO DATE:

- We have worked with Laporte Avenue Nursery in Fort Collins, Colorado to learn grafting techniques for pinyon pine. As a result, we have successfully grafted *Pinus monophylla* to *Pinus edulis* rootstocks and vice versa.
- Superior selections of *Pinus monophylla* in Box Elder, Juab, and Iron Counties have been located.
- Development of a field orchard for pinyons has begun through the identification of rootstocks at the University of Idaho for delivery in late 2017.
- Land has been identified for a pinyon orchard in Richmond, Utah and in Juab County, Utah.
- Mature *Pinus edulis* trees for rootstocks have been identified at the USU Botanical Center in Kaysville, Utah and will be grafted in the spring of 2017.
- Additional funding for this project has been obtained from the Utah Department of Agriculture and food.