



Regionally-adapted ecotypes to increase native seed availability for the desert southwest

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Restoration efforts in the desert southwest face a challenge when it comes to the availability of native seed. Few commercial growers exist in this region. The seed market is unpredictable. Many plantings are conducted using “common” seed, without consideration of genetic origin or locality, often resulting in low germination rate or persistence. The use of locally adapted ecotypes is desirable for greater planting success, however this seed is typically hand-harvested by contracted seed collectors at a high price. The Tucson Plant Materials Center (PMC) encourages the use of regionally adapted ecotypes to decrease price of seed and increase the success of plantings. Seed grown agronomically decreases the price per pound. Increasing genetic origin of the population to a larger geographic area increases the marketability of the seed. Seed populations with high genetic diversity have a greater ability to survive droughts, and adapt to changes in the climate. The Tucson PMC is currently developing several regionally-adapted species releases in crossing blocks, incorporating collections from as many different ecological zones as possible across the intended region of use.