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From Forest Nursery Notes, Winter 2011

**29. © Market perceptions and opportunities for native plant production on the southern Colorado Plateau.** Peppin, D. L., Fule, P. Z., Lynn, J. C., Mottek-Lucas, A. L., and Sieg, C. H. *Restoration Ecology* 18(S1):113-124. 2010.

RESEARCH ARTICLE

# Market Perceptions and Opportunities for Native Plant Production on the Southern Colorado Plateau

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## Abstract

Increases in revegetation activities have created a large demand for locally adapted native plant materials (NPM) in the southwestern United States. Currently, there is a minimal supply of local genotypes to meet this demand. We investigated the potential for the initiation of a native plant market in the southern Colorado Plateau. Through a literature search, interviews, and site visits, we identified existing native plant markets outside of the region as useful models to help initiate a regional market. We used web-based surveys to identify and analyze current and future NPM needs and concerns. Survey results indicate that management policy strongly drives decisions regarding the use and purchase of NPM. From a demand perspective,

lack of availability and cost of NPM has kept purchasing minimal, despite policy changes favoring the use of natives. For suppliers, further development of NPM is limited by inconsistent and unreliable demand and lack of production knowledge. The knowledge and tools necessary to initiate an NPM market are available, but inadequate funding sources and insufficient information sharing hinder its development. Communication among producers, land managers, buyers, and researchers, as well as partnerships with local growers, appear to be vital to initiating a functional market.

**Key words:** local genotype, market perception differences, native plant market, native plant policy, web-based survey.

## Introduction

Over the past century, in the Southwest, land use and management practices in conjunction with changing climate conditions have led to alteration of native ecosystems and a fire regime shift from frequent, low-intensity surface fires to large high-intensity crown fires (Covington & Moore 1994; Westerling et al. 2006). Many native species in southwestern *Pinus ponderosa* Dougl. ex Laws. (ponderosa pine) forests are well adapted to periodic drought and fires of low intensity (Hunter & Omi 2006). However, drought conditions and wildfires are projected to increase in the region (McKenzie et al. 2004; Westerling et al. 2006; Seager et al. 2007). As a result, prolonged drought stress and a changing fire regime may have direct effects on local plant community composition and structure (Hanson & Weltzin 2000; Wang & Kembell 2005; Hunter & Omi 2006). In light of these concerns, interest

in restoring these disturbed lands has become more widespread (Allen et al. 2002; McKay et al. 2005).

In recent years with major fires such as the 2000 Cerro Grande and the 2002 Rodeo-Chediski, wildfires have arguably become the primary driver of restoration and rehabilitation efforts in the Southwest (Friederici 2003). Land management agencies such as the U.S. Forest Service (USFS) and U.S. Bureau of Land Management (BLM) are required to prescribe emergency watershed-rehabilitation measures when and where deemed necessary to: (1) stabilize soil; (2) control water, sediment, and debris movement; (3) prevent ecosystem degradation; and (4) minimize threats to human life or property. Among post-fire rehabilitation treatments, grass seeding is the most commonly used and cost-effective method to stabilize soils and establish ground cover for erosion control (Richards et al. 1998; Robichaud et al. 2000; Beyers 2004; Wolfson & Sieg in press) on firelines and hillslope areas determined to require protection.

In Arizona and New Mexico, both the area burned by wildfire and the funding allocated for post-fire seeding have increased dramatically in the last 30 years (Wolfson & Sieg in press, Fig. 1). Regionally, seed used for post-fire seeding has shifted from mixes dominated by perennial non-native species to mixes incorporating more native species (Wolfson & Sieg in press), although non-natives are still used. Beyond post-wildfire rehabilitation, revegetation is an integral component of other land management practices in the region including

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