

Quail Ranch Native Grassland Restoration Research Plantings

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As the *Texas Native Seeds Program* continues to release new native plant seed releases into the commercial market, there is an opportunity for research on planting techniques. Results of this research will help inform the public and private business operators on best practices for restoration. These projects also help to define the areas of adaptation of each seed product.

The *Permian Basin-Panhandle Native Seed Project* (PBPNSP) has partnered with Concho Resources, Inc. to install 20 acres of plantings on the Quail Ranch, located in Upton County. The plantings include two separate 10-acre sites. Each site was no-till drilled with native plant seed mixtures containing 15 species. Each site also includes 5 acres enclosed with rabbit-proof fencing to study the impacts of herbivory on restoration seeding.

Results from these initial experiments showed that in areas where rabbit herbivory was excluded, successful restoration was achieved. All species seeded were present 3 years after planting. In seeded areas where herbivory was allowed, the invasive species, Lehman lovegrass, dominated the vegetation and the seeded species were negatively impacted or eliminated entirely by rabbit grazing. In the future, larger scale plantings, or ones that include nurse-crops may be necessary to achieve successful stand establishment of native plants during times of high rabbit density in the Permian Basin.

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