

Permian Basin and Panhandle Native Seed Project Collections and Evaluations

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Energy development and associated activities in the Permian Basin and Texas Panhandle create a major demand for native seeds in restoration or remediation projects. A critical part of providing native seeds is the development and commercialization of locally adapted native germplasm, which is needed to ensure planting success. Obtaining wild seed collections from the region, evaluating them for important traits, followed by selection and seed increase of desired populations helps make locally adapted seed available. Since November 2017, we have made over 300 collections of 24 forbs and 26 grasses from this region. Collections were from private and public lands in cooperation with numerous ranches, energy companies, and agencies.

Collections will be planted for evaluation at the Railway Ranch in Odessa and the USDA Natural Resources Conservation Service Plant Materials Center in Knox City for evaluation and future selection. An additional evaluation site is also being sought. In 2018, populations of hairy grama, tall grama, sideoats grama, seep muhly, and hooded windmillgrass from this region and adjacent ones were evaluated at these locations. In 2019, we established new evaluations of hairy grama, tobosa grass, and narrowleaf globemallow at Odessa, and gayfeather and Indiangrass at Knox City. Collection, development, and release of locally adapted native seed sources should greatly improve restoration and reclamation outcomes in this region.

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