

## **Development of seeding specifications for the Texas Department of Transportation**

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Texas Department of Transportation (TxDOT) manages over 1 million acres in Texas and is an influential consumer of native seed products statewide. The agency's seeding specifications directly influence the commercial seed industry and seed markets because of seed use in rights of way seeding projects, and indirectly because many entities voluntarily follow the agency's specifications. Restoration of 70% of the adjacent ground cover using perennial vegetation is required of TxDOT by the Clean Water Act following construction or maintenance activities impacting an acre or more along roadways. Other provisions encourage the use of native plants whenever possible. However, in many areas of the state, native seeding projects have historically had low success rates.

To identify the best native seeds for TxDOT's use, we evaluated the performance of a wide variety native plant seed sources in comparison to other native and exotic seeds currently used by TxDOT at 7 locations across Texas from 2010-2014. Performance traits measured included seedling emergence, cover potential, survival, height, and biomass production. Using these data and information on commercial availability, we developed revised seeding specification guidance for use in all rural seeding projects in TxDOT districts in South, Central, and West Texas. These new seeding specifications, which remove exotic species and include only native plants, will be formally published in TxDOT's 2014 specification book and will go into effect in winter 2014-2015. Construction projects bid after this date should utilize native seeds exclusively for restoring vegetation cover in rural areas of South, Central, and West Texas.

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