# South Texas Natives
# &
# Texas Native Seeds



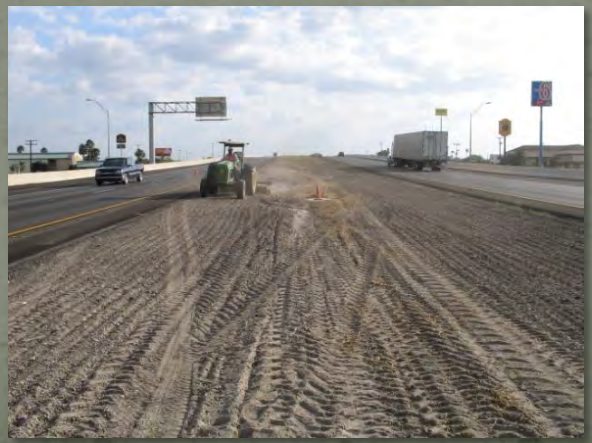
**Forrest S. Smith**

***Dan L Duncan Endowed Director***

# Partners & Collaborators

- Caesar Kleberg Wildlife Research Institute, Texas A&M University-Kingsville
- USDA NRCS E. “Kika” de la Garza Plant Materials Center
- Texas A&M AgriLife Research Station-Beeville
- Texas Department of Transportation
- Rio Farms, Inc.
- Douglass King Seed Company
- Pogue Agri Partners
- 100’s of private landowners and managers


0 25 50 100
Miles
Postoak Savana
Blackland Prairies
Coastal Sand Plains
Edwards Plateau
Gulf Coast Prairies & Marshes
Rio Grande Plains
Trans Pecos
VAL VERDE
KINNEY
UVALDE
MEDINA
BEXAR
WILSON
KARNES
GOLIAD
VICTORIA
BEE
REFUGIO
SAN PATRICIO
NUECES
KLEBERG
JIM WELLS
LIVE OAK
MCMULLEN
DUVAL
WEBB
LA SALLE
DIMMIT
MAVERICK
ZAVALA
FRIO
ATASCOSA
ZAPATA
JIM HOGG
BROOKS
KENEDY
STARR
WILLACY
HIDALGO
CAMERON
N
W
E
S



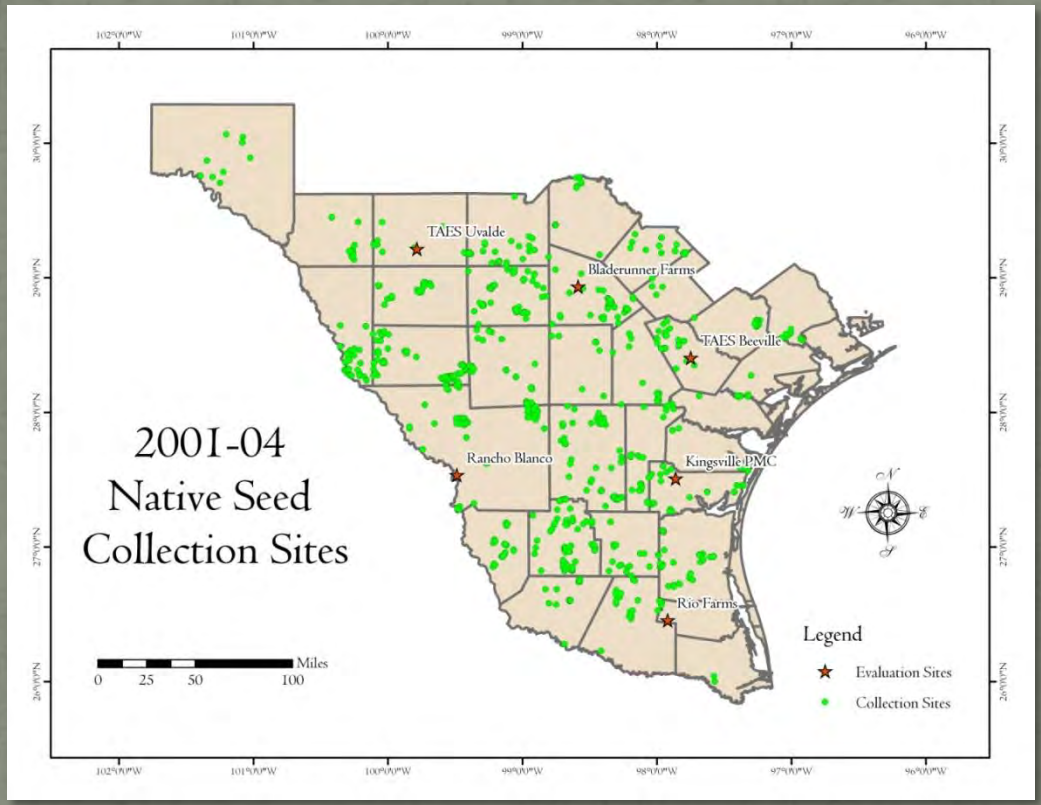
# Mission:

- Develop and promote native plants for restoration and reclamation of public and private lands of South Texas
- Started 2001, at bequest of private landowners
- 3 pronged approach:
  - Collect, increase, and provide adapted native seeds to industry to mass produce at reasonable costs, thus making them available to consumers
  - Conduct research to develop practical restoration and reclamation techniques
  - Disseminate information and demonstrate native plant restoration

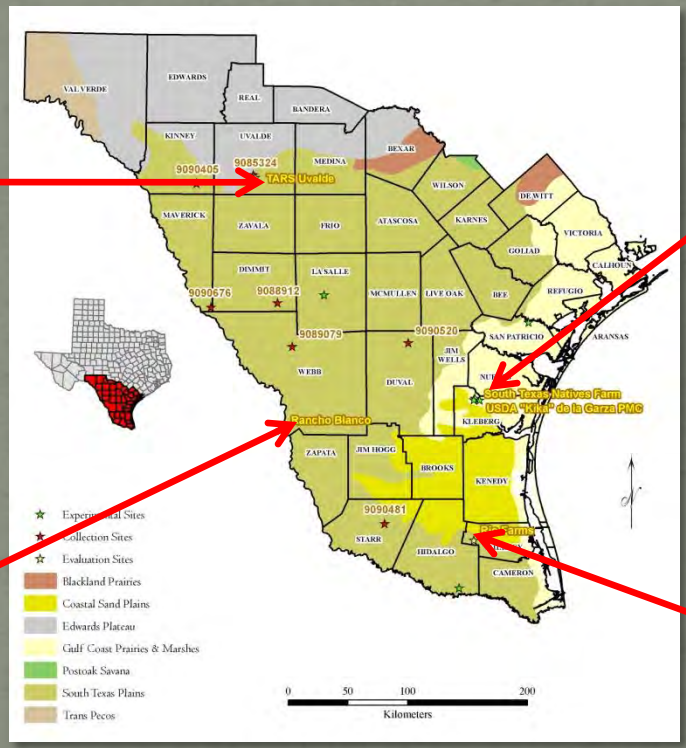
# Our seed source development process:
# Example: Pink Pappusgrass (*Pappophorum bicolor*)

# Collection


TEXAS A&M
KINGSVILLE
WILDLIFE
RESEARCH


TAES Uvalde
Bladerunner Farms
TAES Beeville
Rancho Blanco
Kingsville PMC
Rio Farms
2001-04
Native Seed
Collection Sites
Miles
0 25 50 100
Legend
Evaluation Sites
Collection Sites

# Multi-site Initial Evaluation




# Advanced Evaluation

Isolated seed increase and production evaluations

Commercial producer trials

Field plantings and monitoring

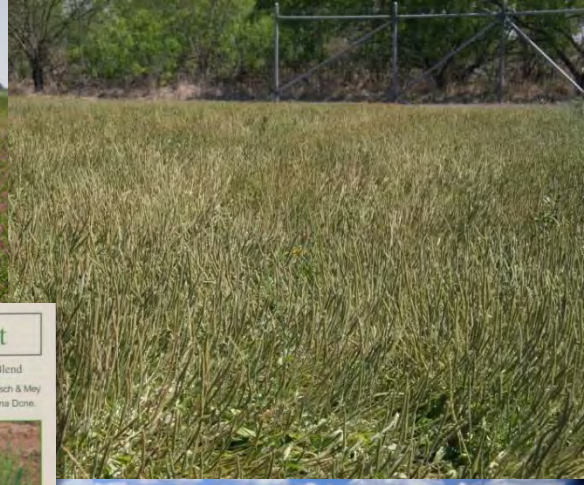
# Seed Increase-7 populations, isolated



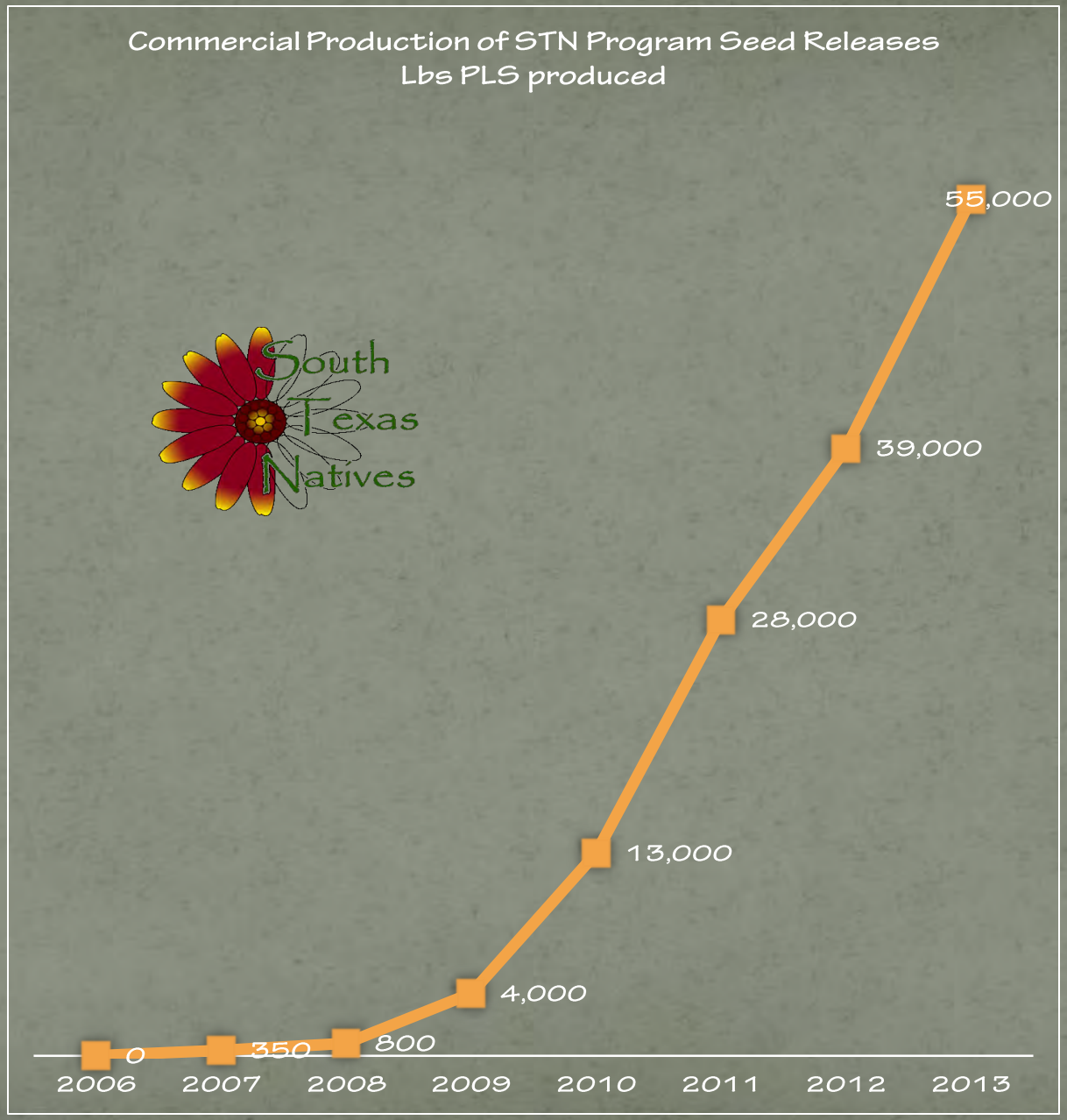




# Release and Commercialization

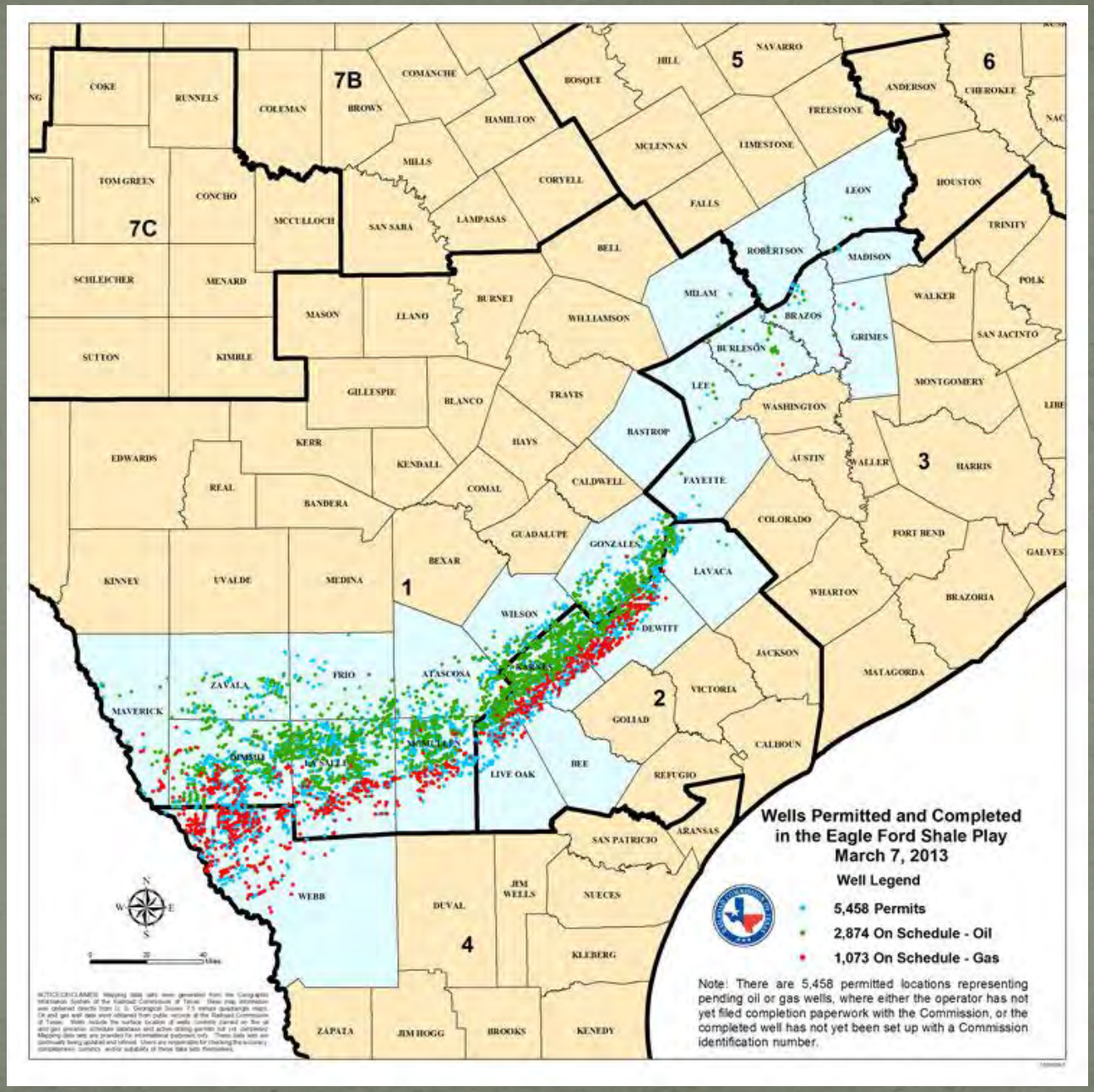



La Salle
Germplasm Arizona Cottontop
Digitaria californica (Benth.) Henr.
Atascosa
Germplasm Texas Grama
Bouteloua rigidiseta Steud.
Chaparral
Germplasm Hairy Grama
Bouteloua hirsuta Lag. var. hirsuta
Dilley
Germplasm Slender Grama
Bouteloua repens (Kunth) Scribn. & Merr.
Divot
Tallow Weed Blend
Plantago hookeriana Fisch & Mey
Plantago rhodosperma Dcne.
South Texas Natives
USDA NRCS
AgriLIFE RESEARCH
Welder Germplasm
Shortspike Windmillgrass
Chloris x subdolichostachya Muell. (pro sp.) [cucullata x verticillata]
Mariah Germplasm
Hooded Windmillgrass
Chloris cucullata Bisch.
Catarina Blend
Bristlegrass
Setaria leucopila (Scribn. & Merr.) K. Schum. and Setaria vulpiseta (Lam.) Roemer & J.A. Schultes
Goliad Germplasm
Orange Zexmenia
Wedelia texana (A. Gray) B.L. Turner
E. "Kika" de la Garza Plant Materials Center
Kingsville, Texas
Zapata
Germplasm Rio Grande Clammyweed
Polanisia dodecandra (L.) DC. ssp. riograndensis


Commercial Production of STN Program Seed Releases
Lbs PLS produced
South Texas Natives
0
350
800
4,000
13,000
28,000
39,000
55,000
2006
2007
2008
2009
2010
2011
2012
2013

# Impact of seed sources:

- Adapted native seed available for 30,000 acres of restoration plantings/year available to consumers
- Most is being sold and used annually
- Gov't agencies using seeds: TxDOT, NRCS, International Boundary Water Commission, USFWS
- Reclamation associated with energy exploration using seeds (private lands)
- Rangeland restoration is increasingly using native seeds (private lands)


7B
7C
5
6
1
2
3
4
COKE
RUNNELS
COLEMAN
BROWN
COMANCHE
HAMILTON
BOSQUE
HILL
NAVARRO
ANDERSON
CHEROKEE
FREESTONE
LIMESTONE
MCLENNAN
MILLS
CORYELL
FALLS
LEON
HOUSTON
TRINITY
TOM GREEN
CONCHO
MCCULLOCH
SAN SABA
LAMPASAS
BELL
ROBERTSON
MADISON
POLK
WALKER
SAN JACINTO
SCHLEICHER
MENARD
MASON
LLANO
BURNET
WILLIAMSON
MILAM
BRAZOS
GRIMES
BURLESON
SUTTON
KIMBLE
GILLESPIE
BLANCO
TRAVIS
LEE
WASHINGTON
MONTGOMERY
EDWARDS
KERR
KENDALL
HAYS
BASTROP
REAL
BANDERA
COMAL
CALDWELL
FAYETTE
AUSTIN
WALLER
HARRIS
GUADALUPE
GONZALES
COLORADO
FORT BEND
BEXAR
LAVACA
KINNEY
UVALDE
MEDINA
WILSON
DEWITT
WHARTON
BRAZORIA
JACKSON
ZAVALA
FRIO
ATASCOSA
VICTORIA
MATAGORDA
MAVERICK
GOLIAD
CALHOUN
LIVE OAK
BEE
REFUGIO
ARANSAS
SAN PATRICIO
WEBB
DUVAL
JIM WELLS
NUECES
KLEBERG
ZAPATA
JIM HOGG
BROOKS
KENEDY
Wells Permitted and Completed in the Eagle Ford Shale Play
March 7, 2013
Well Legend
5,458 Permits
2,874 On Schedule - Oil
1,073 On Schedule - Gas
Note: There are 5,458 permitted locations representing pending oil or gas wells, where either the operator has not yet filed completion paperwork with the Commission, or the completed well has not yet been set up with a Commission identification number.


Eagle Ford Shale Pipeline Right of Way
Installed Fall 2012, Seeded February 2012
Picture Taken September 2012
Reseeded with *South Texas Natives* Seeds
Not Reseeded

10 miles of native grass

# Another example of partnerships:
## Texas Department of Transportation

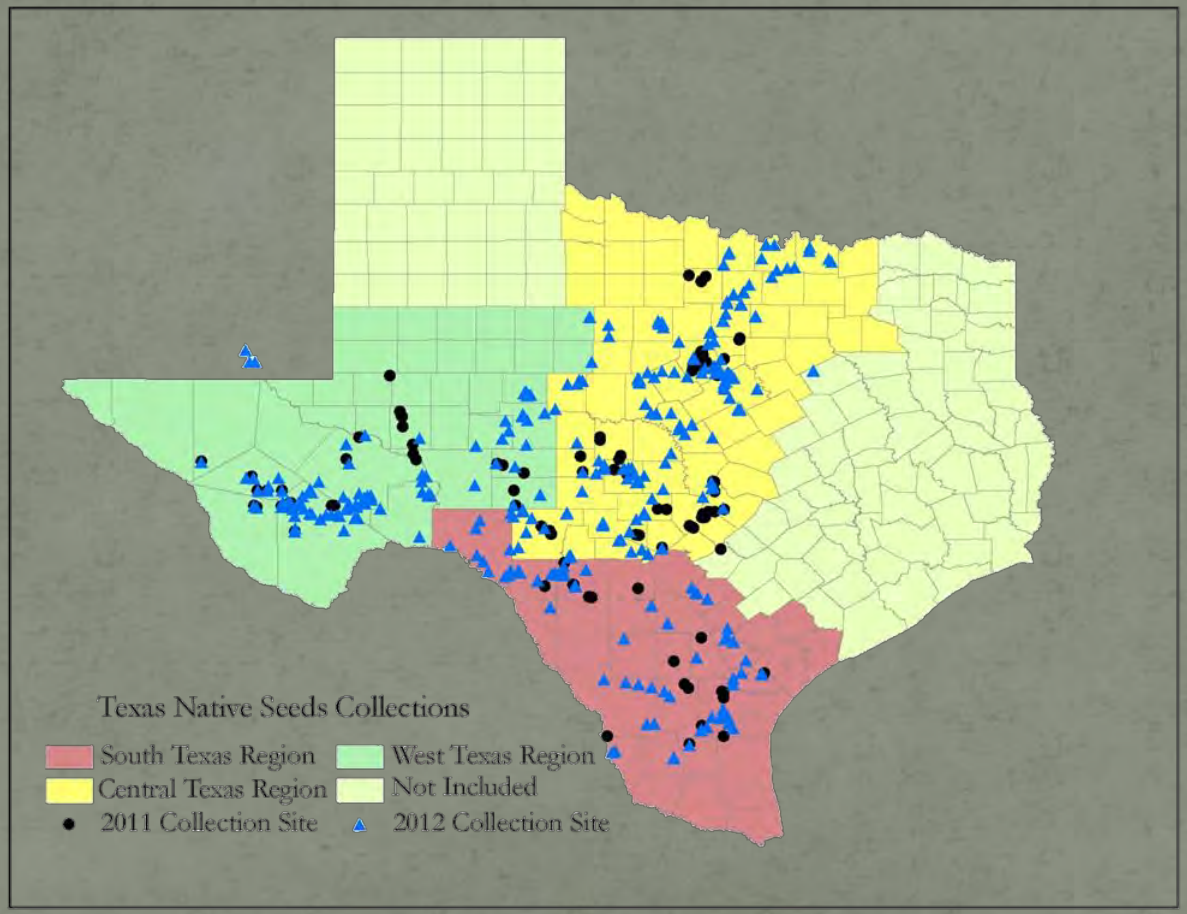
- 13 year partnership
- 2001-available native seeds worked poorly on South Texas roadsides
- 2011-new seeding specifications
- Seed mixes of native grasses now used by TxDOT were made available by *South Texas Natives*

# Cost per acre today-sandy loam soil

| Variety | % of mix | Cost /acre | Cost per acre in mix |
|---|---|---|---|
| La Salle Germplasm Arizona cottontop | 5 | $110 | $5.50 |
| Dilley Germplasm slender grama | 5 | $170 | $8.50 |
| Maverick Germplasm pink pappusgrass | 10 | $105 | $10.50 |
| Webb Germplasm whiplash pappusgrass | 10 | $150 | $15.00 |
| Catarina Blend Bristlegrass | 10 | $50 | $5.00 |
| Kinney Germplasm 2 flower trichloris | 10 | $84 | $8.40 |
| Hidalgo Germplasm 4 flower trichloris | 10 | $61 | $6.10 |
| Mariah Germplasm hooded windmillgrass | 10 | $49 | $4.90 |
| Welder Germplasm shortspike windmillgrass | 10 | $41 | $4.10 |
| Oso Germplasm halls panicum | 10 | $41 | $4.10 |
| Chaparral Germplasm hairy grama | 10 | $70 | $7.00 |
| **Total seed cost per acre** | | | **$79.10** |

# Texas Native Seeds

# Seed Collection Progress 2011-2012



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Caesar Kleberg WILDLIFE Research Institute

*Providing the science behind wildlife conservation and management*

# South Texas Natives

An initiative to develop and promote native plants for restoration and reclamation of habitats on private and public lands.

About | Who We Are | Project Methods | Plant Releases | Native Plant List | Demonstration Projects | Publications | Gift Giving | Restoration Seeding Information for the Eagle Ford Shale | Seeding Recommendations | Contact Us | Links

FEATURED NEWS

## Native Plants - The Foundation for Good Wildlife Habitat

By Colleen Schreiber - SAN ANTONIO - What constitutes good wildlife habitat? In two words - native plants. At least, according to Forrest Smith, director of South Texas Natives, that's where it all begins.

[more]

## South Texas Natives Holds Native Seeding Training Session

South Texas Natives in collaboration with the Natural Resource Conservation Service and the Grazing Lands Conservation Initiative hosted a native seeding training session on July 27th 2011 at the Tio and Janell Kleberg...

[more]

## South Texas Native Plant Model to Expand to Other Eco-Regions

By Colleen Schreiber - KINGSVILLE - A native plant restoration revolution is underway in South Texas, and now the effort is expanding to the north and to the west.

South Texas Natives

## Plant Profile

Deer Pea Vetch

Deer Pea Vetch is a low-growing annual forb found frequent on a variety of soils in the Rio Grande Plains and Coastal Prairies. The leaves and seeds are consumed by white-tailed deer, cattle, bobwhite quail, and Rio Grande turkeys.

## E-Newsletter

**http://ckwri.tamuk.edu/research-programs/south-texas-natives/**