

## A Historical Sketch of Our Native Seed Program: Milestones and Stumbling Blocks

by Fred C. Bryant

Who were the early key players? When I arrived at CKWRI back in 1996, many of my travels across South Texas were punctuated by questions from landowners. One of the burning questions, besides quail management, was focused on “why don’t we have native plants for restoration of roadsides, pipelines, energy exploration or simply restoring an old farm field?” My pat answer was, we simply don’t have the plant materials available, except for small plots about the size of your backyard. Not only that, but we don’t have a seed industry that is focused on it, especially when they can produce buffleggrass, Old World bluestems, Bermuda grass and the like. These are cheap to produce, cheap to sell, they establish quickly and easily, and unfortunately, some landowners don’t care one way or the other.

But our landowners wouldn’t accept that answer. I will never forget a meeting with a few landowners who frankly said, “why don’t you quit whining and do something about it?” My two early compadres in the “need for native plants” lamentations were Paula Maywald, who worked for Bass Ranches, and Dr. Lynn Drawe, Director of the Welder Wildlife Refuge. We had many a meeting studying the problem and trying to figure out what to do and how to do it. We leaned heavily on the USDA Plant Materials Center in Kingsville and what was being done in other states, like Iowa. USDA had actually developed a few native seed selections but had not been able to



Tony Falk

Growing out native seeds at the Texas Native Seed nursery in Kingsville, Texas.

get the seed industry involved in producing them. Without the commercial industry producing seed at a large scale (think thousands of acres), we were going nowhere.

After a small meeting of landowners in 2001, the Robert Jr. and Helen Kleberg Foundation and the Lee and Ramona Bass Foundation stepped up and said, “We will get you started. We don’t know if you know what you are doing, but we believe you deserve a shot at it.” That was the genesis of South Texas Natives (STN). Not too long after, I requested permission from the Bass Ranches to hire Paula Maywald as our leader in this effort. Paula was our first employee of the South Texas Native Plant Restoration Project (later shortened to South Texas Natives). Under Paula’s leadership, undergraduate students working for STN made thousands of seed collections from private ranches in South Texas. These collections, and collaborations with private landowners were the backbone of the almost two dozen native seed releases made in the next two decades.

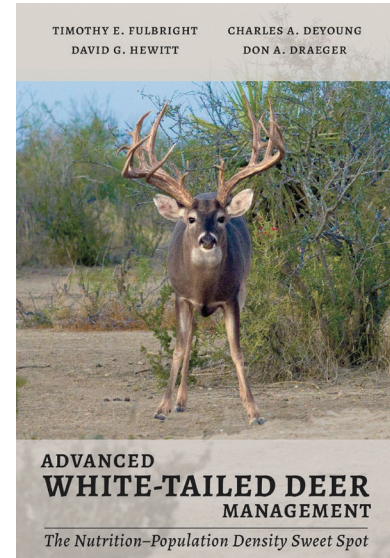
Editor’s note: Dr. Fred C. Bryant is the Director of Development and former Leroy G. Denman, Jr. Endowed Director of Wildlife Research at CKWRI. ~



## CKWRI News

### WTD Management Book

CKWRI researchers have released a new book that sums up the 15-year Comanche-Faith Project. The book provides a critical resource for hunters, landowners, and wildlife managers regarding optimal deer densities and supplemental nutrition. Find that “Sweet Spot” for your white-tailed deer!



### Wildlife Photography Endowment

An endowment for the Wildlife Photography program has been established by John Martin, founder of the Images for Conservation Fund, and Roger Zessin, who founded the Wildlife in Focus photography contest. The endowment will enable students in Rangeland and Wildlife Sciences and CKWRI to earn a minor or certificate in wildlife photography.



John Martin, Roger Zessin, and Dave Hewitt (l-r, back row) look on as Texas A&M University-Kingsville president, Dr. Robert H. Vela, Jr., signs the Wildlife Photography endowment paperwork.

What were the early stumbling blocks? Once we had the seeds in hand, we needed equipment like temperature-controlled seed storage, tractors, seeding boxes, greenhouses, and on and on. And we needed people to help. We formed an Advisory Group headed up by Katherine Armstrong Love and Will Harte. They were instrumental in getting us off and running. I will never forget calling Raymondville farmer and rancher, Stormy Stone, one day, asking him if he would rent us a tractor for a couple of months. His reply was, “I don’t rent tractors. But go down to McAllen’s equipment dealer and pick out a new one. I will pay for it.” That’s how we got our first tractor.

Paula hired several undergraduates to help her, one being Forrest Smith. After Paula decided to pursue private consulting as her next adventure, Forrest had graduated and I asked him to run the program for a couple of months while I did a nationwide search to replace her. After Forrest was on the job for only three months, it was obvious he was the person to run it, and he did an amazing job for the next 15 years. Another of the early student hires was Keith Pawelek, who came from a farming family. His experience gave us an important background, and Keith played a major role for us. Another long-time employee, Tony Falk, also joined the program in the early years, first as a graduate assistant, then later in a full-time role, and now serves as Director. Together, and at the urging of TxDOT, USDA NRCS, and private landowners, they pushed our native seed program out to the rest of Texas. Subsequently, what began as South Texas Natives evolved into Texas Native Seeds.

We struggled early on with the method of evaluating native species, how to do it, how broad the evaluation should be, and what traits are most important. Seed quality, germination, establishment, persistence, adaptability, and ease of mechanical planting all became specifications and traits we looked at. We knew those had to be successful or it wouldn’t work for landowners, or agencies like TxDOT, TPWD, or USDA-NRCS.

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### What Do They Eat?

Although Crested Caracaras are thought to primarily eat carrion, they will eat live prey as well. They will even wade in shallow water, foraging for turtle eggs or fish, and are known to take advantage of freshly burned areas to find fleeing or dead snakes and other small animals.

([https://www.allaboutbirds.org/guide/Crested\\_Caracara/lifehistory#](https://www.allaboutbirds.org/guide/Crested_Caracara/lifehistory#))

## Historical Sketch: Native Seed Program

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How did you engage the seed industry, and how were you able to “control” rigid production standards of native seeds? Early on, we worked with a few seed dealers who produced massive quantities of commercial seed like corn, sorghum, buffleggrass, Bermuda grass and the like. It became abundantly clear to us that we had to be cognizant of the importance of ensuring that a quality product was made available to consumers.

Paula and Forrest spent three years working through the maze of the Texas Department of Agriculture to come up with a way to structure seed certification for native seeds. If growers didn't follow Texas Department of Agriculture production guidelines to ensure the genetic purity of releases, or cleanliness and quality standards, the crop would not be certified for use by many consumers. Prior to this, most seed certification programs were for agricultural crops, and had not been used for native seed production in Texas. Paula and Forrest got it done. Without this, there would be no “quality control” for production of native seeds. This was HUGE!

We tried working with many different seed companies early on to listen to their needs and learn what approach we should take with the industry. After several failed efforts to commercialize the first seed releases with multiple growers, we arrived at the method of licensing releases to the most qualified producer for an initial term. These licenses resulted in an investment by the producer to increase the meager amounts of seed STN could provide into thousands of pounds



A pipeline right-of-way restored with native seeds on the Temple Ranch in Duval County, Texas.

### Did You Know?

Texas Tortoises were listed as a threatened species in 1977, meaning they cannot be possessed. (Rose & Judd. 2014. The Texas Tortoise. U. of Oklahoma Press)



of seed to be made available commercially. This was the turning point for the program to begin having the landscape-level impacts that had always been envisioned. Douglass King Seed Company and their President, Dean Williams in San Antonio, early on saw the inherent value of these new native seed selections for improving wildlife habitat. They became our first licensee, and still carry many of the releases developed by the program.

How did TxDOT become involved? In the beginning, Paula and Lynn and I had many discussions about how to get TxDOT involved. Why TxDOT you ask? There are 4 important reasons: 1) TxDot is one of Texas' largest landowners (over 800,000 acres), 2) TxDOT contractors, through road building, are among the largest purchasers of seeds in Texas, and thus influence the commercial seed market like no other (think of the proverbial 800-pound gorilla) 3) Their impact is linear, meaning that anything planted along a new or refurbished road spreads to thousands of adjacent landowners, the bad stuff AND the good stuff. Finally, TxDOT's specifications are utilized by many other industries in Texas, Thus, native seeds made available through the TNS and TxDOT partnership beneficially impact many thousands of acres of non-TxDOT property annually as well.

We met early on with TxDOT district managers to get their perspective. We expressed our alarming concern about them using non-native, exotic and more importantly, invasive species in their planting mixes along roadsides. Three primary observations were apparent. First, they build roads and bridges and are not worried about what is planted as a roadside recovery effort. Second, availability of natives in the seed industry in quantities needed for large-scale restoration along roadsides was a concern. Third, no matter what they plant, the EPA requires them to have the soil covered within 60 days after planting to slow and prevent soil erosion. This was an added complication. They were open to the idea of using native plants though. Replanting roadsides was an issue for TxDOT, and it would not be needed as often with native plants because they should establish more quickly and better over longer timeframes than non-natives.



## Advisory Board

The Advisory Board of the Caesar Kleberg Wildlife Research Institute provides leadership in all aspects of our work. We are indebted to them for their commitment to the Institute and its mission.

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Basically, we got no traction for support early on until we got to the higher levels of the TxDOT administration. But today, 22 years later, TxDOT is one of our most important partners in this effort. They have helped fund our work; they now promote the use of native plants. And, here is a groundbreaker—non-native, invasive species have been largely removed from seeding specifications when road construction jobs are bid in rural areas. In their place, sources from CKWRI's Texas Native Seeds and our partners in the USDA Plant Materials Program are now listed. Landmark stuff!

About 10 years ago, I was asked at a meeting, "what is the biggest flaw or weakness in the Texas Native Seeds program?" My immediate response was the Director's position is not permanent. If donor support or agency support falls through in one year, the Director may be out of a job. To make it permanent, the position needed to be endowed. I guess word got around because a few months later, the Duncan Family from Houston endowed the Director's

position to honor the memory and legacy of Dan L. Duncan. Without a doubt, this was as important to us as anything that has been accomplished.

Today TNS has 13 full-time employees and 15 part-time or student employees from 4 different universities. These employees are spread throughout the state focused in 6 different project regions. We have also grown from that initial financial support to an annual operating budget of nearly \$2.5 million. And, in conjunction with our partner, the USDA NRCS Plant Materials program, we have completed 42 native seed releases, which are currently sold by 4 different licensed seed vendors. You could say we have grown strong roots and over the past 22 years, become Texas' leading authority on native plant development. ~

### By The Numbers

7.5 Feet is the average wingspan of the endangered Whooping Crane (*Grus americana*).  
(<https://tpwd.texas.gov/huntwild/wild/species/whooper/>).



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Editor: Sandra Rideout-Hanzak, Ph.D.

Wildlife Research is printed on recycled paper.

