# The UF- Forage Breeding Program

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The University of Florida's Forage Breeding Program includes a wide array of forage grass and legumes species because Florida's environment is so diverse, ranging from tropical to temperate conditions. Forage breeding is based at both the North Florida Research and Education Center (NFREC-Marianna and Quincy) and at Gainesville. We focus breeding on the sub-tropical forages like bahiagrass, bermudagrass, perennial peanut and limpograss, and temperate species that include triticale, cereal rye, oat, ryegrass, alfalfa and clover.

The University of Florida supports four forage breeders that work as a team to develop and test new forages for Florida and areas of similar climate. Ann Blount, Patricio Munoz, Kevin Kenworthy and Ken Quesenberry (Professor Emeritus) comprise the work group. Ann Blount is located at the NFREC. Patricio Munoz, Kevin Kenworthy and Ken Quesenberry are located at Gainesville. We work collaboratively on developing new cultivars for the southeastern U.S. Our cultivars are also grown world-wide because of their adaptation to areas of the world with similar climates. Recently, we added a new small grains breeder, Ali Babar, at Gainesville, who will work with us on forage-type small grains.

There are several forage management specialists in the state who aid us in evaluating new experimental forages for nutritional quality, persistence and management strategies. Our forage management faculty includes Joao Vendramini at the RCREC-Ona, Jose Dubeux at the NFREC, and Lynn Sollenberger and Yoana Newman at Gainesville. Ann, Joao, Jose and Yoana are also the state forage extension specialists. Many articles related to forages utilized in the state, our recommendations, management and integration into pasture or conserved forage systems are available on-line at EDIS, our extension publication site for UF-IFAS.

The University of Florida's Forage Breeding Program has been very successful in forage cultivar development and in basic research related to forage and small grain improvement. Since 2005 through 2014, of new southern forage cultivars released by public institutions in the southeastern U.S., 80 % were developed or co-developed by the University of Florida's Forage Breeding Program.

Because of our unique location in northern Florida we have developed a strong multi-state forage program across state lines. We are very actively involved with forage researchers at the University of Georgia, University of Kentucky, North Carolina, Clemson, Auburn, Texas A&M, and Louisiana State Universities, and with scientists at the USDA-ARS (CPES, Tifton, GA) and USDA-NRCS (Brooksville, FL and Americus, GA). The University of Florida's Forage Breeding Program is also an active member of

the SUNGRAINS consortium, a six-university cooperation of plant breeders who work collaboratively on small grains (oat, wheat, triticale and rye) variety development.

We also partner on several international projects. At present, we are developing a long-term research agreement with the UNNE, at Corrientes Argentina to co-develop forages for North and South America. Similarly we are working with EMBRAPA forage specialists in Brazil on *Paspalum* and *Arachis*. Recently, we began a collaboration to develop forage small grains for Western Australia. We have also been a major contributor and active participant with the PepsiCo-Quaker Oat Program.

Grants and royalty earnings over the past 5 years have totaled well over $2 million dollars. These funds have been used to fund many of our graduate student programs. Granting sources have included support from agencies such as CSREES, SARE, NRI, AFRI, FDACS, FDOT, FTGA, and NWFWM.