

2020 USAFRI Research Project Objectives

Alfalfa Bermudagrass Management Guide and Additional Educational Resources University of Georgia - Tucker

Project Award: \$20,500

Justification:

- Alfalfa production in the South is not a new idea, and many years ago alfalfa was once the dominant perennial legume species used in the region. However, the harsh environmental conditions and cheap nitrogen fertilizer sources soon eliminated many productive alfalfa stands (Lacefield et. al., 2009). In recent years, there has been an increase in educational efforts, plantings, and adoption of alfalfa in the Southern U.S. During this time period, based on reported seed sales in Georgia, approximately 28,000 acres of alfalfa have been planted in the region, a trend that is expected to continue as researchers continue to investigate the variety of applications of alfalfa in the region.

Alfalfa success stories in the South can look very different than the traditional management seen in the northern and Midwestern regions of the U.S. Alfalfa utilization in the South involves varieties developed specifically for the region, known for having greater drought, heat and pest tolerance, potential for dual-purpose use (grazing and hay), and very long growing seasons as most recommended varieties are semi- to non-dormant. Further, university research and on-farm producer application have determined that interseeding alfalfa into warm-season perennial grass sods provides great potential for extending the growing season, improving the quality of the forage base, and easily fits into current livestock-forage systems with minor management adjustments. This method of alfalfa integration is especially appealing as it does not require complete renovation of the land area and provides producers with a backup plan if stand failure were to occur as they would still have their perennial grass base.

PI's Tucker and Mullenix have evaluated the use of alfalfa-bermudagrass mixtures under various practices in the South with much success related to understanding yield characteristics, persistence, and nutritive value under various management strategies. They have determined that these mixtures are a viable option for producers and a successful approach to increasing alfalfa acreage in the South, while engaging producers through on-farm and in-person educational efforts (Tucker et al, 2019). Most educational reference materials developed on alfalfa use in the South have focused on management of monoculture systems and were developed more than 10 years ago. Integrated alfalfa-bermudagrass systems require different management guidance, and while there are a few publications available through Extension outlets, most of the current alfalfa bermudagrass guidance are in the form of quick fact sheets, webinars, and face-to-face presentations. Currently, there is not a complete printed producer- friendly guide for establishment and management specific to alfalfa in bermudagrass systems. A national resource guide on this topic could be used by producers, research, Extension, and industry leaders to help expand the distribution of information regarding alfalfa use in the southern region of the US, and would provide a central reference piece that highlights the efforts of research and on-farm work in the region.

Objectives:

- The objectives of this project are to 1) develop a NAFA publication on the management and production of alfalfa bermudagrass mixtures; and 2) develop a spiral bound alfalfa in bermudagrass quick resource pocket calendar for producers.