ONA REPORTS

published in

THE FLORIDA CATTLEMAN AND LIVESTOCK JOURNAL

February - 2002

Pintoi Perennial Peanut

Dr. Rob Kalmbacher and Dr. Al Kretschmer, Jr.
University of Florida
Range Cattle and Indian River Research and Education Centers

For questions or comments regarding this publication contact
Dr. Rob Kalmbacher

Besides the edible peanut, there are several Arachis (the genus to which peanuts belong) species that have value as forage or cover crops. The most well known is ‘Florigraze' (Arachis glabrata), which is grown on 22,000 acres in Florida and south Georgia. Florigraze produces few seed and is established vegetatively. It is very persistent on moderately to well drained soils, but is not adapted to periodically flooded pasture in central and south Florida.

Another species, Arachis pintoi, is used commercially in Australia and Latin America. Pintoi peanuts are adapted to wetter soils than A. glabrata peanuts, and they can be established from seed or by planting stolons. ‘Amarillo', the pintoi cultivar commonly grown, is low growing (up to18" tall) and fairly persistent. Since 1994, 22 pintoi entries have been tested under grazing in bahiagrass pasture in nine trials (St. Cloud [1], Keenansville [2], Okeechobee [2], Ona [1], St. Lucie [2], and Indiantown [1]) that represent several soils and environments. While a few of the entries were still present after 7 years, none (including Amarillo) showed much potential as a pasture legume. Although they are competitive with bahiagrass and tolerant of periodic close grazing, they are not vigorous and do not spread to become an important part of the pasture.

Included in the trials with the pintoi peanuts were a few Arachis stenosperma (steno) entries. To our knowledge, steno peanuts are not used anywhere for pasture, but they are excellent seed producers and they spread fairly quickly compared to pintoi peanuts. Compared to pintoi peanuts, their vegetative density is lower and they are less persistent. However, we seeded about 10 acres to a steno mixture in a bahiagrass pasture at Deseret Cattle and Citrus in 1996 and a good stand is still present after 5 years of grazing. This

was a flatwoods-type pasture, but it was adjacent to a canal and the pasture did not flood. We believe these peanuts have been regenerating annually from seed.

Citrus cover crops have been used almost since citrus was commercialized in Florida. During the past decade, Florigraze has been used and is very persistent, but cost of vegetative establishment is high and plant coverage is slow. In 1995, citrus cover crop research with nut-producing types of wild peanuts began with the comparison of 30 accessions planted when citrus was set on two double-bedded sites on flatwoods soils and one on a typical non-bedded ridge site. Larger plantings have been made from nuts harvested at the Indian River REC and from a field near Lake Gem.

All peanut types established faster and persisted better as citrus cover crops than in bahiagrass pasture. Peanuts will survive on the sides of the double beds down to where water stands on wetter sites. Amarillo and other pintoi peanuts are excellent, although their rate of spread is slower than the steno types. By the third growing season, a few types had spread more than 15 feet from the original row. Most of the peanuts competed well with weeds, including some bahiagrass. Normal herbicide practices under citrus-tree rows controlled all peanuts tested. Peanuts tested were drought tolerant even during the 2000-2001 drought.

Nuts can be planted at 5 to 7 lb/acre from February to September. Steno nuts planted in March or April at this rate on clean cultivated soil should have complete coverage by summer of the following year.

Currently, commercial nut availability is the limiting adoption of these peanuts as citrus cover crops. Haile Dean has built a prototype commercial digger, but it is slow and subject to problems if soil condition is not favorable. Also, large fields to supply nuts are not available. Actual nut yields do not seem to be the problem with 400 to 500 lb/acre of harvested nuts out of an estimated 1000 lb/acre available. Most nuts are located about 4-inches deep for pintoi types and 2- to 3- inches deep for steno types. In citrus under 4-years of age, peanuts can be mechanically harvested without tree or root damage, so if a producer was successful with an initial planting, it could be the source of additional nuts.

Although the prospect of nut-producing peanuts currently may be better for citrus than pasture, cooperative research with faculty at several University of Florida locations is focusing on those peanut types that have shown potential for pasture. Dr. Mimi Williams at the USDA Subtropical Research Center in Brooksville will be going to Paraguay in 2002 to collect more wild peanut types.