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'Florida' Carpon Desmodium Can Be Used With Bahiagrass

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A long-lived, grazing-tolerant pasture legume, 'Florida' carpon desmodium, can contribute nitrogen to peninsular Florida flatwoods pastures. Although this perennial summer legume has been commercially available in Florida for the past 10 years, it has not been widely used. Poor seedling vigor, resulting in loss of stands during initial establishment, has been a major limitation to the use of this legume. Evaluations of early commercial plantings, contrasting stand failures and successes, plus recent experimental trials indicate that 'Florida' carpon desmodium can be established with both establishment cost, and risk of stand failure minimized.

In Central Florida, early spring moisture is typically adequate for an early March planting to establish prior to expected dry periods in April. The chances of loss of an entire stand due to lack of moisture during the seedling stage are high for carpon desmodium plantings made from late March through early May. Thus, time of planting is critical due to lack of drought tolerance in the seedling stage. Planting carpon desmodium in early March and from late May through June will minimize this risk of establishment failure.

Seedbed preparation and plant competition during establishment of carpon desmodium are also critical. While it appears reasonable that a well prepared clean seedbed would be best, this has not proven to be true in many instances. Although a clean seedbed provides an opportunity for germination under limited competition, numerous fast-growing weedy species quickly provide aggressive competition. Economical chemical weed control methods are not available. Thus, weed competition is likely to be a limitation to establishment of carpon desmodium on well prepared seedbeds. When sown on heavily grazed bahiagrass stands, the success rate has been much higher. Disking or chopping prior to seeding helps to get seed in contact with soil when grazing pressure has been low. However, maintaining adequate grazing pressure through the first growing season is more critical than is disruption of a heavily grazed sod. Thus, along with proper date of

planting, a second key factor in establishment of carpon desmodium stands is limited competition from other plants during the establishment year. Planting on an established bahiagrass sod which is grazed moderately to heavily throughout the spring and summer in the year of establishment appears to be an appropriate approach.

Some additional considerations include the need to reduce or defer grazing during the fall, especially in the year of establishment. Also, carpon desmodium should be used primarily on pastures where nitrogen fixation will be reduced and the legume growth will be less competitive with the associated grass under nitrogen-fertilization.

Carpon desmodium can be established much more effectively than initial experiences indicated. Seeding date and control of competition during plant establishment are critical. Benefits to be expected from stands of the legume in bahiagrass pastures include higher forage protein levels during mid summer and addition of biologically-fixed nitrogen equivalent to 25 to 50 pounds per acre per year from established stands which are not over grazed.