

Lotus spp. Research in Florida

D. D. Baltensperger and G. M. Prine

304 Newell Hall, Agronomy Department
University of Florida, Gainesville, FL 32611

Adaptation of Lotus spp. to Florida

A program has been underway at the University of Florida since 1981 to evaluate the potential of Lotus spp. for Florida. Several cultivars, breeding populations, plant introductions and selections from previous work were grown in Florida and seed was harvested from each row each year. Additional germplasm has been added over time and several populations have been lost. The material was last planted in January of 1988 on flat woods soil at Dairy Research Unit and seed was harvested in July of 1988. It appears that Lotus spp. evaluated have little potential in Florida as all entries were dead by October of 1988. A second year of evaluation is currently planned.

Evaluation of Velpar for Weed Control in Trefoil in Florida

Since trefoil is seldom, if ever, dormant in Florida we wanted to see if Velpar (3-cyclohexyl-6-(dimethylamino)-1-methyl-1,3,5-triazine-2,4-(1H,3H)-dione) could still be used for weed control in trefoil nurseries. An experiment comparing Velpar (1 lb A.I./acre sprayed May 17, 1988) with hand weeding was replicated three times for 10 genotypes. No variation in reaction to Velpar between genotypes was identified nor interaction between genotypes and Velpar treatment. Weed control was excellent with Velpar and little, if any, trefoil plant damage was noted. However, the Velpar-treated plots were completely sterile (they flowered but produced no seed) while the untreated plots had normal fertility and seed set. Spraying early in the season may prevent this problem, but before using on breeding nurseries further research is needed to avoid possible fertility problems.

Root Knot-Nematode Resistance

Preliminary evaluation indicates that all material tested is very susceptible to Meloidogyne incognita, Southern Root-knot nematode. This will present a major constraint to production of trefoil in well drained areas of Florida, southern Georgia and Alabama. Selection for resistance will be initiated this spring.