

SP  
1450

## ALLELOPATHIC POTENTIAL OF TROPICAL FORAGES : EFFECTS ON PASTURE WEEDS

A. P. S. SOUZA-FILHO (1); L. R. A. RODRIGUES (2); E. T. J. D. RODRIGUES (2)

### ABSTRACT

---

Aqueous extracts from seeds, aerial part and roots of grasses *Brachiaria humidicola*, *Brachiaria decumbens* and *Brachiaria brizantha* cv. *Marandu* and legumes forage *Calopogonium mucunoides* and *Stylosanthes guianensis* cv. *Mineiro* were prepared in a concentration of 10% (w/v), to evaluate the allelopathic potential effects on seed germination and radicle elongation of the pasture weeds: *Desmodium adscendens*, *Sida rhombifolia* and *Vernonia polyanthes*. Seed germination was monitored in ten-day periods, with daily count and elimination of seed germination. At the end of the ten-day periods the radicle was measured. The osmotic potential effects were isolated by calculation. The donor species showed allelopathic potential that varied in function of donor and receiver species. Comparatively, the forage legumes showed inhibition allelopathic potential higher than the grasses. *Brachiaria brizantha* and among grasses and *Calopogonium mucunoides* among legumes were the species that promoted the reduction more intensively on seed germination and radicle elongation of the receiver species. The aerial part of the donor species was the main source of water soluble allelopathic potential compounds. Independently of the donor species, *D. adscendens* and *S. rhombifolia* were the weeds with the greatest sensibility to allelopathic potential effects from donor species.

Key words: Aqueous extracts, seeds, aerial part, roots



(1) Eng. Agr., Dr. Embrapa/Cpatu, Trav. Dr. Enéas Pinheiro, S/N, 66095-100, Belém, Pará, Brasil  
(2) Eng. Agr., Dr., FCAV/UNESP, Rod. Carlos Tonanni, 14870-000, Jaboticabal, SP.,