

ชื่อเรื่อง

Allelopathic Effects of Vetiver Grass on Weeds

ชื่อผู้วิจัย

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Abstract

Vetiver is a tropical perennial grass, widely distributed throughout Thailand. Vetiver is cultivated for erosion control as well as a sort of barrier to prevent the invasion of weeds. Experiments were performed to investigate allelopathic effects of vetiver grass on weeds. Methanol extract of ground dried stems and roots of 3 vetiver ecotypes were tested on 10 common weed species. It was found that root and stem extracts from 3 vetiver ecotypes Ratchauri, Surat Thani and Indonesia strongly inhibited seed germination and seedling growth of *Amaranthus gracilis* Desf., *Abutilon hirtum* Sweet, *Pennisetum polystachyon* Schult., *Melochia corchorifolia* Linn. and *Ruellia tuberosa* Linn. The degree of inhibition was vetiver ecotypes, concentration of the extracts and weed species dependent. The study also suggests the possibility of developing a natural herbicide from vetiver grass which will leave hopefully little or no toxic residue harmful to the environment.