

ชื่อเรื่อง

**Vetiver for Sodic Land Reclamation**

ชื่อผู้วิจัย

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### **Abstract**

National Botanical Research Institute (then NBG), Lucknow in Uttar Pradesh was a pioneer for using vetiver (in 1956) for amelioration of sodic sites. However, it is only recently, after 40 years, that vetiver has again been opted for large scale trials under a World Bank programme in the state. High concentration of salts in the root zone of soil limit the productivity of 950 million hectares of otherwise productive land around the world. In India alone, there are 8.1 million hectares of sodic land, where productivity is limited. We have been able to grow Vetiver successfully in the soils with high levels of exchangeable sodium in the root zone with high pH (9 to 10.6) throughout the profile, poor water intake, occasional anaerobic stress due to water logging, poor availability of phosphorus that limits the growth, and low fertility.

Agrotechniques were developed for growing vetiver as hedgerow and flat beds in barren uncovered lands. The agrotechniques included developing quality planting material selected for tolerance to high pH, optimum root formation, mycorrhizal association and vigorous vegetative growth. The nursery was raised in a poly house with mist irrigation. Application of endomycorrhizae cultures (*Glomus fasciculatum*) facilitated root growth and P uptake. Such selected and tailored slips are being used for hedge under sodic land afforestation and development programme. Capacity to provide planting material in commercial quantities has been developed.