

**Experiences with the control of
Brachiaria arrecta in a wet
environment**

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Problems associated with *Brachiaria arrecta*

- Aggressive growth – grows at about 30 cm per week, branching and rooting profusely
- Allelopathic properties – inhibits the growth of sugar cane and other plants
- Blocks external and internal drainage system
- Tolerant to treatment with glyphosate and asulam

DESCRIPTION

- Common name: tanner grass
- Habitat: swampy and seasonally flooded grasslands
- Description: Stoloniferous, 100 – 150 cm high and rooting at lower nodes
- Dry and green matter: 12,880 kg/ha three months after planting
- Economic importance: significant weed species

Introduction in cane environment

- Introduced as a forage grass for oxen in 1985
- Floods in 2005 distributed fragments
- Weeding fragments grass and allow wider distribution
- Burial was not effective to control *B. arrecta*
- Pre emergent herbicide application of diuron and isoxaflutole not effective against bud eye germination
- Regeneration of chemically treated plants 2 months after treatment

Management approaches

- Weeding – done in selected areas & contributed to increased levels. Costly.
- Rouging – restricted to mostly plant canes. Very labour intensive. Costly.
- Mechanical raking – roots stubbles remained from which new plants re-infested area.
- Burning – Regrowth if not treated re-infested area.

Management approaches cont'd

- Burial – biomass of grass placed in ditch. Stems close to surface re-populated area
- Partial rehabilitation – mechanically tilling infested parts of fields and replanting with canes
- Flood fallowing - effective but limited to clay soils
- Plant competition – ineffective since grass used stalks as support to grow upwards

Management approaches cont'd

- Conventional herbicide treatment – grass die back but regenerated from nodal and basal bud eyes
- Imazapyr treatment – used in combination with glyphosate resulted in prolonged control

Discussion

- Grass is adapted to grow in a wet environment
- Initial lack of knowledge to manage a noxious and exotic weed
- Growth rate of 30 cm per week frustrated management capabilities
- Vegetative matter too large for glyphosate and asulam herbicides to be effective

Discussion cont'd

- Dense sward of grass prevented imazapyr from depositing on soil surface
- Efficient removal of rainfall water from cultivation adjusted habitat for growth and spread of grass

Conclusion

- Introduction of a wetland pasture species in a wet nutrient rich environment promotes its growth
- An integrated approach is necessary for containment and control
- Drainage is critical to reduce conditions necessary for growth of the weed

