



The Laboratory
TSL

biosciences
eastern and central africa



AfricaRice

Rice science at the service of Africa
La science rizicole au service de l'Afrique

IRRI

INTERNATIONAL RICE RESEARCH INSTITUTE



DIVISION OF AGRICULTURE
RESEARCH & EXTENSION
University of Arkansas System



Bermuda grass, *Cynodon dactylon*.

Description

- Bermuda grass is a perennial grass found in the tropical and sub-tropical regions. It occurs in both upland and lowlands ecologies.
- It produces tillers between 25-30 days and matures in 120 days.
- The culm (stalk) grows up to 25 cm tall and consist of inflorescence and the shoot
- The grass reproduces by rhizomes, stolons and seeds.
- The seeds can survive under 50 days of submergence in water.
- Rhizomes grow to 35 cm deep and can survive drought conditions for up to 7 months.
- The weed recovers easily after fire and can survive for several weeks under flooding.
- Modes of dispersion include seed contamination during harvesting, water (rhizome, stolons and seed), by wind or by grazing animals.

Distribution

- Bermuda grass is native and widespread in east Africa. It has been reported in all rice growing regions.

Damage on rice crop

- Bermuda grass is adapted and can be dispersed over long distances, hence invading many areas
- Due to their rapid nature of seedling growth and establishment, they compete effectively for light, nutrients and water
- The weeds reduce grain yield up to 30%, per unit area of rice crop.

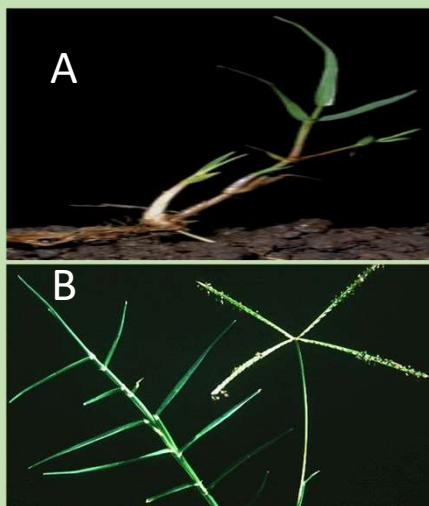


Fig 1. Bermuda grass. A. young plant showing roots (rhizome and stolons) and the culm (stalk). B. Shoot with inflorescence

Management Strategies

Cultural control:

- Use clean rice seed: avoid use of rice seeds contaminated with those of bermuda grass
- Manual/mechanical weeding to remove weeds from the rice fields as early as possible. Roguing of the weeds can help in reducing the spread.
- Early continuous flooding of up to 3 cm from planting to dough stage of rice to suffocate weed seeds.
- Use of clean (weed-free) farm machinery to prevent seed dispersal by farm implements.

Chemical control:

- Effective herbicides e.g., SATUNIL (40% thiobencarb w/w +propanil 20% w/w); applied at 2.5 L/ha.

Contact experts: Mutiga, S., (Mutiga@uark.edu), Mwongera, D., Kirigua, V., Otipa, M., Kimani, J., Mugambi, C., Ngari, B., Ochieng, V., Wasike, V., Wandera, F., Wasilwa, L., Nyamongo, D., Too, A., Nyongesa, O. (IRRI); Zhou, B. (IRRI); Mitchell, T. (OSU); Wang, G. L. (OSU); Were, V. (TSL); Ouedraogo, I. (INERA); Rotich, F (UoEm); Correll, J. C. (UARK) and Talbot, N. J. (TSL). *E-Guide for Rice Production in East Africa (2019)*

BILL & MELINDA
GATES foundation

