Barnyard grass (Eichnocola colona; Eichnocola crus-galli)

Description
- Barnyard grass is an annual tropical wild grass which grows in warm and damp areas. The genus Eichnocola consists of about 50 weed species, mainly found in the tropics, particularly in rice growing areas of Asia and Africa.
- The grass grows up to 2 m long (see figure A below).
- The inflorescence varies in color, from pale white to brown (see figure B below) and the reproduces through seed.
- Individual plants produce up to 40,000 seeds per year.
- The seed is dispersed by water, birds, insects, machinery, and animals feet and contaminated rice seed.

Distribution
- The weed is a fodder crop in several parts of the world, including Africa. It is therefore easily introduced into new areas.
- In East Africa, the grass is present in all rice growing areas.

Damage on rice crop
- The grass is ranked among the most damaging weeds of paddy rice globally.
- It acts as a weed by competing with rice for water, nutrients and light.
- When it grows in a rice field, it consumes up to 80% of the available nitrogen, hence the main crop (rice) shows symptoms of nutrient deficiency.
- Yield decline due to deficiency of important soil nutrients.

Management Strategies

1. Cultural control:
- Use of clean seed: avoid use of rice seeds contaminated with Barnyard grass seed.
- Manual/mechanical weeding to remove weeds from the rice fields as early as possible, and before they flower.
- Early flooding of up to 2.5 cm from planting to dough stage of rice to suffocate seed.
- Use of clean (weed-free) farm machinery to prevent seed dispersal by farm implements.

2. Chemical control:
- Effective herbicides such as 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., Wasiwa, L., Nyamongo, D., Too, A., Nyongesa. O. (IRRI); Zhou, B. (IRRI); Mitchell, T. (OSU); Wang, G. L. (OSU); Were, V. (TSL); Ouedraogo, I. (INERA); Rotch, F (UoEm); Correll, J. C. (UARK) and Talbot, N. J. (TSL). E-Guide for Rice Production in East Africa (2019)