REPUBLIC OF KENYA

KALRO
Kenya Agricultural & Livestock Research Organization

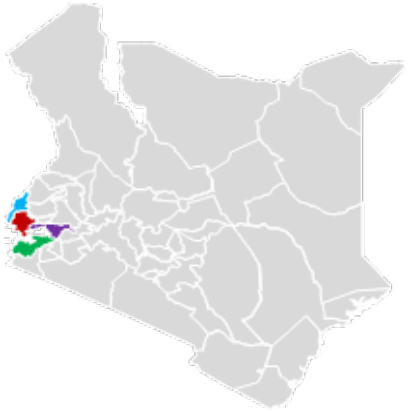
NAVCDP
National Agricultural Value Chain Development Project
Transitioning from Subsistence to Commercial Farming

Cotton Weeds and their Management

 Example of a broad leaf *weed (**wandering jew**-Tradescantia zebrina)* Source: KALRO Mwea	 Example of a sedge weed (**Nut sedge**, *Cyperus rotundus*) Source: KALRO Kibos	 Example of a grass weed (Star grass *Cynodon nlemfuensis*) Source: KALRO Kibos
Weed type	Broad leaf, grasses and sedges	

Description	Broadleaf weeds are dicots with paired cotyledons (two seed leaves that appear during germination). Their roots are fibrous and they develop cluster of blossoms or single flowers as they mature. They can be annual (mature and die within a year) or perennial (survives for more than one year). Broad leaf weed leaves have one main leaf from which many smaller veins branch. Grasses have one bladelike leaf. The sedges are grass like herbaceous perennials with fibrous roots, triangular stems and 3 ranked linear leaves.
Effect on crop	Weeds are a serious problem in cotton production and may lead to total cotton crop failure.
Identification	**Symptoms** Any plant growing in a cotton field which has not been deliberately planted.
Conditions prevailing that contribute to success	Weeds are good at surviving and regenerate very quickly. They produce a lot of seeds, which have long viability. Poor land management practices promote proliferation of weeds. Winds, farm tools and water help in dispersal of weed seeds. Sedges spread by nuts and rhizomes and poor land management practices.
Conditions prevailing that contribute to failure	Depending on the type of weed, un-favorable conditions such as dry weather, high or low temperatures, lack of nutrients and excess or shortage of water may not favor multiplication and spread of weeds.

Management	The following management options are recommended: **Cultural practices** 1. **Cultural control**: cover cropping, proper land preparation, crop rotation and field sanitation (maintaining clean field borders) help prevent the spread of weeds. 2. **Mechanical control**: Hand-pulling, machine weeding and hoeing can be effective, especially if done before the weed sets seed. 3. **Chemical control**: Pre-emergence herbicides such as pedimethaline applied on the next day after planting cotton on moist ground will prevent germination of weeds. Examples of herbicides with pedimethaline includes tata paninda and stomp. To control weeds which have already germinated apply post emergence herbicide directed application to the weed 4. For sedge weeds, combining herbicides with tillage operations during a dry season can desiccate the tubers and rhizomes effectively. **Integrated weed management**: Combining any of above different methods is recommended **Note:** *Agro-chemicals should be used in consultation with professional practitioners and considering existing cautionary/safety measures, particularly the manufacturer's instructions*

Geographic Coverage	Weeds are prevalent in all cotton growing counties Busia, Siaya, Homabay and Kisumu.
Geographic Coverage The project counties for cotton (Busia, Siaya, Homabay and Kisumu)	
Further reading	- Cotton growing handbook

Disclaimer: The content of this publication is for general information to cotton farmers and technical staff only and no person should act, or fail to act on the basis of the information herein without professional advice from crop health experts affiliated to Kenya Agricultural and Livestock Research Organization (KALRO).	This factsheet was produced by KALRO as part of commercialization of cotton with support of National Agriculture Value Chain Development Project (NAVCDP)

Contacts:

Director General

Kenya Agricultural & Livestock Research Organization, Kaptagat Road, Loresho Nairobi Kenya

P.O. Box 57811, City Square, Nairobi, 00200, Kenya

Email: info@kalro.org

Safaricom: +254 722206986/722206988

Airtel: +254 733-333-223/4/733333299/4

KALRO CALL CENTRE: 0111010100

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Kenya Agricultural & Livestock Research Organization

Compiled by: NgariB., Macharia JMK., Okiyo T,, Musila R,, and Mungai A.

Editors: Nyabundi K W., Mukundi K., Maina F,W., Maina P., Wanyama H.N., Kibunyi N.K., Wasilwa L.A., and Kirigua V.

Design: Odipo S.

For more information

The Centre Director

KALRO – Industrial Crops Research Institute – Mwea,

P.O. Box 298-10300, Kerugoya, Kenya

Tel: 020-2028216/17

Email: kalro.mwea@kalro.org

The Centre Director

KALRO – Horticulture Research Institute – Kibos,

P.O.Box 1490 – 40100, Kisumu

Email: kalro.kibos@kalro.org

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