





# SORGHUM TECHNOLOGIES FOR THE DRYLANDS

Kisilu R., Kathuli P., Karanja D. R. and Mutisya D. L.



<p><b>KARI Mtama-1</b>  <b>Colour:</b> White  <b>Yield:</b> 17 bags (90 kg) per acre  <b>Days to flowering:</b> 58-65  <b>Maturity:</b> 3.5-4 months</p>		<p><b>Seredo</b>  <b>Colour:</b> Chalky white  <b>Yield:</b> 14 bags (90 kg) per acre  <b>Days to flowering:</b> 45-52  <b>Maturity:</b> 3 months</p>	
<p><b>Gadam</b>  <b>Colour:</b> Chalky white  <b>Yield:</b> 14 bags (90 kg) per acre  <b>Days to flowering:</b> 45-52  <b>Maturity:</b> 3 months</p>		<p><b>Serena</b>  <b>Colour:</b> Brown  <b>Yield:</b> 9-10 bags (90 kg) per acre  <b>Days to flowering:</b> 65-77  <b>Maturity:</b> 3-4 months</p>	

## Areas suitable for cultivation

**Zones:** LM 4 (Kambi ya Mawe, Wote, Ithookwe, Nguutani-Mwingi, Katumani-Machakos, Maliku-Kitui, LM 5 (Kibwezi, Waita-Mwingi, LM 6 (Masongaleni, Kiboko, Kambu).

## Planting

- **Seed rate:** 3-4 kg per acre
- **Spacing sole crop:** dry areas 90×20 cm, wet areas: 60×20 cm
- **Spacing intercrop:** 120×20 cm (single alternate row of sorghum to row of cowpea - 60 cm, sorghum to sorghum - 120 cm). The space between plants can be achieved through thinning.

## Soil fertility

- 50 kg per acre DAP or 20:20:0, 17:17:17, 23:23:0 at planting
- 50 kg per acre CAN topdressing at 5-6<sup>th</sup> leaf stage

## Weeding

- 1<sup>st</sup> weeding: 1-2<sup>nd</sup> week after germination
- 2<sup>nd</sup> weeding: when weeds are visible

## Thinning

- 2<sup>nd</sup> week after germination when soil is moist
- Thin to a spacing of 20 cm between plants

## Pests

The major pests in arid and semi-arid lands are shoot fly, stem borers aphids and bollworms



*Dead hearts caused by shoot fly damage*



*Stem borer larvae*



*Aphid*



*African bollworm*

**Control:** Spray with insecticides during the 1<sup>st</sup> week after germination and late vegetative stage.

## Disease

The most important disease is Covered Kernel Smut (CKS).



*Covered kernel smut*

### **Control**

Plant certified seed, uproot and burn infected plants, crop rotation.

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