How to control *Alectra vogelii* in cowpea

Karanja, J. and Nguluu, S., KARI-Katumani

*Alectra*-infested cowpea
Why control *Alectra* weed?

- It reduces cowpea yields by more than 50% by reducing number of pods
- Reduces the number of edible green leaves

Conditions that favour severe weed infestation in the field?

- Overused, depleted and infertile soil
- Monocropping and planting of cowpea on the same area for a long time
- Cowpea seeds from the previous season that are mixed with *Alectra* seeds

How are *Alectra* seeds spread?

- Contaminated cowpea seeds is the most common spread mechanism
- By wind
- Run-off water spreads seeds to other uninfested fields
- Farmers may spread seeds through tools and mud-boots
- Ploughing oxen animals spread the weed as they pass through from a contaminated field to un-contaminated fields
How can the spread be stopped?

Cleaning seeds

- During harvest take care that the crop does not come in contact with *Alectra* or infested soil
- Do not drop cowpea pods or seeds on infested soil or thresh them in infested field

If cowpea seeds come from an unknown source, for example markets, wash them to avoid spreading *Alectra*. Good seeds settle at the bottom of the pot. Light particles including *Alectra* seeds, dirt and other weed seeds float. The floating seed is poured away.

Since *Alectra* seeds remain viable in the ground for 5-20 years waiting for cowpea, ensure that uninfested field is protected by—

- Washing mud off tools, feet or shoes after work
- Not grazing or tethering animals in infested fields

Control of *Alectra* weed

Application of farmyard manure

Application of farmyard manure improves soil fertility and the crop performs better. Farmyard manure increases the resistance of cowpea and suppresses germination of *Alectra*.
For best results with small quantities of manure, apply a handful of well decomposed manure directly into the planting hole. It should be well mixed with soil, and then plant cowpea seed and cover. This technique suppresses Alectra growth, allows seedling to grow fast and escape Alectra or at least avoid more severe effects of Alectra weed.

**Weeding and hand pulling**

There is no specific herbicide available to combat Alectra. Spread of Alectra can be stopped by uprooting the weed. This is more effective than weeding. It should be carried out several times, especially in newly infested fields to prevent the build-up of Alectra seed. The best time to uproot Alectra is before flowering.

**Burying of flowering Alectra**

If Alectra is uprooted after flowering, it must be buried in a pit or burnt at the border of the field immediately so that the flowers and seeds are destroyed.

An integrated approach using all the methods of weeding, hand-pulling, burying, burning and application of farmyard manure repeated for several years can control the weed effectively.