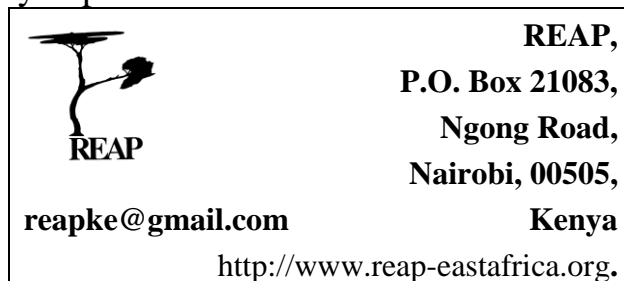


II. *If there is much striga in a field:* -

1. Stop growing sorghum or maize on that land for at least five years.
2. Plant the area with a different type of crop like cassava, sweet potato, groundnuts, sunflower, or pigeon pea. Sesame or beans can be grown on their own without sorghum. Otherwise leave the land fallow. A woodlot of trees for firewood or timber may also be planted to use the land.
3. A few striga plants may germinate beside some wild weed grasses even in another crop. If you see these always pull them out and burn them so that they do not set seed.

Where there is understanding of the problem and the will to do something, an effective way of reducing striga is to plant a 'trap crop' of Sudan grass or susceptible sorghum. The seeds are sown thickly and then dug or ploughed in after two months. The striga germinates in large numbers by the host plant then dies when the host is killed. The crop that is dug in also helps to fertilise the land. This method is effective but may not be easy to persuade farmers to do.

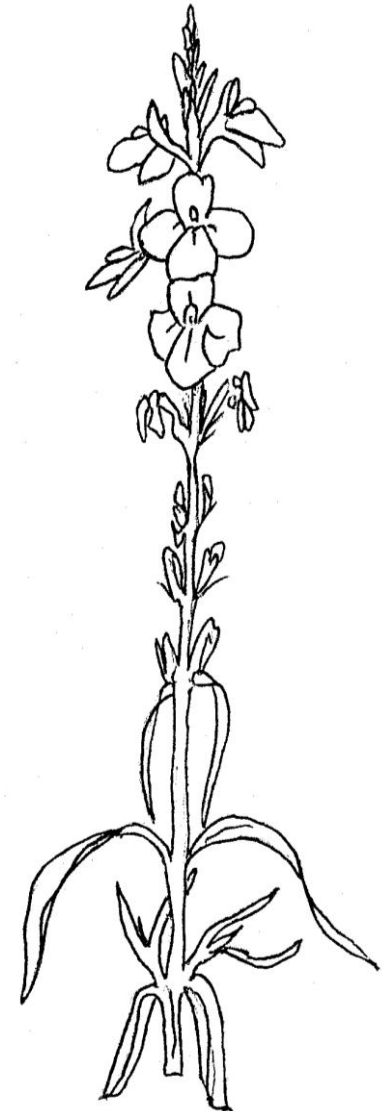


STRIGA

Striga is an unusual weed in that it is **parasitic** on sorghum and maize.

There are two common kinds of striga - the larger kind with pink flowers (*Striga hermotheca*), and the small kind with bright red flowers (*Striga asiatica*). Both of them behave in much the same way so can be treated together. If a sorghum plant with striga near it is pulled up carefully, the roots of the sorghum and the striga can be seen to join. This shows that striga is a **parasite** that gets its food directly from the sorghum plant in the same way that aphids suck the sap of trees, or lice suck blood from animals.

Striga is difficult to control once it gets bad, but understanding its life cycle can help prevent it getting bad in areas which are as yet uninfected. For this reason it is important to understand the life cycle.



Life Cycle. Striga has very small **seeds**, and many thousands of seeds may be produced by one plant. These seeds can stay in the soil for many years and do not germinate until a root of sorghum or maize grows near. When a root of sorghum grows near the seed 'smells' it and is stimulated to **germinate**. If there are no suitable roots nearby the striga seed stays as it is. A seed can stay in the soil 'waiting' for 7-8 years.

Once the seed has germinated it sends out a root, which actually **enters the root** of the sorghum. It can suck the sap straight from the sorghum plant. It can stay under the soil without photosynthesis and still grow. The sorghum plant then looks as if it is suffering from drought, even when there is enough rain, because the striga is taking much of the water and nutrients. Some of the striga plants then grow above the ground and have leaves and photosynthesise, although they still take much of their energy from the sorghum.

The shoots that come above the ground will then **flower** and produces seeds, which fall on the ground and wait for more sorghum to be planted. Once a plant has started to flower it can still produce fully developed seeds even if uprooted, so uprooted plants must not be left in the field to dry.

Although striga is normally most destructive to sorghum it can also infect maize and some wild grasses. It does not infect crops like groundnuts, beans, sesame, cassava or sweet potatoes. Although striga can always infect sorghum and

maize it cannot defeat strong plants, so the problem is worse when the plants are weak due to low fertility or drought. Striga is particularly a problem of exhausted land where sorghum has been grown for many years. Maintaining fertility is a good control measure.

Intercropping is also a helpful way of reducing striga. Cowpeas, which are often grown with sorghum, in particular help to reduce the growth and seed production of striga.

CONTROL OF STRIGA.

From understanding the life cycle of *Striga* the following methods of control can be recommended:

I. If there is only a little striga in a field: -

1. Pull out all the striga plants as soon as you see them. Do not let them seed. Pull carefully to avoid breaking the Striga stem. (If the stem is broken the plant may spread even more) Start looking for flowers six weeks after planting sorghum.

2. **Burn** all the striga plants that have been pulled, because if they are left on the ground they will set seed. Do **not** just pile them with other weeds.

3. If one small part of a field has striga, mark it and do not use that area, and the area within about 3 yards of it, for sorghum or maize the next few years. By looking out for such small areas, striga can be prevented from spreading, and the rest of the field can be protected.