



**TOBACCO RESEARCH BOARD**

KUTSAGA

TELEPHONE: (263 - 24) 2575 289  
TELEFAX: (263 - 24) 2575 288  
TELEGRAMS: "TOBRES"  
E-MAIL: tobres@kutsaga.co.zw  
[www.kutsaga.co.zw](http://www.kutsaga.co.zw)

P.O. BOX 1909  
HARARE  
ZIMBABWE

*Please address all  
correspondence to  
the General Manager*

03 April 2019

To: All Tobacco Growers  
Contractors  
Merchants  
Agrochemical Companies

Dear Grower

**RE: PARASITIC WEED *STRIGA GESNERIOIDES* ON TOBACCO**

In the past few months, the Tobacco Research Board has received several reports of the witch weed (*Striga gesnerioides*) infesting tobacco in Beatrice. Previous reports have been received from areas such as Chegutu, Selous, Norton and Mvuma.

**Facts on *Striga gesnerioides***

This is an obligate parasitic weed that requires the existence of a host plant such as tobacco, cowpeas and other legumes to survive (Figure 1). The parasite seeds are tiny (smaller than tobacco seeds) and are produced in large numbers (~500 000 seeds per *Striga gesnerioides* weed plant). These seeds are the only source of new infestations. Seed dispersal is either through flowing water or soil trapped in tillage equipment or by the feet and hooves in human and livestock movements respectively.

The symptoms of infection on tobacco plants are the appearance of water-soaked leaf lesions, leaf chlorosis and necrosis, potassium firing-like symptoms and sometimes death of the infected plants before the weed emerges from the ground. The weed attaches to the roots of the tobacco plants and develops underground. It appears above the ground only for flowering and seed production purposes while still attached to the tobacco roots underground (Figure 2).



**TOBACCO RESEARCH BOARD**

KUTSAGA

TELEPHONE: (263 - 24) 2575 289  
TELEFAX: (263 - 24) 2575 288  
TELEGRAMS: "TOBRES"  
E-MAIL: tobres@kutsaga.co.zw  
[www.kutsaga.co.zw](http://www.kutsaga.co.zw)

P.O. BOX 1909  
HARARE  
ZIMBABWE

*Please address all  
correspondence to  
the General Manager*



**Figure 1: *Striga* infestation on tobacco roots (left); and *Striga* plant detached from tobacco roots (right).**



**Figure 2: Emerged and flowering *Striga* plants parasitizing tobacco; and parasitized tobacco plants with stunted growth and necrotic symptoms.**



**TOBACCO RESEARCH BOARD**

KUTSAGA

TELEPHONE: (263 - 24) 2575 289  
TELEFAX: (263 - 24) 2575 288  
TELEGRAMS: "TOBRES"  
E-MAIL: tobres@kutsaga.co.zw  
[www.kutsaga.co.zw](http://www.kutsaga.co.zw)

P.O. BOX 1909  
HARARE  
ZIMBABWE

*Please address all  
correspondence to  
the General Manager*

## **Management of Parasitic Weeds**

Growers are advised to be on the lookout for these noxious weeds as they are potentially devastating and can result in 100% yield loss under severe infestations. The research work done by the TRB has revealed that there is no single weed control method that is both effective and economically feasible for *Striga* control. There is, therefore, a need for an integrated approach to parasitic weed management.

Control options include:

- Reduction of *Striga* weed seed bank in infected soils by planting a trap crop that stimulates the weed seeds to germinate but does not allow the attachment of the parasitic weed seedlings to the host roots, thereby starving the parasites to death.
- Alternatively, to reduce potential sources of future infestation, the weeds can be destroyed mechanically before they flower. Movement of flowering plants should be minimized within a field to avoid spreading *Striga* weed seeds within a field. Spot weed destruction can also be done using a non-selective herbicide such as glyphosate as a direct spray onto the weeds, avoiding the host crop.
- It has further been established that poor soil fertility leads to increased infestation, and thus optimum fertilization of the crop is critical to mitigate *Striga* problems in tobacco crops.

Growers are advised that the occurrence of these weeds should be reported to the TRB Crop Productivity Services Division on telephone # (024) 2575 289/94 or toll-free, 0800-4511 or Email: tobres@kutsaga.co.zw or visit Kutsaga Research Station or the Plant Quarantine Services.



**TOBACCO RESEARCH BOARD**

KUTSAGA

TELEPHONE: (263 - 24) 2575 289  
TELEFAX: (263 - 24) 2575 288  
TELEGRAMS: "TOBRES"  
E-MAIL: tobres@kutsaga.co.zw  
[www.kutsaga.co.zw](http://www.kutsaga.co.zw)

P.O. BOX 1909  
HARARE  
ZIMBABWE

*Please address all  
correspondence to  
the General Manager*

Yours faithfully,

C. Mukungurutse

**Agronomist, Crop Productivity Services Division**