

Purple witchweed in Sorghum

Striga hermonthica



Purple witchweed infestation (USDA APHIS PPQ - Oxford, North Carolina, USDA APHIS PPQ, Bugwood.org)



Purple witchweed on maize (USDA APHIS PPQ - Oxford, North Carolina, USDA APHIS PPQ, Bugwood.org)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> • Use certified seed to reduce chances of field contamination • Seeds are transported by water - Prevent runoff water from infested land to avoid seed introduction • Seeds are spread by vehicles, animals, tools and workers - do not graze livestock in affected area, clean tools after work to avoid spread • Plant resistant/tolerant Sorghum varieties e.g. Serena, Seredo, Serenex, Yatta landraces (MY146, MY 183, MY 95-Z) or ICSV 1112BFNamonimbri and 1S9830 • Apply well composted organic fertilizers and irrigate during dry periods so that plants don't get stressed • Practice crop rotation with non-host crops such as legumes, cotton, sweet potatoes, cassava among others and/or practice agroforestry (Sesbania sesban) techniques which provide leaves that mulch 	<ul style="list-style-type: none"> • Additional relevant crops: all cereal crops including sugar cane, Napier grass - fodder crop • Annual, broadleaved, parasitic herb (30-100cm high); erect, sometimes creeping. Always associated with host in the grass family. Stems are four-sided, branched or unbranched with rough hairs and opposite leaves. Leaves green (2-8cm long), narrow, sparsely covered in rough hairs. Flowers bright pink, rose-red and/or white (1cm long), arranged in spikes (6-10 flowers per spike) • Look for yellowish blotches in crop foliage about 1 cm long by 0.5 cm wide, even if the weed has not emerged. Uprooting may confirm the presence of young parasite seedlings on the root • Look for stunted crop growth, curling of leaves and drought stress appearance • Check for stunting and wilting, at later stages look for weeds with purple flowers. Take direct action after one striga plant is seen 	<ul style="list-style-type: none"> • Striga infestations can be controlled by continuous uprooting and burning before flowering and seed setting to reduce seed bank • Growing trap-crops (those that stimulate suicidal germination but do not host the parasite) such as cotton, groundnuts, cowpeas, soya beans, Desmodium • Improved soil fertility is a vital key to long-term control, whether by organic, inorganic or green manuring • Avoid seed set by uprooting, as seeds stay viable for up to 25 years and seed production is prolific • Hoe or hand weed regularly starting two weeks after germination then weed again six to eight weeks thereafter 	<ul style="list-style-type: none"> • Use of chemical herbicides may lead to the development of herbicide resistance. • When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval. • Apply 2,4-D on emerged weed to reduce Striga seed bank for the coming seasons at a rate of 1 L/ha 	<ul style="list-style-type: none"> • WHO Class II (Moderately hazardous)

Kenya

CREATED/UPDATED: February 2016

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