

# Purple witchweed in Upland Rice

*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"> <li>• Use certified seed to reduce chances of field contamination</li> <li>• Seeds are transported by water - Prevent runoff water from infested land to prevent seed introduction</li> <li>• Seeds are spread by animals - do not allow livestock into an affected area to avoid spread</li> <li>• Seeds travel by vehicles, human beings, animals and on machinery - clean equipment after work in infested areas</li> <li>• Obtain striga tolerant varieties from the research centre KALRO-Mwea</li> <li>• Practice crop rotation with non-host crops such as legumes, cotton, sweet potatoes, cassava among others and/or practice agroforestry (<i>Sesbania sesban</i>) techniques which provide leaves that mulch.</li> </ul>	<ul style="list-style-type: none"> <li>• 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)</li> <li>• 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</li> <li>• Look for stunted crop growth</li> </ul>	<ul style="list-style-type: none"> <li>• Light infestations can usually be controlled by hand pulling or hoeing before seed is produced</li> <li>• Growing trap-crops (those that stimulate suicidal germination but do not host the parasite) such as cotton, groundnuts, cowpeas, soya beans, Desmodium</li> <li>• Improved soil fertility is a vital key to long-term control, whether by organic, inorganic or green manuring</li> <li>• Avoid seed set, as seeds stay viable for up to 25 years</li> <li>• Uproot Striga before flowering. Striga is highly prolific, one capsule producing over 500 seeds</li> </ul>	<ul style="list-style-type: none"> <li>• Use of chemical herbicides may lead to the development of herbicide resistance.</li> <li>• Improved soil fertility is a vital key to long-term control, whether by organic, inorganic or green manuring</li> <li>• 2,4-D may be used to kill emerged <i>S. hermonthica</i> or to prevent it from maturing and setting seed in rice monocrop (2L/ha)</li> </ul>	<ul style="list-style-type: none"> <li>• WHO Class II (Moderately hazardous)</li> </ul>



## Kenya

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AUTHOR(S): W O Kouko, B N Ita, V N Momanyi (KALRO)

EDITED BY: Plantwise