



# Parthenium Weed in Maize

*Parthenium hysterophorus* Parthenium

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
 <p>Parthenium weed in flower. (Photo by Arne Witt, CABI)</p>	<ul style="list-style-type: none"> <li>Plant certified Maize seed to prevent introduction of weed seeds</li> <li>Avoid grazing animals in affected areas to prevent spread of the weed and poisoning of the animals</li> <li>Use clean machines and clean water source for irrigation to prevent weed seed spread</li> </ul>	<ul style="list-style-type: none"> <li>Annual erect broadleaved herb, 0.5-1.5 m high. Leaves pale green and covered with short stiff hairs. Rosette and lower stem leaves deeply divided and large; upper stem leaves are shorter and less divided. White small compact flower heads (about 5 mm across) at the tips of branches, each flowerhead has 5 distinctive "petals".</li> </ul>	<ul style="list-style-type: none"> <li>Continous removal of Parthenium weeds using hand gloves, long-sleeved clothed and a mask to avoid contact with skin and respiratory tract since it causes allergic reactions</li> <li>Deeply bury the weed (up to 60 cm) to prevent future additional weed seeds into the soil and stop seed spread</li> <li>Conduct continous mechanical/manual weed removal when infestation even if there is one plant/acre</li> </ul>	<ul style="list-style-type: none"> <li>Use of chemical herbicides may lead to the development of herbicide resistance</li> </ul>	<ul style="list-style-type: none"> <li>Always consult with Pest Control Products Board (PCPB) for registered list of availed herbicides</li> </ul>
 <p>Lower stem leaves are deeply divided and large. (Photo by Arne Witt, CABI)</p>	<ul style="list-style-type: none"> <li>Prevent runoff water from infested land into clean fields by making cutoff drains</li> <li>Maintain a regular weeding regime in crops (general crop sanitation)</li> <li>Use Basal P and Top dress with nitrogen to boost maize health</li> <li>Use properly decomposed manure to avoid introduction of weeds</li> <li>Grow leguminous cover crops with maize to cover the soil</li> <li>Consider pre-emergence chemical control if there is concern that seed infestation has occurred or if seedlings are present</li> <li>Rotation with root, tuber and leguminous crops</li> </ul>	<ul style="list-style-type: none"> <li>Parthenium is prevalent along Kenyan roads, pasture fields and arable land</li> <li>Regularly check edges of waterbodies, grazing places and vehicle tracks for rosettes</li> <li>Check for rosettes after periods of rain as seeds depend on high moisture to germinate</li> <li>Check fields for infestation and consider removal of all germinated Parthenium weeds (even if it is one) per acre</li> </ul>	<ul style="list-style-type: none"> <li>Uproot plants or remove flowering stems before flowering to prevent seed set</li> <li>Avoid removal only by burning, mowing, slashing and ploughing as this may promote spread</li> <li>Use and distribute established biocontrol agents such as <i>Zygomma bicolorata</i></li> <li>Grow competitors, such as <i>Cassia</i> spp. (e.g. <i>C. tora</i>, <i>C. uniflora</i>, <i>C. occidentalis</i>) and <i>Tagetes</i> spp. (e.g. <i>T. erecta</i>)</li> </ul>	<ul style="list-style-type: none"> <li>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</li> <li>Use 2, 4- D amine salt post emergence herbicides to control the weed in maize monocrop applied once at 3 - 4 weed leaf stage. If rains continues and more weeds grow then a second application is necessary (2l/ha)</li> <li>Use Linuron for pre emergence control of the weed (1.5kg/ha)</li> </ul>	<ul style="list-style-type: none"> <li>2,4-D: WHO class II (Moderately hazardous)</li> <li>Linuron: WHO Class III (Slightly hazardous)</li> </ul>



## Kenya

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