

Blackjack in cotton

Bidens pilosa Chisoso



Flowers have white petals and yellow centres. © Arne Witt, CABI



Leaves have 3-5 leaflets each, tapering towards the end. © Arne Witt, CABI



Bidens pilosa, flowers and fruit. © Chris Parker

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> • Use certified delinted cotton seed to reduce the chance of contamination • Seeds are spread by animals - do not allow livestock into an affected area to avoid spread • Seeds are spread on clothes and shoes - remove seeds when leaving an infested area • Species is spread by water - use only water from sources free of the weed • Species is spread by water - avoid runoff from surrounding infested fields • Prevent spread of blackjack by slashing or mowing before it flowers • The species is spread by wind - limit seed set in surrounding populations 	<ul style="list-style-type: none"> • Annual erect broadleaved weed (up to 1m high) with green composed leaves and a strong taproot. Flowers white with yellow centre and 1cm long black seeds with 2-4 yellowish awns at one end • Regularly (fortnightly) check surroundings for presence of weed along water bodies, pathways, fields • Check fields for infestation and consider direct control as soon as weeds appear • Check for flowering and seed development to prevent seed set, spread and build up of seed bank 	<ul style="list-style-type: none"> • Weed or hand pull plants prior to onset of flowering, ensuring the taproot is severed well below the crown to prevent regrowth 	<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. • If there is a history of the weed use Acetochlor (Acetochlor 900EC, Sprint 900EC) it is a pre-emergence herbicide. Apply at a rate of 7.5 ml in a 15 litre tank immediately after sowing • Glyphosate (Round-Up 360, Glyphosate 360 SL, Erase 360 SC) is a post-emergence herbicide applied once the weed has germinated and before maize is sown. Use at a rate of 23 ml in a 15 litre tank 	<ul style="list-style-type: none"> • WHO class III (slightly hazardous) • WHO class III (slightly hazardous)



Malawi

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