

Article title	Multi-site, multi-season field tests demonstrate that herbicide seed-coating herbicide-resistance maize controls <i>Striga</i> spp. and increases yields in several African countries
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Abstract	Plant parasitic <i>Striga</i> (witchweed) species have not been controlled in susceptible host crops prior to exerting damage. High dose, localized herbicide levels can be applied on or near maize seed bearing acetolactate synthase (ALS) target-site resistance. Such seed coating was cost-effective in preventing damage from parasitic witchweeds <i>Striga hermonthica</i> and <i>S. asiatica</i> in Kenya, Malawi, Tanzania, and Zimbabwe. Imazapyr at 30–45 g ha <sup>-1</sup> and pyriithiobac at 11–21 g ha <sup>-1</sup> were used at 3 experiment stations and in 93 farmers' fields over six seasons to further evaluate the effectiveness of this technology. Seed coating with imazapyr and pyriithiobac gave season-long <i>Striga</i> control in most cases resulting in a 3–4-fold increased maize yield when <i>Striga</i> density was high. Once herbicide resistant maize has been produced using locally adapted varieties, this technology should greatly benefit small-scale farmers in sub-Sahara Africa.
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