

The ‘push–pull’ technology is a novel pest management strategy developed for control of stemborers and striga weed, *Striga hermonthica*, in maize-based farming systems in eastern Africa, where maize is intercropped with desmodium, a forage legume, and Napier grass is planted as a border crop. Desmodium repels stemborer moths while Napier grass attracts them. Desmodium also suppresses the parasitic striga weed through a series of mechanisms ranging from shading to allelopathy through the root system. The technology is currently being disseminated among smallholder farmers in eastern Africa and adoption rates are rising. Our on-station studies have reported efficacy of this technology against the two pests resulting in increased grain yields. The current study was conducted between 2003 and 2006 in 14 districts in western Kenya to assess effectiveness of the technology under farmers’ own conditions. Twenty farmers from each district, who had adopted the technology, were randomly selected for the study. Each farmer had a set of two plots, a ‘push–pull’ and a maize monocrop. Seasonal data were collected on percentage of maize plants damaged by stemborers, the number of emerged striga, plant height and grain yields. Similarly, farmers’ perceptions on the benefits of the technology were assessed using a structured questionnaire. Stemborer damage and striga counts to maize plants were significantly lower in the ‘push–pull’ plots than in the maize monocrop plots. Similarly, maize plant height and grain yields were significantly higher in the former. Farmers rated the

‘push–pull’ technology significantly superior in having reduced stemborers and striga infestation rates and increased soil fertility and grain yields. These results demonstrate that the technology is equally effective in controlling both pests with concomitant yield increases under farmers’ conditions in the districts studied.