

# The Speargrass (*Imperata cylindrica* (L) Beauv.) Menace in Ghana: Incidence, Farmer Perceptions and Control Practices in the Forest and Forest-Savanna Transition Agro-ecological Zones of Ghana

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## Abstract

Surveys to determine farmers' practices, perceptions and the incidence of speargrass were conducted in the forest and forest-savanna transition zones of Ghana in 1996 and 2000. Mean farm size was 1.2 ha, fallow and cropping length was 4.7 and 4.5 years, respectively, with a mean cropping intensity factor (CIF) of 49%. Speargrass had been present in the area for over 40 years and was perceived as the most noxious weed. Eighty-six percent of fields that relied on slash-burn method of land preparation had severe speargrass infestation. Infestations > 50% cover, mean density of 33 plants m<sup>-2</sup> and shoot height range of 15–300 cm were observed on 60% of the fields. Fifty-one percent of farmers reported of inadequate level of control with current control practices. Glyphosate was applied on fields with > 50% speargrass cover. Speargrass becomes a problem after 3 years continuous cropping from fallow and, under severe infestation, most farmers abandon fields to natural fallow. A dense regrowth of *Chromolaena odorata* is indicative of a speargrass-suppressed field. Follow-up weed control could be 3-6 times/season depending on initial land preparation, type of crop and/or level of infestation. Cost of weed control was 20–60% higher on speargrass-infested field (\$71/weeding/ha) than on other fields, and weeding may take 20–25 man-days/ha. Farmers perceived average yield losses of 30–80% ha<sup>-1</sup> due to speargrass interference, implying a national average crop loss ha<sup>-1</sup> of \$31–\$84, \$155–\$414 and \$272–\$727 for maize, cassava and yam systems, respectively. Reductions in food quality due to the piercing nature of the rhizomes was also paramount.