

Occurrence of Weeds and Their Management Effects on Groundnuts (*Arachis hypogaea* L.) in the Savannah Ecology of Ghana.

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Groundnut (*Arachis hypogaea* L.) is the most widely legume cultivated for food and cash in the three Northern regions of Ghana, in the Savannah Ecology. Though about 70 – 80% of groundnuts of the country is produced in this region, weeds constitute an increasing menace and their management have been the primary husbandry of farmers. A three-year survey was carried out in farmer's farms between 2003 and 2005 to: (1) document the prevalent weeds species and their dominance, (2) determine the current cropping system and weed management practices and (3) assess the response of Groundnut to management practices. The survey showed that groundnut cropping systems were dominated by broadleaves followed by grasses and then sedges. Grasses and sedges were most competitive and difficult to manage by farmers.

The most troublesome weeds in the groundnut cropping systems were *Commelina* spp., *Vernonia galamensis*, *Mimosa pigra*, *Axonopus compressus*, *Digitaria horizontalis*, *Paspalum* spp., *Pennisetum* spp., *Rottboellia cochinchinensis*, *Andropogon* spp., *Imperata cylindrica*, *Cyperus rotundus*, and *Striga hermonthica*. *Striga hermonthica* was prevalent in the system due to inter-cropping of groundnuts with millet, sorghum and sometimes maize. Farms were hand-weeded twice at 2 – 3 and 5 – 6 weeks after sowing (WAS), but sometimes once at 3 – 5 WAS. Weed management was poor, resulting in high weed biomass production at harvest in the range 50 – 750 g/m² and (2) groundnut haulm production varied (55 – 250 g/m²) with improved varieties performing better than local cultivars. Pod yield production was low in the range of 20 – 170 g/m². The implications of the study for research and increased groundnut production in the region were discussed.