

Review Article

Integrated pest management for cowpea–cereal cropping systems in the West African savannah

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Abstract. Cowpea *Vigna unguiculata* (L.) Walp. is an important component in mixed cropping systems that are appropriate to the agro-ecological characteristics of the West African savannah. However, the contribution of cowpea to overall productivity of the systems is reduced by a number of insect pest species. Compared with the humid zone, important features of insect pests in the savannah region include: (i) a tendency towards higher pest incidence during the limited growing period, (ii) a more advantageous situation for generalist and migratory pests in the scanty and unstable vegetation and (iii) lower mortality inflicted by parasitoids on the pest populations. The key pests of cowpea of importance in the West African savannah are the legume flower thrips *Megalurothrips sjostedti* (Trybom) (Thysanoptera: Thripidae), the legume pod borer *Maruca vitrata* (Fabricius) (Lepidoptera: Crambidae) and the pod-sucking bug *Clavigralla tomentosicollis* Stål (Hemiptera: Coreidae). To control these insects in a sustainable manner, pest management practices such as the use of resistant cowpea varieties, mixed cropping systems, botanical and reduced risk insecticides, and biological control assisted by pest monitoring have been developed. Nevertheless, no single component is effective when used alone, but specific combinations can work synergistically. This paper highlights recent progress in integrated pest management strategies for cowpea in cereal-based cropping systems in the West African savannah.

Key words: cowpea, IPM, West Africa, *Megalurothrips sjostedti*, *Maruca vitrata*, *Clavigralla tomentosicollis*

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