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Pesticidal Potential of Selected Aqueous Plant Extracts for the Control of Webber Caterpillar (Hymenis Recurvalis Fab.) Infestation on Amaranthus in Kashere,Gombe State, Nigeria

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Abstract : The amaranth leaf webber caterpillar (Hymenia recurvalis Fab.) was found to cause serious leaf damage by perforation and reduce amaranth growth and yield. It is a major limiting factor in amaranth production. Field experiments were conducted during 2022 and 2023 with the aim of assessing insecticidal potential of five selected plant leaf extracts, namely Moringa oleifera, Azadiractha indica A. Juss , Balanites aegyptiaca Del., Momordica balsamina and Hyptis suaveolens using Lambda.cyhalothrin 2.5 EC, a synthetic insecticide as a check. The experiment was conducted in a randomized complete block design (RCBD) replicated three times. Results showed that A.indica and H.suaveolous were more effective in reducing H .recurvalis population, leaf perforation, leaf damaged and improved amaranth plant growth and yield. This was closely followed by B. aegyptiaca and M. balsamina while M. oleifera had the lowest effect on the use of pest population and damage. Lambda.cyhalothrin, a synthetic insecticide, was found to be superior to the five plant extracts. The result showed that A. indica and H. suaveolens improved the growth and yield of amaranth during the study period. The study, therefore, recommended the two plant extracts for the control of leaf webber caterpillar (H. recurvalis) to limited resource farmers and as a good alternative to Lambda.cyhalothrin 2.5EC in the study area.

Keywords : Amaranth, leaf Webber plant extracts, Lambda cyhalothrin, rainfed
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