C2085. INSECT SPECIES ASSOCIATED WITH AFRICAN INDIGENOUS LEAFY VEGETABLES (Amaranthus hybridus and Solanum scabrum) IN TAITA DISTRICT, KENYA

Olubayo, F., Mnyambo, J., Shibairo, S., Mwang'ombe, A. and Lenihan, E.

University of Nairobi, Department of Plant Science and Crop Protection, University of Cork, Ireland

Corresponding author: fmmogi@yahoo.com

Abstract

The African Indigenous Leafy Vegetables (AILV's) form a substantial proportion of the diets of most Kenyans. They are known to have a good yield potential and ability to address food insecurity and nutritional problems among the rural populations. However, the production of AILV's has been faced with constraints, among them insect pests infestation which cause considerable yield losses. To establish the range of insect pests constraining production of AILV's at the Kenyan Coast, a study was conducted in Taita district. The study covered four successive plantings between May 2008 and March 2009, aiming at documenting the insect pests associated with the major AILV's (Amaranthus hybridus and Solanum scabrum). In addition, the study sought to delineate the most economically important insect pests and development of control measures. In the farmers' fields, seedlings were planted in plots of 3mx3m under completely randomized blocks. To quantify the insect pests, three leaves were sampled from ten randomly selected plants for twelve weeks after transplanting. The insect species counts were identified using entomological identification keys, diagrams in books and by comparison with insect collections preserved in the Entomology laboratory of Kabete Campus, University of Nairobi. Twelve insect species belonging to six insect orders infested the AILV's in all the four plantings. However, Tetranychus species infested the plantings done during the dry and hot seasons. Four major insect species caused major damage on the vegetable leaves, stems and fruits with the most important species being aphids, cutworms, flea beetles and red spider mites. Some nine insect species were of minor importance, as their infestation had less damage and hence little impact on yield losses. Three other beneficial species were identified as natural enemies of the insect pests. It is recommended that these be considered for conservation in pest management strategies designed for the management of the pests.

Key words: AILVs, Insect pests, crop damage, Tetranychus, Natural enemies.