

Control of Aphids on Kales Using Gentle Soap and Garlic Solution

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A103/11679/2015

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Abstract

Kale (*Brassica oleraceae* var *acephala*), commonly known as *sukumawiki*, is a crop that belongs to the Brassicas family. The crop is highly nutritious containing high levels of vitamins, minerals and brain-boosting phytonutrients. The crop is attacked by aphids that lower its quality thus fetching a low price in the market. The study was conducted in the University of Embu. The location of the site lies within the geographical position 0.52S, 37.46E longitude and latitude respectively. The study required a farm size of 32.5m that would be enough to accommodate four treatments with each containing three replicates with spaces left for movement and operations covering 0.5m between the plots. For each plot, planting was done at a spacing of 30cm × 30cm which accommodated 9 plants per plot and a total of 108 plants for the main plot. The objective of the study was to investigate the effectiveness of control measures of aphid infestation of kales under four treatments namely; T1 – Garlic solution, T2 – soap solution, T3 combination of Garlic and soap solution and T4 – being a control experiment. The data shall be collected by counting the infestation of thrips per leaf collected randomly from the treatment application; two weeks after the kale plants are transplanted and established whereby the records on the aphid's population shall be recovered with a period of five days interval for a period of one month. Data collected was subjected to analysis of variance using SAS computer software package and separation of means was done using least significant difference (LSD) at $p < 0.05$. , combination of soap powder and garlic solution (T3) performed the best with the highest reduction in the aphids population hence could be an option of interest in the control. Following was soap powder solution (T2) and garlic solution (T1). It is recommended that the study be repeated for another season to confirm the results of this study which were based on one season.