Kill the Pest; Save the Environment

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Pests cause a lot of economic loss to crop farmers by reducing yield, lowering harvest quality, and reducing farmers profit by increasing production costs. Furthermore, there has been much concern about the effects of synthetic pesticides on the environment and on human health. Fermented urine soaked in chopped neem stems and lye obtained from ashes were mixed in the ratio of 1:1 and diluted with water in ratio 1:10. Dulapon®, neem activated fermented urine-lye, fermented urine-lye, fermented urine, lye were used as 5 treatments in 4 replicates on domestic and agricultural pest. Five vegetable beds, A, B, C, D and E, each measuring 1 m X 3 m of Celosia argentia were infected with leaf thrips and the treatments applied. The average response time of the insects were 18.67, 27.67, 32.83, 38.00, 40.00 seconds respectively. Though all the insecticides were effective but the time taken were significantly higher in treatments C, D and E. The damages to the leaves of C. argentia was most minimal in treatment A followed by B, C, D and E. The mass of harvested vegetable were 8.52 Kg, 8.32Kg, 7.82Kg, 7.15 Kg and 4.12Kg respectively, significantly lower in C, D and E at a 0.05. The project demonstrated that these waste products, carrying no price tag, if properly developed can replace the synthetic, expensive chemicals that contain much hazardous synthetic products that have health and safety concerns. Also gardeners and small-scale farmers can make their pesticides from locally available materials at little cost but with good results.

Awards Won: