

Varying Frequency Application of Vermicast as Supplemented with 19-19-19+Me in the Agronomic Performance of Lettuce (*Lactuca sativa*)

Authors : Jesryl B. Paulite, Eixer Niel V. Enesco

Abstract : Lettuce is not well known in the lowland locality in the tropical countries like Philippines. Farmers thought that this crop is not adaptable to the climate that we have in lowland. But some new varieties can tolerate warmer conditions. The massive use of pesticides in lettuce production might chronically affect human health and environment. The move of the Philippine government is toward organic. One of the organic material is vermicompost. It is an organic fertilizer that serves as soil conditioner and enhances soil fertility and promotes vigorous and healthy crop growth and Supplementation of 19-19-19+M.E. will make it better since it contains N-P-K and selected microelements to meet the nutritive requirements of the crop. The experiment was conducted at Purok 3, Brgy. Tiburcia, Kapalong, Davao del Norte from February 6, 2014 to March 4, 2014. The study was conducted to determine the effect of varying frequency application of vermicast as supplemented with 19-19-19+M.E. in lettuce. Specifically, this aimed to 1.) Identify the agronomic performance of lettuce as affected by varying frequency application of vermicast as supplemented with 19-19-19+M.E.; 2.) Assess the economic profitability of lettuce as applied with vermicast as supplemented with 19-19-19+M.E. The study was laid out in Randomized Complete Block Design (RCBD) with four treatments and three replications. The treatments were as follow: T1 - Untreated, T2 - Weekly Application, T3- Bi-weekly Application, and T4- Monthly Application. The data on percent (%) mortality were transformed using square root of transformation before Analysis of Variance (ANOVA). Results revealed not significant in terms of percent mortality in weekly and monthly application of the treatment having a mean of 1.76 % and 3.09 %. However, Significant differences were observed in agronomic performances such as; plant height with a mean of 10.63 cm in weekly application and 6.40 cm for the untreated, leaf width with a mean of 10.80 cm for the weekly application and 6.03 for the untreated, fresh weight with a mean of 25.67 g for the weekly application and 6.83 g for the untreated, and yield with a mean of 1,208.33 kg/ha for the weekly application and 327.08 kg/ha for the untreated, respectively. Results further exposed that profitability of lettuce in terms of Return of Production Cost (RPC) were; bi-weekly with 91.01 %, monthly with 68.20 %, weekly with 25.34 % and untreated (control) with 16.69 %.

Keywords : agronomic performance, economic profitability, vermicast, percent mortality, 19-19-19+ME

Conference Title : ICATPN 2015 : International Conference on Agricultural Technology and Plant Nutrition

Conference Location : Vienna, Austria

Conference Dates : June 21-22, 2015