

Multiplication Pattern of Local Earthworm in different crop stands.

Sivaruban.S.,Sivachandran.S.,Pradheeban.L.

Abstract: The changes of earthworm communities were evaluated in different crop stands in a calcic reddish yellow latosol over a period of six months (Aug 2007 /Feb 2008) at Agriculture research station, Thirunelvely. Six treatments and three replicates were used in this experiment such as green gram, maize fodder, okra, sun hemp and natural vegetation. Plots were prepared in size of 3.24 m². Most agronomy practices were done at recommended level. Polythene was placed surround the field. Only organic inputs were used. Thirty earthworms released to each plot. Earth worm numbers were recorded through soil sampling. First soil sampling was done 2 month after planting and other soil samples were taken one month interval (One soil sample/month).Soil samples were taken randomly in plots. 30cm length and 30cm wide metal quadrature, meal fork, 20cm long metal scale, urea bags and trays were used for sampling. A sample soil of area 0.09m² and depth 0.2 m was dug and put it into urea bags. Hand shorting was done. Earthworm number each crop stands and were analysed in ANOVA using SAS. The means were compared using Duncan mean separation test. The average density of mature earthworm ranging from 11.1 to 88.8 individuals (ind)m⁻². The average density of earthworm juveniles range from 107.4 to 109.4 juvenile's'm⁻². More number of earthworms was counted in sun hemp plot, range of mature earthworms 51.9 to 88.8 individuals (ind)m⁻² and range of earthworm juveniles 333.3 to 1081.4 juveniles m⁻². Endogenic species were dominant in the natural eco system. The results indicated that earthworm population responded well in the soil covered by sun hemp, so better to use the sun hemp as one of the crop component in the crop rotation in organic farming.