

Title: Evaluating the effect of soil moisture content on root-knot nematodes in University of Embu

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Abstract

The distribution and abundance of root-knot nematodes is largely affected by soil moisture content. A study was conducted to examine the effects of soil moisture content on RKN in crops fields in University of Embu. The galling severity in plants was assessed using a scale. Soil samples were collected around the infected roots for determination of soil moisture. Data on galling severity and soil moisture content was subjected to ANOVA. Means were separated using Turkey's test. Relationship between galling and soil moisture was determined using Pearson's coefficient. Spinach and tomatoes were the most highly affected crops by root-knot nematodes and had a galling severity of 8, which is equivalent to 66%-75% of roots galled. There was a significant difference ($P \leq 0.05$) in galling severity between the crops. There was a significant correlation between soil moisture and galling severity.