

Distribution of lesion nematodes associated with maize in Kenya and susceptibility of maize cultivars to *Pratylenchus zeae*

Klrv, J W; NJU, F; Wau, S W; Sikora, R A; Schuster, R P; Mwang'ombe, Agnes W

Date: 1998

Abstract

The distribution and impact of lesion nematodes (*Pratylenchus* spp.) in Kenyan maize producing areas were evaluated. Soil and root samples were taken from 120 farms in three districts of Kenya, namely Kakamega, Machakos and Trans Nzoia. Mean populations of *Pratylenchus* spp. (*P. zeae* and *P. brachyurus*) in roots were 280, 131, and 6, in Kakamega, Machakos and Trans Nzoia districts, respectively. Lesion nematodes were recovered from 73.3% of the samples. *P. zeae* and *P. brachyurus* had overall incidences of 72.5 and 6.7%, respectively. Greenhouse tests were conducted to determine the effects of *P. zeae* on growth of seven main genotypes used in Kenya, Dryland composite I, Katumuni composite, and hybrids 511, 512, 614, 625 and Pwani. Numbers of *P. zeae* extracted from roots were significantly ($P \leq 0.05$) different and ranged between 6230 in hybrid 614 and 10970 in Katumuni composite. The nematode caused significant ($P \leq 0.05$) reduction in root weight of Katumuni composite, Dryland composite I, hybrid 511 and hybrid 512. Nematode infection significantly ($P > 0.05$) reduced shoot weight of Pwani hybrid and height of Dryland composite I.