

Reaction of potato cultivars, to *Ralstonia solanacearum* in Kenya

Ateka, E.M.; Mwang'ombe, Agnes W; Kimenju, J.W.

Date: 2001

Abstract

A survey of bacterial wilt (BW) incidence was carried out in three potato producing districts of Kenya, namely, Nyeri, Nyandarua, and Meru in 1997. The survey was carried out in 30 randomly selected farms in each district. Incidence of BW was highest (18.8%) in Nyeri district, intermediate (16.7%) in Meru and lowest (10.4%) in Nyandarua. A significant and negative correlation ($p=0.05$; $r = -0.34$) between bacterial wilt incidence and altitude was observed. Fifteen potato cultivars, Nyayo, Desiree CIP-800048, Roslin Tana, Kerrs pinkLB-5, Golof (Dutch Robijn), B53, Tigoni CIP-381381.13, Rutuku CIP-720097, AsanteCIP-381381.20, Kenya DhamanaCIP- 800228, Mauritius Clone (89•016), .: KP93739.26, KP92633.26, and Cruza148 CIP-72011 were subsequently evaluated for their reaction to *Ralstonia solanacearum* in artificial and natural infections in the greenhouse and in the field. Although none of the cultivars appeared resistant, there were significant ($p=0.05$) differences in bacterial wilt incidence and severity among the cultivars. Cultivars Kenya Dhamana, Mauritius and Cruza(Cilt- 720118) had low bacterial wilt severity and incidence and were rated tolerant, whereas the other cultivars were rated moderately susceptible or very susceptible.