

Influence of host genotypes on the incidence of major diseases of tomato during winter season in Tripura

Abstract:

A field experiment with twelve tomato genotypes was conducted during the years 2003-04 and 2004-05 at ICAR Research farm in Tripura to evaluate resistance against the major diseases occurring during winter season. It was found that both bacterial wilt (*Ralstonia solanacearum*) and tomato yellow leaf curl (Tomato Yellow Leaf Curl Virus) were prevalent during the season. Significant difference was observed amongst the host genotypes on the incidence of bacterial wilt. The genotypes viz. BT-1 and BT-10 were found most resistant to bacterial wilt. In addition, CKVT-17 and Sikkim Local, showed very high degree of tolerance to the disease, while, Manikhamna (Sel-1) - a genotype selected from Manipur was most susceptible with P1 ranging between 33.33 and 55.56. As regards the incidence of tomato yellow leaf curl disease, it was found that all the genotypes were affected by the disease to a considerable limit. However, amongst them, H-24, Sikkim Local and Tura Local were to some extent tolerant, while, BT-1 was most susceptible. Significant difference in fruit number and fruit yield was observed amongst the genotypes. Of the two highly resistant varieties, BT-10 was better than BT-1 in respect of yield. The fruit yield decreased more with the incidence of wilt and that was more significant when the wilt percentage increased above 12.5.

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