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# The incidence of *Potato leafroll virus* in relation to population dynamics of *Myzus persicae* (Sulzer)

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An experiment was conducted to find the correlation between the incidence of *potato leafroll virus* (PLRV) with the population of aphid and environmental factors. Screening comprised of ten potato varieties (Tota 704, FD 71-1, FSD white, FD 8-1, FD 76-24, SH 216-A, Kuruda, FD 74-41, FD 74-50 and N 96-25) in Sargodha, Punjab showed the mean disease incidence was 64.58%. The susceptible response was showed by Tota-704, FD 71-1, FSD white, FD 8-1, and FD 76-24.SH 216 A and Kuruda were moderately resistant. FD 74-41, FD 74-50 and N 96-25 were moderately susceptible varieties. In susceptible verities, disease severity was significantly negatively correlated with maximum and minimum temperature and positively correlated with relative humidity in susceptible varieties. Disease severity showed significant negative correlation with minimum temperature in moderate resistant varieties and maximum and minimum temperature in moderate susceptible varieties. Maximum temperature and relative humidity were significantly negatively correlated with disease severity in moderate resistant varieties. Disease severity was high when the aphid population was maximum. So it was concluded that the incidence of PLRV mainly depends on both the aphid population and environmental factors. It is suggested that for the control of PLRV incidence the population of aphid was checked regularly and proper control measures should be adopted.

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