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Incidence of potato leaf roll 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 leaf roll virus (PLRV) with the population of aphid and environmental factors. Screening comprised of ten potato varieties (Total 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%. 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 varieties, 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 was significantly negatively correlated with disease severity in moderate resistant varieties. Disease severity was high when aphid population maximum. So it was concluded that the incidence of PLRV mainly depends on both 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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