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Seasonal Incidence of *Larvacarus transitans* on *Zizyphus* in Rajasthan

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Larvacarus transitans (Ewing) a pest of ber (*Zizyphus mauritiana* Lamk.) is widely distributed in India forming a number of galls on the twigs and causes considerable damage to the ber orchards especially the grafted plants (Latif & Wali 1961). The infestation appears on twigs of 1.5 to 2.0 cm in diameter in the form of minute galls which grow in size with age, become hard and scale like. The mites enclosed within the gall, suck the cell sap from the tissues and affect the plant growth. Latif and Wali (1956) reported that *L. transitans* remained within the galls round the year except during the monsoon season when the galls rupture and the inmates emerge out for starting new infestation. Sharma and Kushwaha (1984) studied the varietal preference of *L. transitans* on four varieties of ber at Udaipur during 1978-80. The present studies were carried out to assess the incidence of the mite and the varietal susceptibility in ber.

Three plants each of 4 improved varieties of ber viz; Gola, Umran, Sev and Mundia at the horticultural farm, Jobner were selected randomly for estimating the total number of galls (gall intensity) on the twigs and mite population on five randomly selected twigs each time (Sharma & Kushwaha 1984) at monthly intervals from October 1988 to August 1989. The meteorological data pertaining to temperature, relative humidity and rainfall were recorded for finding out the correlation with mite population.

The incidence of mites commenced from the 1st week of October and continued upto the 1st week of August 1989. The maximum number of galls and mite population in each gall were observed in the 1st week of June in all the varieties (Table 1). The population then declined gradually with the onset of rains and this decline is due to distortion of the galls. The data further revealed the varietal susceptibility in the intensity of gall formation and density of mites. The varieties in descending order of susceptibility to the mite attack were Sev, Umran, Mundia and Gola. This might be due to the variation in the inherent potential resistance among different varieties. These observations are in conformity with the findings of Sharma and Kushwaha (1984).

Table 1 *Monthly gall intensity per twing and mite population per gall on different varieties of ber*

Sampling period		Gall intensity on				Mite population gall^{-1} on			
		Gola	Mundia	Sev	Umran	Gola	Mundia	Sev	Umran
October	1988	18.9	16.0	6.4	1.3	53.7	50.0	20.7	21.1
November	1988	50.8	38.4	10.1	12.3	80.5	53.4	24.5	38.1
Dcember	1988	51.6	42.1	10.5	15.0	86.6	76.9	24.7	41.8
January	1989	51.7	51.1	11.4	19.5	91.9	85.4	28.0	42.8
February	1989	56.4	53.7	12.7	19.7	90.7	101.1	29.9	46.5
March	1989	56.7	54.1	16.0	20.6	111.4	107.3	34.1	49.1
April	1989	64.4	57.1	20.4	21.4	123.9	117.3	40.1	64.4
May	1989	65.4	57.9	20.4	24.0	124.5	134.5	37.1	61.1
June	1989	71.0	58.1	15.6	24.2	133.9	128.7	45.1	72.1
July	1989	52.0	48.1	11.3	20.9	115.0	108.9	38.1	55.1
August	1989	46.6	38.1	10.6	14.7	64.7	57.1	17.2	21.4

The pest population showed significant negative correlation (0.8413) with the relative humidity. No significant correlation was observed with regards to the maximum or minimum temperature and rainfall. Latif and Wali (1961) correlated the emergence of *L. transitans* with the onset of monsoon and reported that oviposition and hatching were delayed with low temperature and accelerated with rise in temperature.

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