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Epidemiological Studies on Mosaic Disease of Ridge Gourd

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Epidemiological studies was carried out at Pathology Block of ICAR-Central Institute for Arid Horticulture, Bikaner during rainyseason of 2016 to determine the effect of weather parameters in relation to incidence of mosaic disease on ridge gourd geotype 'Bikaner Local'. Weekly observations were taken on mosaic disease and per cent disease index (PDI) was calculated during crop period. Weekly meteorological data like average maximum temperature, minimum temperature, maximum RH, minimum RH, rainfall, wind velocity, evaporation and bright sun shine hours (BSSH) per day were also recorded. The initiation of mosaic disease was first noticed in August, 2016 and it was found that minimum PDI (6.67%) of this disease was recorded at an average maximum temperature (34.4^{0}C), minimum temperature (26.2^{0}C), average maximum RH (86.0%) and minimum RH (61.6%), average rainfall (16.0 mm) and bright sun shine hours (6.2) on 34th standard week, while maximum PDI (26.64%) was found at an average maximum temperature (36.3^{0}C), minimum temperature (23.50^{0}C), average maximum RH (84.7%) and minimum RH (47.9-61.6%), rainfall (24.2 mm) and BSSH (6.6) on 40th standard week of the year. Thereafter, correlation between PDI and different meteorological parameters were determined. Among these parameters, maximum temperature, evaporation and BSSH had positive correlation with PDI (r = 0.588, r = 0.385 and r = 0.310). While minimum temperature, maximum RH, minimum RH, rainfall and wind velocity showed negative correlation with PDI (r = -0.320, r = -0.378, r =-0.467, r = -0.230 and r = -0.183). Since environmental factors play a great role in buildup of disease development, such studies would help timely adoption of prophylactic measures, based on meteorological observation, against the diseases in order to minimize the crop losses.

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Screening of various genotypes of Castor against major insect –pests of South-West Haryana

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The present investigation was conducted for evaluation of various genotypes namely, JHB 1018, SHB 974, SLCH 158, ICH 66, ICH 68, Maharaja 9, DCH 519, GCH 7, DCH 177 and DCH 1566 at Dryland Research Farm of Choudhary Charan Singh Haryana Agricultural University, Regional Research Station, Bawal (Rewari) Haryana during the *kharif* 2017. Infestation of different insect-pests mainly, castor capsule borer, leaf hopper, hairy caterpillar and tobacco caterpillar was observed in all the genotypes of castor. The minimum infestation of capsule borer (5% per spike) and 4.55% per plant on stems, leaf hopper (1.00/leaf), hairy caterpillar (0.22/plant) and tobacco caterpillar (2.20/plant) was recorded in the genotype Maharaja 9. Maximum per cent infestation of capsule borer per spike was recorded 14.40 per cent, while 16/70 per cent was recorded on stem. The infestation of leaf hopper, hairy caterpillar and tobacco caterpillar in term of number of insect population was recorded the maximum 3.80/leaf, 4.11/plant and 3.40/plant, respectively in the genotype SHB 974. Yield was also recorded to be the maximum in Maharaja 9 (30.59q/ha) and the minimum in SLCH 158 (22.33q/ha) after 270 days of sowing even after maximum infestation in the genotype SHB 974 because of less bearing capacity of spikes of genotype SLCH 158.