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Study of month wise weather climatic changes monitory on the appearance of viral disease symptoms

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Abstract

It is the most vulnerable topic in reference with population and its density movement of virus vectors like Aphid (*Aphis gossypii*) and whitefly (*Bemisia tabaci*) incidence, transmission and thus ultimately for disease symptoms appearance. The weather climatic conditions gets on changing locally. In some months there is great loss of crops in relation with production and cost wise also.

Keywords: whitefly, *Aphis gossypii*, *Bemisia tabaci*, *Hibiscus rosa-sinensis*

1. Introduction

In all over India, the climate is not uniform, that is the reason in different states different variety of crops are cultivated with good results depending season wise. Weather factors like temperature R_H (relative humidity), rain, wind velocity and light in terms of intensity duration and quality During experimental observations all these above aspects were counted and considered for overall impact for the appearance of rival symptomatic diseases. In different climatic changes there were observed both positive correlation and negative co-relation in three ways- mean, maximum and minimum for these factors.

Materials And Methods

The month wise plantation in pots or even in fields is the 1st step to be carried on further by keeping in mind all suitable and proper conditions. The monitoring of all-weather factors is must. For better observation which accurate all the facilities were made available timing of dates observations should be kept in mind maximum and minimum temperature, R_H and rainfall are noted down throughout the day time.

Observation, findings and analytic Computation

Month	Temperature		R_H (during day)	Rainfull (mm)	Symptoms appearance percentage in plants
	Maximum	Minimum			
Jan	24	5	82	0.01	67 %
Feb	24.5	7	63	0.02	72 %
March	28	15	58	3.0	52 %
April	25	26	18.5	0.01	30 %
May	41	127	36.5	0.03	32 %
June	38	26	47.5	0.00	42 %
July	38.4	26.9	63	0.00	49 %
August	30	26	94	7.9	91 %
September	37	26.2	60	0.01	54
October	35	24.1	65.5	0.02	57
November	31	17	72.5	0.00	62
December	29	12	66	0.01	59

Discussion

The above weather data of factors were at Lucknow where experiments were done under every day observations but at different times during day and data were collected likewise and

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recorded. For this Amausi Meteorological station in Lucknow was supporting and monitoring enormously. It is seen that in different months, seasonal variations were well demarcated and accordingly the symptoms appeared, it is seen that the tuning between temperature and R_H relative humidity is well marked. Possibly, the rainfall plays significant role. The maximum disease appearance was during the months of January, February March and on average basis in June, July but out of these the maximum by highest percentage was in month of August.

Conclusion

For getting better results during cultivation of economically important crops the seasonal weather climatic changes occurring should be kept in mind to proceed the enhancement in production and cost value.

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