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Counting of Whitefly numbers from yellow sticky traps and from direct count on Bhindi plants.

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Abstract

The total density of virus vectors is dependent on incidence, the life cycle since from eggs deposition/oviposition till the emergence of young ones from pupae and the adult stage. The Whitefly (*Bemisia tabaci*) is always as alatae adult so that can cover long distance as virus vectors. Their number on plants is commonly influenced by fluctuations of weather particularly temperature and relative humidity (RH). Thus, climatic changes play great role. The appearance of whitefly by their numbers is dependent on 25-30°C temperature and 30-50 % by relative humidity.

Keywords: Whitefly, Vectors, *Bemisia tabaci*, Bhindi plants

Introduction

Whitefly (*Bemisia tabaci*) is one of the important virus vectors.

In North India, especially East U.P. due to playing significant role their control is must by their number and density by decreasing frequency of disease spread, yellow sticky trap catches showed high increase in number in March- April but the number is found decreased during rains most probably due to wetting of plant Leaves, so that Whiteflies could not settle down there and wander for proper settlement by moving to long distances. Conditions favouring whitefly build up are variable. The increase in count is correlated with temperature more positively and relative humidity.

Methods

First of all, potted plants in replicates are made available and also the plot field is well prepared and selected for the experiment to proceed. The sticky traps of size 12 x 10 inches are prepared and then wrapped over by yellow polythene as vectors like Whitefly (*Bemisia tabaci*) are photosensitive for yellow colour. To enhance the trapping smear of vaseline coating is done over the surfaces of traps as well as on under surfaces (Abaxial) of host leaves. The number of Vector is counted in morning, noon and at evening. The traps faces should be in the direction of wind blowing

Observations, Findings and Analytical Calculation.

Plants selected	Use of adherent vaseline	Number of Whiteflies		Weather condition	Difference of White fly number in both
		Count from Abaxial surfaces of Leaves	Trap counting		
Bhindi	under surface	89	39	Bright light	50
Tomato	under surface	75	41	Bright light	34
Mung	under surface	77	35	Bright light	42
Cowpea	under surface	92	37	Bright light	55
Traps	Front surface	--	42	Bright light	---

Discussion

The experimental datas were collected in suitable bright light conditions for comparative point of view. It has been found that on abaxial surfaces of leaves of different plants, the

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density in terms of number is maximum as compared to yellow sticky traps. This may be probably due to physiological behavioural difference as found between living and nonliving states. The increased number directly reflects the pattern of incidence of vectors like Whitefly (*Bemisia tabaci*) and evidence of population, transmission frequency and hence the symptomatic disease appearances. In different plants, there is found difference in the number of Whiteflies through which we can also analyse that vectors are more sensitive towards the attraction of plants rather than traps which may be biologically important in several other aspects.

Conclusion

By taking different variety of plants for the data obtained for counting of vectors, it can be diagnosed for cultivation point of view the type of plants to be cultivated for better production results. _

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