

Scenario of Coconut Pests in Konkan Region of Maharashtra

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ABSTRACT

Rhinoceros beetle, Red palm weevil, Black headed caterpillar and Eriophyid mite are major pests infesting coconut in Konkan region of Maharashtra. The roving survey was carried out in major coconut growing districts of Konkan region of Maharashtra viz., Ratnagiri, Raigad, Sindhudurg and Thane districts during the year 2013. Data collected from this survey revealed that the infestation by rhinoceros beetle in all the four districts was in the range of 12.67 to 16.80 per cent. High spindle damage was observed in Sindhudurg district (5.08 per cent). The red palm weevil incidence was in the range of 13.27 to 15.12 per cent. Maximum mortality of palm was observed in Sindhudurg district (4.10 per cent). The black headed caterpillar was noticed in all the districts but maximum incidence reported from Thane district up to the extent of 39.90 per cent. The eriophyid mite infestation was in the range of 43.95 to 48.47 per cent in all coconut growing districts but Intensity of mite was mild to medium in all the districts. Palghar tahsil in Thane district and Talsande tahsil in Kolhapur district were identified as hot spot areas for black headed caterpillar and sufficient number of parasitoids were supplied to coconut growers from Regional Coconut Research Station, Bhatye, Ratnagiri for the effective management of the pest.

Keywords: Coconut Pests, Roving Survey

1. INTRODUCTION

The coconut palm eulogized as the “Tree of Heaven”, King of Palms and Natures supermarket, being cultivated since time immemorial, as references are available in various literatures including ‘Ramayana’. Coconut is grown in more than 93 countries on a total area of 12.5 million ha producing 5562 million nuts annually (Anonymous, 2004). The coconut is one of the important plantation crops of the Maharashtra. The area under this crop has been increased day by day after successful implementation of Employment Guarantee Scheme.

Even though, the coconut had a prime position as a plantation crop in the country, it faces many problems like vagaries of nature and sudden outbreak of pest and diseases. The coconut palm is attacked by a number of insect pests at all stages of its growth. The coconut palm is attacked by 200 insect and non-insect pests (Rabindra, 2000). Among these, the rhinoceros beetle, red palm weevil, black headed caterpillar, eriophyid

mite and rats are serious pests and found in many coconut gardens in Konkan region of the Maharashtra.

2. MATERIALS AND METHODS

To record the intensity of infestation of various pests of coconut in Konkan region of Maharashtra, roving survey was carried out in Ratnagiri, Raigad, Sindhudurg and Thane districts of Konkan region of Maharashtra from April 2013 to March 2014. Out of these four districts, the coconut growing tahasils were selected. From each district, ten villages were selected and from each village five coconut growers were selected for recording observations. The total number of palms from each tahasil was taken in to consideration for calculating per cent infestation. The per cent infestation was calculated by using following formula;

$$\text{Per cent infestation} = \frac{\text{Total number of infested palms}}{\text{Total number of palms}} \times 100$$

3. RESULTS AND DISCUSSION

The observations recorded during the survey work are summarized in Table No. 1

District	Black headed caterpillar Mean Incidence (%)	Rhinoceros beetle Mean Incidence (%)	Red palm weevil Mean Incidence (%)	Eriophyid mite Mean Incidence (%)
Ratnagiri	6.34±0.82 *	12.67±1.3 5	5.76 ± 0.93	46.22±3.3 5
Raigad	6.58±1.24	16.80±1.8 8	4.58 ± 1.22	46.53±2.6 7
Sindhudurg	2.27±0.67	16.52±1.4 4	15.12 ±4.99	43.95±3.7 3
Thane	39.90±6.8 3	16.43±0.3 3	13.27 ±1.21	48.47±1.7 2

Table 1 : Mean Incidence of major coconut pests in important districts of Maharashtra

Values represent Mean ± Standard error

Rhinoceros beetle, Red Palm Weevil, Black headed caterpillar and Eriophyid mite are major pests infesting coconut were observed during survey work from this region.

3.1. Rhinoceros beetle: The infestation of Rhinoceros beetle more or less similar in all the four districts. It was in the range of 12.67 to 16.80 per cent in all four districts. Maximum incidence was observed in Raigad while minimum incidence was observed in Thane district. More Spindle damage was observed in Sindhudurg district (5.08 per cent) whereas maximum leaf damage was observed in Thane district (13.57 per cent) followed by Raigad district (13.04 per cent).

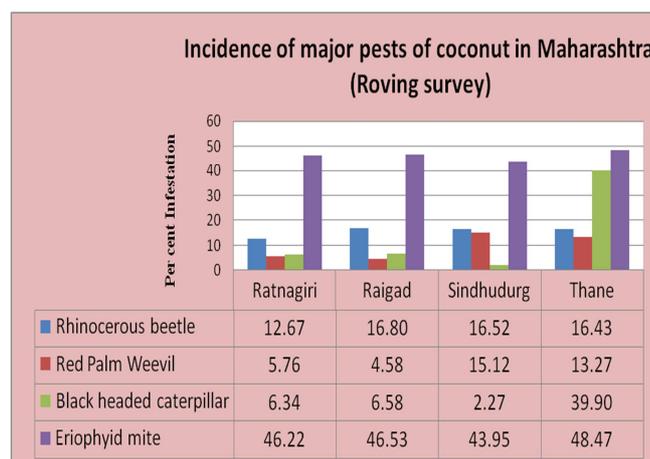
3.2. Red Palm Weevil: The incidence of Red palm weevil was maximum in Sindhudurg district (15.12 per cent) followed by Thane district (13.27 per cent). Maximum dead palms percentage was observed in Sindhudurg district (4.10 per cent) followed by Thane district (3.37 per cent).

3.3. Black headed caterpillar: The infestation of Black headed caterpillar was noticed in all the districts. Maximum incidence observed in Thane district (39.90

per cent). The incidence was just started in Sindhudurg district. In Ratnagiri district it was 6.34 per cent while 6.58 percent incidence was recorded in Raigad district.

3.4. Eriophyid mite: The infestation of eriophyid mite was recorded from all the orchards observed in all districts. The incidence of eriophyid mite was in the range of 43.95 to 48.47 per cent. Maximum incidence was observed in Thane district (48.48 per cent) while minimum incidence was observed in Sindhudurg district (43.95 per cent). Intensity of mite was mild to medium in all the districts.

During survey work, hot spot areas for Black headed caterpillar was identified. Tahsil Palghar in Thane district and Talsande in Kolhapur district were identified and supplied parasitoids as per need to the farmers.



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