

Incidence of Papaya Mealy bug in Tapioca in Namakkal District

Bio control of mealy bug in Namakkal District

Papaya Mealy bug (*Paracoccus marginatus*)

It is a small polyphagous sucking insect which attacks several genera of host plants. Its host range includes more than 60 species of plants including Tapioca, Papaya, Hibiscus, Jatropha, range of vegetables, fruits, flowers, ornamental plants and weeds.

Infestation

Infestation of the mealy bug appears as clusters of cotton like masses on the above ground portion of plants with long waxy filaments. Immature and adult stages of mealy bug suck the sap of the plant and weaken it. The leaves become crinkled, yellowish and wither. The honey dew secreted by the bug and the associated black sooty mould formation impairs photosynthetic efficiency of the affected plants. Due to its short life cycle more generations per year, higher fecundity, easy dispersal, protective mealy coating etc., helped this pest to multiply in enormous population.

Interventions:

Process : Bio control of mealy bug

Biological control of mealy bug has been attempted through the Parasitoids (*Acerophagus papayae*) which is known to suppress the papaya mealy bug in its host range.

Technology : Mass production of the Parasitoid for the control of papaya mealy bug

Krishi Vigyan Kendra, Veterinary College and Research Institute Campus, Namakkal has established a laboratory for Mass Multiplication of Parasitoid (*Acerophagus papaya*) for the control of Papaya Mealy bug (*Paracoccus marginatus*) during Feb 2011. The Scheme was sponsored by Agriculture Technology Management Agency (ATMA), Namakkal. In Namakkal District, Tapioca is cultivated in an area of 15,000 ha .90 % of the crop is affected by papaya mealy bug .

Krishi Vigyan Kendra, Namakkal has mass multiplied the parasitoids successfully in the laboratory on *Paracoccus marginatus* colonies grown on Potato sprouts, mealy bug infected papaya fruit and in Tapioca leaves. Parasitoids could parasitize and develop on mealy bugs cultured on other host plants also.

The parasitoid would be provided based on registration which is done by KVK, Namakkal through phone calls.

Registration of Farmers at block level, Namakkal District and other districts of Tamil Nadu- Up to 16.08.2011

S1 .No	Taluk	:	Number of farmers registered	District	:	Number of farmers registered
1	Pallipalayam	:	67	Salem	:	8
2	Mallasamuthiram	:	254	Perambalur	:	3
3	Vennandhur	:	82	Trichy	:	14
4	Namagiripettai	:	69	Tirupathur	:	2
5	Tiruchengode	:	807	Nagai	:	1
6	Elachipalayam	:	108	Karur	:	12
7	Pudhuchathiram	:	206	Dharmapuri	:	3
8	Sendamangalam	:	78	Erode	:	1
9	Kollihills	:	9			
10	Erumapatti	:	67			
11	Mohanur	:	109			
12	Namakkal	:	72			
13	Paramathy velur	:	246			
14	Kabilarmalai	:	43			
15	Rasipuram	:	158			
Total			2325	Total		44

Supply of Parasitoids:

S.No	Phase	Number of farmers benefited	Number of parasitoids supplied
1.	I st Phase 26.07.11	640	1,28,000
2.	II nd Phase 30.07.11	330	66,000
3.	III rd Phase 16.08.2011	377	75,400
4.	IV th Phase 20.08.11	978	1,95,600

Horizontal spread:

The below mentioned farmers were trained for the mass multiplication of parasitoid by using box method at KVK, Namakkal and they supplied the parasitoid to the relevant areas.

Parasitoid producers and suppliers from Namakkal district.

S.No	Farmers Name and Address	Contact Number
1/	Th.Periyasamy,Mallasamuthiram	9788593927
2/	Th.Thangaraj,Mallasamuthiram	9789637288
3/	Th.Rajendran,Pallipalaym	9942515164
4/	Th.Natesan,Pallipalyam;	9360511226
5/	Th.Madhavan,Thalampadi	9003448360
6/	Th.Duraisamy,Thalampadi	9790936135
7/	Th.Thangavel,Elachipalayam	9443228449
8/	Th.Thangavel,Tiruchengode.	04326 250063 9750703897
9/	Th.Mani,Vattur	9976141208
10/	Th.Venkatasamy,Pudhuchathiram	8883466171

11/	Th.Saravanan,R.Pudhupatti	9952911237
12/	Th.Raja,Karkodalpatti.	9360098842
13/	Th.Kulanthaivel,R.Pudhupatti.	9442958513
14/	Th.Mani,Aariyur	9092531983

Economic gains:

The parasitoids controlled the mealy bug incidence very effectively. This bio control method drastically reduced the pesticide usage and cost of cultivation.



Parasitoid producers and suppliers from Namakkal district.

Source:

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