

Annexure v

I. Joint Field Visit of TNAU Scientists and Department Officials 'New wilt' like disease of coconut in Thanjavur district during August 29-30, 2019

The 84th Scientific Workers' Conference was held on 19.8.2019 under the Chairmanship of Agricultural Production Commissioner & Principal Secretary to the Government of Tamil Nadu and the Vice Chancellor of Tamil Nadu Agricultural University, Coimbatore. During the meeting, field problems of the individual districts were discussed. **Thiru. K. Nedunchezian**, JDA, Thanjavur, raised an issue of a coconut disease with unknown etiology resembling wilt disease that may be investigated thoroughly to provide solution to the problem.

As suggested by the APC, a joint team visit involving scientists of TNAU and Department Officials was performed for two days during August 29-30, 2019 with the approval of the Vice Chancellor. The team comprises of the following members

TNAU team

1. Dr. A. Karthikeyan, Prof and Head, Coconut Research Station, Veppankulam
2. Dr. G. Karthikeyan, Professor (Plant Pathology),
3. Dr. K. Rajamanickam, Adjunct Professor (Agrl. Entomology)
4. Dr. P. Kalaiarasan, Assistant Professor (Nematology)

Department Officials

1. Mrs. R. Sarumathi, ADA (Quality Control), O/o JDA, Thanjavur
2. Mrs. S. Thilagavathy, ADA, Madukkur
3. Dr. M. Naveen Savier, Agricultural Officer, Madukkur
4. Mrs. S. Sangeetha, Agricultural Officer, Pattukkottai
5. Mrs. T. Sudha, Agricultural Officer, Pattukkottai
6. Mrs. S. Rani, Agricultural Officer, Peravurani
7. Mrs. S. Sangavi, Agricultural Officer, Sethubhavachatram
8. Mrs. T. Deepa, Asst. Agricultural Officer

Locations inspected

The team has visited four blocks in Thanjavur District covering Pattukottai, Madukkur, Peravurani and Sethubhavachatram blocks and 18 coconut gardens were inspected. The farm details are furnished in the Table 1 (Attached).

Observations

- Before Gaja cyclone, out of 5275 palms from 70 acres, 152 palms were infected as per the observations of the farmers. This constitutes only **2.88%**, which is considered very marginal.
- After the Gaja cyclone, 2170 palms survived in the region, **none of the palms** had exhibited symptoms of new wilt-like disease
- Despite the fact that there is absolutely no problem of new wilt-like disease of coconut in Thanjavur District, general recommendations available for common wilt disease were prescribed for adoption by farmers in order to prevent the recurrence of such symptoms.

General Recommendations

- Removal and destruction of damaged stem wood logs of coconut in Gaja cyclone affected gardens
- New quality coconut seedlings may be obtained and planted in 3' X 3' X 3' pit size
- Application of FYM@ 50kg/palm/year and neem cake @ 5kg/ palm/ year
- Application of *Pseudomonas fluorescens* and *Trichoderma asperellum* @ 100g each per palm/year in the basin along with farm yard manure

- Root feeding of hexaconazole @ 2ml in 100ml of water / tree has to be given to the basal stem rot infected palms for three times consecutively at three months in terval
- As a prophylactic measure, copper oxychloride (3g in 1lit of water) solution has to be poured to the crown of young seedlings against bud rot disease incidence
- Setting up of pheromone traps *viz.*, Ferrolure with food lures against red palm weevil and Rhinolure against rhinoceros beetle @ one / hectare each
- Drip irrigation may be adopted
- For rejuvenation of 'Gaja cyclone' affected gardens, the following integrated nutrient management package may also be followed
Urea @ 1.3kg/palm; super phosphate @ 2kg/palm; muriate of potash @ 3.5kg/palm; gypsum @ 1kg/palm; magnesium sulphate @ 500g/palm and borax @ 50g/palm in two equal split application preferably during June – July and Dec – Jan. Besides, root feeding of coconut tonic @ 200ml / palm at six months interval for two times consecutively administered, wherever profuse button shedding is observed.

Conclusions

The joint field visit of TNAU Scientists and Department officials has resolved that there is no new 'wilt like disease' in coconut gardens of Thanjavur District at present. General recommendations prescribed for wilt disease may be adopted scrupulously to improve the health status of the existing coconut plantations, while ensuring non-recurrence of such incidence in the near future.

Interaction with farmers



Team visit to coconut gardens in Madukkur block



Team visit to coconut gardens in Pattukkottai block



Table 1: Coconut plantations surveyed for occurrence of new wilt-like disease in Tanjore District

Sl. No.	Details of the Farmer(s)	Village (GPS co-ordinates)	Total area (ac)	Total number of palms before Gaja cyclone	Number of palms wilted due to 'new wilt like disease' before Gaja cyclone as per the farmers' statement*	Number of palms surviving after Gaja cyclone	Number of palms wilted due to 'new wilt like disease' after Gaja cyclone**
1.	Th. S. Arivendhan S/o. Th. Subramaniam Alampallam, Therkkukkadu, Madhukkur block Mobile: 9443407374	Alampallam N10 ⁰ 28.499 E079 ⁰ 21.059	4	270	22	180	-Nil-
2.	Th.T. Gothandaraman S/o. Th. Thiruveni Alampallam	Alampallam N10 ⁰ 28.499 E079 ⁰ 21.059	3.5	240	2	170	-Nil-
3.	Th. V. Ramamurthy S/o. Th. Vairappan Thamarangkottai	Thamarangkottai N10 ⁰ 24.067 E079 ⁰ 24.018	5	350	-Nil-	180	-Nil-
4.	Th. G. Selvaraj S/o.Th. Govinthasamy East Street, Yenathi, Pattukkottai Mobile: 8489531531	Yenathi N10 ⁰ 27.658 E079 ⁰ 17.191	15	1300	20	175	-Nil-

5.	Th. Govindarajan S/o.Th. Subramaniam, East Street, Yenathi, Pattukkottai	Yenathi N10 ⁰ 27.658 E079 ⁰ 17.191	1.5	110	2	0	-Nil-
6.	Th. P. Gandhirajan S/o. Th. Palaniappan Yenathi	Yenathi N10 ⁰ 27.658 E079 ⁰ 17.191	3	200	7	10	-Nil-
7.	Th. A. Michael Samy S/o.Th. Arulanandham Sendankadu II Beat Pattukkottai	Sendankadu N10 ⁰ 27.950 E079 ⁰ 18.815	5	350	13	200	-Nil-
8.	Th. K. Arockiasamy S/o.Th. Kulandaisamy Surapallam, Pattukkottai	Surapallam N10 ⁰ 27.950 E079 ⁰ 18.815	2	150	8	148	-Nil-
9.	Th. S. Iruthiaraj S/o. Th. Saiman Veerakkuruchy, Sukirampatty	Veerakkuruchy N10 ⁰ 27.950 E079 ⁰ 18.815	2	150	-Nil-	140	-Nil-
10.	Th. K. Yuvaraj S/o. Th. Karuppian Nattanikkottai, Peravurani Mobile: 9443332652	Nattanikkottai N10 ⁰ 16.505 E079 ⁰ 11.973	1	80	3	72	-Nil-

11.	Th. Ganesan S/o. Th.Muthiah Nattanikkottai, Peravurani Mobile: 8973011124	Nattanikkottai N10 ⁰ 16.505 E079 ⁰ 11.973	4	300	7	280	-Nil-
12.	Th. S. Rajendran S/o. Th. Shanmugam Nattanikkottai, Peravurani Mobile: 9442474869	Nattanikkottai N10 ⁰ 16.505 E079 ⁰ 11.973	7	500	20	269	-Nil-
13.	Th. S. Veeraiyan S/o. Th. Singaram Valacherikkadu Sethubhavachatram	Valacherikkadu N10 ⁰ 18.541 E079 ⁰ 14.929	2	140	18	105	-Nil-
14.	Th. M. Rajendran S/o. Th. Murugan, East Valacherikkadu Sethubhavachatiram	Valacherikkadu N10 ⁰ 18.574 E079 ⁰ 14.860	2	200	7	108	-Nil-
15.	Th. S. Natesan S/o. Th. Singaram Kalathur, Peravurani block Mobile: 9003321544	Kalathur N10 ⁰ 20.162 E079 ⁰ 11.731	2.5	175	7	15	-Nil-

16.	Th. S. Muthusamy S/o. Th. Subramaniam Kalathur, Peravurani block Mobile: 9047187686	Kalathur N10 ⁰ 20.162 E079 ⁰ 11.731	2.5	200	4	50	-Nil-
17.	Th. R. Thiruvengadam S/o. Th. Ramasamy Kalathur, Peravurani block Mobile: 9943354389	Kalathur N10 ⁰ 20.162 E079 ⁰ 11.731	3	210	12	20	-Nil-
18.	Th. S. Venkitasamy S/o. Th. Singaram Kalathur, Peravurani block Mobile: 9952796697	Kalathur N10 ⁰ 20.162 E079 ⁰ 11.731	5	350	-Nil-	48	-Nil-
Total			70	5275	152	2170	0

*The incidences were observed over a period of two to three years before the Gaja cyclone

****No 'new wilt like disease' observed in any of the coconut palms at present.**