

Annexure - 7

Nano stickers and nano emulsion for dipping (Training)

S. No	Name	Designation	Place	Mobile no
1.	Mr. A.Velayudham	Asst. Director of Horticulture	Trichy	9840232381
2.	Mr. N. Pandiarana	Asst. Director of Horticulture	Theni	9003704076
3.	Mr. T. Ramesh	Asst. Agrl. Officer (Agrl. Marketing)	Theni	9750091801
4.	Mr. T. Thomson	Agricultural Officer (SAGL)	Dharmapuri	9443563977
5.	Mr. R. S. Shameem	Agricultural Officer (SAGL)	Dharmapuri	9443563977
6.	Mrs. M. Vanadhi	Agricultural Officer	Krishnagiri	9003720549
7.	Mrs. V. Priya	Asst. Director of Horticulture	Erode	9095950500
8.	Mr. Shanmuga Sundaram	Asst. Director of Horticulture	Theni	8072056553
9.	Mr. K. V.Kumaravelu	Asst. Director of Horticulture	Salem	9790669171
10.	Mr. V. Arumuham	Asst. Director of Horticulture	Kanyakumari	9789293474
11.	Mr. M. Anand	Asst. Director of Horticulture	Dharmapuri	8015345067





Based on the interaction with the officials, an action plan was formulated to test the efficacy of EFF (Post harvest dip) and nano sticker on mango and banana. The details are summarized below

S.No.	Name	Designation	fruit
1.	Mr. Shanmuga Sundaram	Asst. Director of Horticulture, Theni	Banana (Grand naine)
2.	Mr. T. Ramesh	Asst. Agrl. Officer (Agri-marketing & Business), Theni	Banana (Grand naine)
3.	Mr. N. Pandiarana	Asst. Director of Horticulture, Theni	Banana (Grand naine)
4.	Mr. A. Velayudham	Asst. Director of Horticulture, Trichy	Banana (Ney Poovan or Rasthali)
5.	Mr. R. S. Shameem	AO (SAGL), Dharmapuri	Banana (Ney Poovan or Rasthali)
6.	Mr. T. Thomson	AO (SAGL), Dharmapuri	Banana (Grand naine)
7.	Mr. M. Anand	Asst. Director of Horticulture, Dharmapuri	Banana (Grand naine)
8.	Mrs. M. Vanadhi	AO, Krishnagiri	Mango (Alphonsa)
9.	Mr. V. Arumuham	Asst. Director of Horticulture, Kanyakumari	Banana (Nendran); Mango (variety depending on availability)
10.	Mrs. V. Priya	Asst. Director of Horticulture, Erode	Banana (Grand naine)
11.	Mr. K. V. Kumaravelu	Asst. Director of Horticulture, Salem	Banana (Var: Yelakki)

The materials (EFF liquid formulation, nano stickers, carton boxes) required to carry out the experiment have been given to the concerned officials. The experiment has already been initiated and would be concluded by the first/second week of March, 2020, followed by report preparation and result compilation.

A WhatsApp group has been created to coordinate the experiment at different locations and to establish constant communication between TNAU scientists and Department officials who are carrying out the experiment.

The following key points were highlighted during the training programme that have to be followed with out any deviation while carrying out the EFF dip and Nanosticker experiments.

Banana:

- The EFF technology works best for the fruits harvested at 80% maturity
- The fruits should be free from spots / latent infection / phenol residues and bruises.
- For the sake of maintaining uniformity in experiments, fruits of similar size and maturity should be taken for experiment
- Banana fruits should be preferably be harvested by "Rope Method of Harvesting"
- Number of fruits : Two hands per box (To be followed for both dip and sticker experiments)

Mango:

- The fruits should be harvested at 80 % maturity
- Fruits should be harvested with hooks and nets method
- The fruits should be subjected to de-sapping (fruits should be placed upside down/or to be dipped in water/hot water)

Nano-Stickers

- Fruits (Mango / Banana) should be procured, arranged in boxes, labeled appropriately.
- Just prior to sticking only, the Nano sticker should be removed from sachet.
- Each agricultural/horticultural officer will be given 30 sheets for the experiment
- Boxes for conduct of experiments will procured by Department of Nano Science & Technology, TNAU and will be dispatched to concerned experiment site for the sake of maintaining uniformity in experiments.
- It is advised to maintain 50 % control and 50 % treated fruits. Under circumstances of limited availability of fruits, minimum 10 boxes of control should be maintained.
- Apart from the various data recording (observation in colour, ripening, weight loss, disease incidence), it is highly important to record the visual changes by means of pictures / photographs.
- The 10th day of the experiment period is very crucial which will match with the ethylene burst from fruits. The technology (sticker) will be effective only when the methodology is adopted in terms of time of application.
- All parameters should be entered in the data sheet given to all on daily basis