



TAMIL NADU AGRICULTURAL UNIVERSITY
Centre for Plant Protection Studies

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No. DCPPS/Pesticide Residue Status/November 2022/2022 dt. 3.01.2023

Sir/Madam,

Sub: Centre for Plant Protection Studies – Pesticide Residue status report –
November 2022 - sending – Regarding.

Ref: Remarks given by APC during review meeting held on 10.10.2022

I am pleased to send the Pesticide Residue analysis results of the samples collected in various districts of Tamil Nadu during the month of **November 2022.**

DIRECTOR (CPPS)

Encl : a/a.

To

1. The Director of Agriculture, Chepauk, Chennai – 600 005.
2. The Director, Dept. of Horticulture and Plantation Crops, Chepauk, Chennai – 600 005.

Copy to:

Agricultural Production Commissioner and Principal Secretary to Government
Secretariat, Chennai – 600 009.

Joint Director of Agriculture, All Districts.

Joint Director of Horticulture, Horticulture Training Center, Madavaram Milk Farm
Road, Chennai – 600 051.

Joint Director of Horticulture, Horticulture Illam, Vijayanagaram, Post Box No: 72,
Udhagamanadalam – 643 001

Deputy Director of Horticulture, All Districts.
The Director of Research, TNAU, Coimbatore.
The Director of Extension Education, TNAU, Coimbatore.
TPO to VC, TNAU, Coimbatore.

Pesticide residue status - November 2022

A total of 80 samples including fruits, vegetables, spices and herbs were collected from Coimbatore and Erode districts during November 2022 and analysed for pesticide residues of organochlorines, organophosphates, synthetic pyrethroids, neonicotinoids, diamides and fungicides.

A. DETECTION OF OFF LABEL PESTICIDES

Fruits

Tebuconazole and thiamethoxam in apple and tebuconazole, fluopyram, clothianidin, cypermethrin and thiamethoxam in grapes were the off label pesticides detected.

In the organic grape fruit samples, residues of tebuconazole, fluopyram, clothianidin, thiamethoxam, novaluron and cypermethrin detected were the off label pesticides.

Vegetables

In market samples, off label pesticides were detected in capsicum, cauliflower, chilli and tomato. The insecticides detected were imidacloprid, clothianidin, fipronil, tolfenpyrad, tebuconazole, trifloxystrobin, ethion and cyhalothrin in capsicum; thiamethoxam and tolfenpyrad in cauliflower; clothianidin in chilli; acetamiprid and fluopicolide in tomato.

In farmgate vegetable samples, off label pesticides detected were thiamethoxam in cauliflower; clothianidin, thiamethoxam and difenaconazole in capsicum.

In organic samples off label pesticides detected were imidacloprid in brinjal and thiamethoxam in cabbage.

Cucumber samples collected from protected cultivation showed fluopicolide residue as off label pesticide.

Spices and herbs

In spices, cardamom samples were detected with off label pesticide residues namely cypermethrin, profenophos and ethion. In curry leaf samples thiamethoxam, novaluron, profenophos, imidacloprid, clothianidin, tebuconazole, trifloxystrobin, cyhalothrin, difenaconazole, dinotefuran, azoxystrobin and bifenthrin were the off label pesticides detected.

B. SAMPLES WITH RESIDUE ABOVE FSSAI MRL

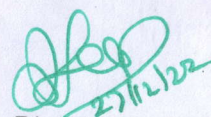
- Quinalphos residues detected in cardamom were exceeding FSSAI MRL of 0.01 mg/kg.

Inference

Out of the total samples (80 Nos.) of fruits, vegetables, spices and herbs collected and analysed, 37.5 % of the samples showed residues at detectable level. In 2.5 % of the cardamom samples, pesticide residues exceeded the FSSAI MRL. Off label pesticides were detected in 33.75 % of total samples. No pesticide residues were detected in banana, orange and pomegranate collected from market. Banana and orange collected from organic shops also showed no detectable residues of pesticide analysed. Among the vegetable samples, cucumber, okra, cabbage and brinjal collected from market and chilli, okra, tomato collected from farmgate showed no detectable residues. Organic vegetables of cauliflower, okra, chilli and tomato showed no detectable residues.

Pesticide residue status - November 2022

Commodity	Sample source	No. of samples analysed	No. of samples detected with pesticide residues	No. of samples without pesticide residues	No. of samples detected with off label pesticide	No. of samples above FSSAI MRL's
Vegetables	Farmgate	27	5	22	3	0
	Market	16	8	8	7	0
	Organic - Market	6	2	4	2	0
	Protected cultivation	3	2	1	2	0
Vegetables Total		52	17	35	14	0
Fruits	Market	10	3	7	3	0
	Organic - Market	3	1	2	1	0
Fruits Total		13	4	9	4	0
Spices	Market	9	6	3	6	2
Herbs	Market	3	3	0	3	0
Fish	Market	3	0	3	0	0
Grand Total		80	30 (37.5%)	50 (62.5 %)	27 (33.75%)	2 (2.5%)


27/11/22
Director
CPPS

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26/11/22