

HOW SAFE ARE YOUR VEGGIES PROJECT

January, 2018

Forty eight (48) vegetable samples were collected randomly in the month of January, 2018 from the markets in the areas of Vijayawada, Tirupathi, Hyderabad, and farmer's fields located around Hyderabad.

The samples were analyzed for pesticide residues using validated method with confirmatory analysis on GC-MS/MS and LC-MS/MS at 10 PPB (Parts per Billion) level.

Out of forty eight (48) samples analyzed seventeen (17) samples found contaminated with nineteen pesticide residues (Table-1) and three samples were found above FSSAI and Codex MRLs (Table-2).

Table -1: Details of pesticides detected in vegetables samples

Sl. No.	Collection Point	Sample	Pesticides Detected	Recommended/ Non recommended	Residues (mg/kg)	FSSAI MRL (mg/kg)	Codex MRL (mg/kg)	Limit of Quantification (mg/kg)
1	Hyderabad	Bittergourd	Carbendazim	Non recommended	0.1	0.5	-	0.01
			Sulfotep	Non recommended	0.46	-	-	0.01
			Chloropyrifos	Non recommended	0.02	-	-	0.01
2	Hyderabad	Green chilli-1	Acephate	Non recommended	0.15	-	-	0.01
			Acetamiprid	Recommended	0.07	-	2.00	0.01
			Azoxystrobin	Recommended	0.06	-	1.00	0.01
			Tebuconazole	Recommended	0.02	-	-	0.01
			Quinolphos	Recommended	0.01	-	0.2	0.01
			Triazophos	Non recommended	0.53	-	0.2	0.01
3	Hyderabad	Green chilli-2	Carbendazim	Non recommended	0.32	0.5	-	0.01
			Tebuconazole	Recommended	0.11	-	-	0.01
4	Hyderabad	Littlegourd	Carbendazim	Non recommended	0.02	0.5	-	0.01
			Tebuconazole	Non recommended	0.02	-	-	0.01
5	CIPMC, Hyderabad	Green chilli	Carbendazim	Non recommended	0.21	0.5	-	0.01
			Thiamethoxam	Recommended	0.03	-	-	0.01
			Imidacloprid	Non recommended	0.24	0.3	-	0.01
			Clothianidin	Non recommended	0.02	-	-	0.01
			Chlorantraniliprole	Non recommended	0.05	-	-	0.01
Triazophos	Non recommended	1.56	-	0.2	0.01			
6	CIPMC, Hyderabad	Beans	Acephate	Non recommended	0.05	5.00	-	0.01
7	CIPMC, Hyderabad	Cabbage	Acephate	Non recommended	0.04	2.00	-	0.01
8	CIPMC, Hyderabad	Bittergourd	Acephate	Non recommended	0.24	-	-	0.01
			Carbendazim	Non recommended	0.28	0.5	-	0.01
9	Farmgate, Medipally	Coriander-2	Acetamiprid	Non recommended	0.16	-	-	0.01
			Tricyclozole	Non recommended	0.07	-	-	0.01
10	CIPMC, Hyderabad	Brinjal	Thiacloprid	Recommended	0.01	0.7	-	0.01
11	CIPMC, Hyderabad	Cauliflower	Carbendazim	Non recommended	0.1	0.5	-	0.01
			Imidacloprid	Non recommended	0.05	-	0.5	0.01
			Acetamiprid	Non recommended	0.07	-	0.4	0.01
			Indoxacarb	Non recommended	0.02	-	0.2	0.01
			Novaluron	Non recommended	0.02	-	-	0.01

12	CIPMC, Hyderabad	Tomato	Carbendazim	Non recommended	0.01	0.5	0.5	0.01
13	CIPMC, Hyderabad	Green Chilli	Acephate	Non recommended	0.61	-	-	0.01
			Carbendazim	Non recommended	2.26	0.5	-	0.01
			Imidacloprid	Non recommended	1.51	0.3	-	0.01
			Acetamiprid	Non recommended	0.05	-	2.00	0.01
			Chlorantraniliprole	Non recommended	0.01	-	-	0.01
14	Hyderabad	Capsicum (Organic)	Imidacloprid	Non recommended	0.03	-	-	0.01
			Acetamiprid	Non recommended	0.01	-	-	0.01
15	Tirupathi	Bittergourd	Dimethomorph	Non recommended	0.04	-	-	0.01
16	Vijayawada	Bittergourd	Carbendazim	Non recommended	0.02	0.5	-	0.01
17	Vijayawada	Littlegourd	Carbendazim	Non recommended	0.06	0.5	-	0.01
			Acetamiprid	Non recommended	0.02	-	-	0.01

Table-2: Details of pesticides detected in vegetables samples above FSSAI and Codex MRLs.

Sl. No.	Collection Point	Sample	Pesticides Detected	Recommended/ Non recommended	Residues (mg/kg)	FSSAI MRL (mg/kg)	Codex MRL (mg/kg)	Limit of Quantification (mg/kg)
1	Hyderabad	Green chilli-1	Triazophos	Non recommended	0.53	0.2	-	0.01
2	CIPMC-Hyderabad	Green chilli	Triazophos	Non recommended	1.56	0.2	-	0.01
3	CIPMC-Hyderabad	Tomato	Carbendazim	Non recommended	2.26	0.5	-	0.01
			Imidacloprid	Non recommended	1.51	0.3	-	0.01