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PESTICIDE (PLANT PROTECTION PRODUCT) USE IN TEA FIELDS

(This Circular supersedes Advisory Circular No. PU 1, Serial Nos. 01/12 and 01/15, issued in June 2012 and February 2015 respectively)

1. Introduction

Diseases, insect, mite and nematode pests, and weeds occur in tea, in different stages of the crop, and at different times of the year. Therefore, an integrated approach (Integrated Pest Management: IPM) is recommended for efficient and timely management of pests in tea, which consists of various agronomic, cultural, biological and chemical strategies in a rational and environmental friendly manner. Rational use of fungicides, insecticides, acaricides, nematocides, fumigants and weedicides is a part of integrated management of diseases, insects, mites, nematodes and weeds respectively.

In parallel, it is necessary to strengthen biological systems and improve cultural practices in order to promote the build-up of tolerance in plant and biological-control organisms in the environment, and to prevent the introduction and dissemination of pests, diseases and weeds in tea fields. Also, use of tea cultivars resistant / tolerant to the different diseases and pests is the prime component in the IPM.

As tea is a food commodity for human consumption, there is a growing concern among health-conscious consumers on pesticide residues that may be present in tea.

Therefore, it is advisable to use pesticides in tea fields carefully, in order to minimize the residues in made tea, effects on workers and non-target organisms in the eco-system. Moreover, the cost-effectiveness and the social acceptance of pesticide usage also have to be considered for the sustainability of the tea industry.

The chemicals and their use in tea as Plant Protection Products (PPPs) are subjected to change periodically to meet the requirements of consumers, social and environmental acceptance *etc.* It is extremely necessary to ensure that the pesticide residues in made tea at levels below the Maximum Residue Limits (MRLs) set for different pesticides by different countries.

When PPPs are applied to tea cultivations, it is necessary to strictly adhere to specific Pre-Harvest Intervals (PHI), and bulk green leaf from the sprayed and unsprayed fields or made tea at a ratio of 1:10. This would help dilute and minimize the pesticide residues in the made tea.

2. List of Recommended PPPs

The active substances recommended for control of diseases, insects, mites and nematode pests and weeds in tea plantations by the Tea Research Institute of Sri Lanka, as at February, 2017 and respective MRLs of Japan and the EU are given in the Table 1.

Growers are advised to use only the chemicals listed in Table 1 as per TRI recommendations given in Advisory Circulars PU 2, PU 3 and PU 4 for management of diseases, weeds and insect, mite and nematode pests respectively.

Table 1. List of recommended PPPs by the Tea Research Institute of Sri Lanka

No.	Common name (active ingredient)	Type	MRL for made tea (ppm)		TRI Advisory Circular No.
			Japan	E U	
1	Copper hydroxide	F	Exempted	40 (as Cu)	PU2
2	Copper oxide	F	Exempted	40 (as Cu)	PU2
3	Copper oxychloride	F	Exempted	40 (as Cu)	PU2
4	Hexaconazole	F	0.05	0.05	PU2
5	Propiconazole	F	0.10	0.10	PU2
6	Tebuconazole	F	50	0.05	PU2
7	Diazinon	I	0.10	0.05	PU4
8	Fipronil	I	0.002	0.005	PU4
9	Sulfur	A	Exempted	Exempted	PU4
10	Metam Sodium	N	0.10	0.02	PU4
11	Diuron	W	1	0.05	PU3
12	MCPA	W	-	0.10	PU3
13	Oxyfluorfen	W	-	0.05	PU3

F - Fungicide; I – Insecticide; A – Acaricide; N - Nematicide; W – Weedicide

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