

237th Experiments & Extension Forum

Keynote Address

I Sarath B Abeysinghe
Director, Tea Research Institute



Tea Research Institute of Sri Lanka

Non-Tariff Trade Barriers



Detection of MCPA Residues



Detection of MCPA Residues in Japan

Detection of MCPA residues continued in Japan during the year 2018 & 2019.

Auction date	23/1/19	Auction date	8-9/1/19	Auction date	8-9/1/19
GARDEN MARK	MCPA(ppm)	GARDEN MARK	MCPA (ppm)	GARDEN MARK	MCPA (ppm)
TILLYRIE	0.010	SOMERSET	0.013	CRAIGHEAD	0.030
ADISHAM	0.013	BAMBRAKELLY	0.026	CRAIGHEAD	0.009
NORWOOD	0.011	EILDON HALL	0.019	CRAIGHEAD	Trace
DIYAGAMA WEST	0.010	DIYAGAMA EAST	0.020	CRAIGHEAD	Trace
GLENUGIE	0.015	KAIPOOGALLA	0.010	RILAGALA	0.011
MAHAGASTOTTE	0.015	NEW MEDDECOMBRA	0.017	WINDSORFOREST	0.014
NAYABEDDE	0.033	STRATHSPEY	0.026	KENILWORTH	0.019
LUCKYLAND	0.022	LOGIE	0.032	KENILWORTH	0.080
KIRKLESS	0.012	MOCHA	0.024	IMBOOLPITTIA	0.022
SHANNON	0.014	MOCHA	0.019	DARTRY VALLEY	0.711
SHANNON	0.123	MOCHA	0.024	HATALE	0.019
DUNSINANE CTC	0.010	ST. CLAIR	0.011	HATALE	0.116
MT. VERNON	0.025	BAMBRAKELLY	0.103	ORANGE FIELD	0.026
DUNSINANE CTC	0.010	BAMBRAKELLY	0.167	DARTRY VALLEY	0.035
EL TEB	0.010	TYMAWR	0.087	DARTRY VALLEY	0.018
EL TEB	0.012	TYMAWR	0.066	DARTRY VALLEY	0.023
MAHADOWA	0.010	SHANNON	0.016	DARTRY	0.033
		HIGH FOREST	0.071	HATALE	0.012
		RAGALLA	0.029	HATALE	0.013
		RAGALLA	0.044	DARTRY	0.016
		GONAPITIYA	0.195	DARTRY	0.011
		LUCKYLAND	0.015	DARTRY	0.019
		RAGALLA	0.047	DARTRY	0.018
		STRATHSPEY	0.020	DARTRY	0.023
		IMBOOLPITTIA	0.036	DARTRY	0.021
		IMBOOLPITTIA	0.079		



Detection of MCPA Residues in Japan

TRI Interventions:

To determine the realistic residue levels **under GAP and GLP** practices

Field trials - Declining – St Coombs Estate – **Completed**
(Wet Season) Regional – Ratnapura/Hantana/Passara – **Completed**
 Analysis of samples for MCPA residues - **completed**

Field trials - Declining – St Coombs Estate – **In Progress**
(Dry Season) Regional – Ratnapura/Hantana/Passara – **In Progress**
 (To be completed by end February 2019)



Tea Research Institute of Sri Lanka

Detection of MCPA Residues in Japan

TRI Interventions:

TRI has removed MCPA from the TRI recommended pesticide list on 29th January 2019

All tea growers are strictly advised to refrain from the use of MCPA in tea fields until further notice.

As at present, MRLs remain as:

Country	MRL (ppm)
Japan	0.01
EU	0.1



Tea Research Institute of Sri Lanka

Detection of Hexaconazole Residues



Tea Research Institute of Sri Lanka

7

Detection of Hexaconazole Residues in Japan

Auction date	23/1/19	Auction date	8-9/1/19	Auction date	8-9/1/19
GARDEN MARK	Hexaconazole (ppm)	GARDEN MARK	Hexaconazole (ppm)	GARDEN MARK	Hexaconazole (ppm)
TILLYRIE	N.D.	SOMERSET	Trace	CRAIGHEAD	0.019
ADISHAM	Trace	BAMBRACKELLY	N.D.	CRAIGHEAD	0.015
NORWOOD	N.D.	EILDON HALL	N.D.	CRAIGHEAD	0.014
DIYAGAMA WEST	N.D.	DIYAGAMA EAST	N.D.	RILAGALA	Trace
GLENUGIE	N.D.	KAIPOOGALLA	N.D.	WINDSORFOREST	N.D.
MAHAGASTOTTE	N.D.	NEW MEDDECOMBRA	N.D.	KENILWORTH	N.D.
NAYABEDDE	N.D.	STRATHSPEY	N.D.	KENILWORTH	N.D.
LUCKYLANDN.D.	N.D.	LOGIE	N.D.	IMBOOLPITIA	Trace
KIRKLESS	N.D.	MOCHA	Trace	DARTRY VALLEY	0.036
SHANNON	N.D.	MOCHA	Trace	HATALE	Trace
SHANNON	Trace	MOCHA	N.D.	HATALE	0.007
DUNSINANE CTC	Trace	ST. CLAIR	N.D.	ORANGE FIELD	Trace
MT. VERNON	N.D.	BAMBRACKELLY	Trace	DARTRY VALLEY	Trace
DUNSINANE CTC	Trace	BAMBRACKELLY	Trace	DARTRY VALLEY	0.006
EL TEB	0.009	TYMAWR	N.D.	DARTRY VALLEY	0.005
EL TEB	0.009	TYMAWR	N.D.	DARTRY	Trace
MAHADOWA	Trace	SHANNON	Trace	HATALE	0.006
		HIGH FOREST	N.D.	HATALE	0.005
		RAGALLA	N.D.	DARTRY	Trace
		RAGALLA	N.D.	DARTRY	Trace
		GONAPITIYA	N.D.	DARTRY	Trace
		LUCKYLAND	N.D.	DARTRY	Trace
		RAGALLA	N.D.	DARTRY	Trace
		STRATHSPEY	N.D.	DARTRY	Trace
		IMBOOLPITIA	Trace		
		IMBOOLPITIA	0.025		



Tea Research Institute of Sri Lanka

Detection of **Hexaconazole** Residues in Japan

TRI Interventions:

To identify the realistic residue levels **under GAP and GLP** conditions

Field trials - Declining – St Coombs Estate – **Completed**
(Wet Season) Regional – Ratnapura/Hantana/Passara – **Completed**
 Analysis of samples for Hexaconazole residues - **completed**

Field trials - Declining – St Coombs Estate – **In Progress**
(Dry Season) Regional – Ratnapura/Hantana/Passara – **In Progress**
 (To be completed by end February 2019)



Tea Research Institute of Sri Lanka

Detection of **Hexaconazole** Residues in Japan

TRI Interventions:

TRI issued a cautionary note to all tea growers on 11th January 2018.

Not to use Hexaconazole in mature tea fields

As at present, MRLs remain as:

Country	MRL (ppm)
Japan	0.01
EU	0.05



Tea Research Institute of Sri Lanka

Glyphosate for Tea and Rubber Sectors

- Glyphosate was made available for tea and rubber sectors from December 2018 through Ceypetco.
- TRI issued recommendations for RPCs and estates above 50ac on request to Ceypetco.
- From 11/12/18 to 24/01/19 TRI and RRI recommended 205,913 liters of Glyphosate for tea (118,115L) and rubber (87,798L). However only 74,506 liters were collected from Ceypetco.



Tea Research Institute of Sri Lanka

Glyphosate Residue Detections in 2018

MRL for Glyphosate:

Country	MRL (ppm)
Japan	1
China	1
EU	2

Glyphosate residues detected by Chinese customs in December 2018

Test Result	ppm
1 st	1.04
2 nd	0.94

Teas were produced in July to November 2018 –
Glyphosate ban was in force



Tea Research Institute of Sri Lanka

Recent Residue Detections in Sri Lankan Origin Teas

- a. 2,6 - DIISOPROPYLNAPHTHALENE (2,6-DIPN)-
Residues detected in 39 garden marks covering all elevations
- b. Fluazifop-P, Chlorpyriphos
Uva Estate
- c. Pentachlorophenol
Low Country
- d. Mycotoxin, Ochratoxin A (OTA)
In blends



Tea Research Institute of Sri Lanka

Determination of Sugar Levels in Made Tea

ISO 3720 and ISO 11287 specifies the basic requirements of Black and Green tea

All Sri Lankan tea exports should conform to these standards

Addition of any substances during Processing is not permitted

Certain producers use sugar during processing –

To alter the appearance and heaviness of made tea & liquor quality

TRI was requested to determine baseline data on sugar –

To set maximum levels for sugar in tea



Tea Research Institute of Sri Lanka

Determination of Sugar Levels in Made Tea

1. 360 samples were collected from low country tea growing areas representing 36 factories and 10 grades
2. Sucrose, Glucose and Fructose levels were analysed by HPLC
3. Maximum levels for Sucrose, Glucose and Fructose determined
4. Implementation of maximum levels for sugar **will be done by SLTB**



Tea Research Institute of Sri Lanka

Tea Production in Sri Lanka – Mnkg (2017 & 2018)

Elevation	2017	2018	Change	% Change
High	64.64	64.81	0.16	0.25
Medium	45.65	47.02	1.37	3.00
Low	197.42	192.01	-5.41	-2.74
Total	307.72	303.84	-3.88	-1.26

Source, Statistical Bulletin, SLTB



Tea Research Institute of Sri Lanka

16

World Crop Statistics – Tea Production (Mnkg)

Country	2017	2018	Change	% Change
North India (up to Nov)	1032.1	1058.3	26.2	2.54
South India (up to Nov)	218.2	199.4	-18.8	-8.62
Kenya (up to Oct)	346.9	395.5	48.6	14.01
Sri Lanka (up to Dec)	307.7	303.8	-3.9	-1.26
Bangladesh (up to Nov)	67.7	66.7	-1.0	-1.48
Malawi (up to Dec)	45.6	50.6	5.0	10.96

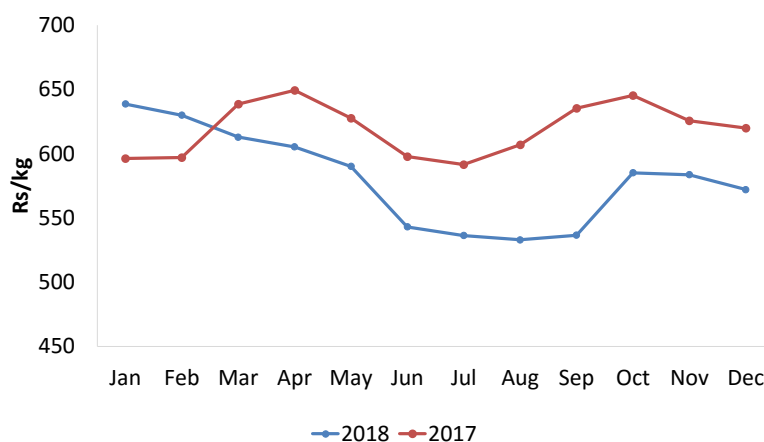
Source, Statistical Bulletin, SLTB



Tea Research Institute of Sri Lanka

17

Fluctuation of Tea Prices at Colombo Auction



Source, Statistical Bulletin, SLTB



Tea Research Institute of Sri Lanka

18

Tea Prices in Different Auction Centers – 2017 & 2018 up to November

Auction Centers	Price (US\$/kg)		
	2017	2018	Change (2017 vs 2018)
Kolkata	2.46	2.46	(0.00)
Cochin	1.82	1.81	(0.01)
Chittagong	2.41	3.11	0.70
Mombasa	2.82	2.45	(0.37)
Colombo	4.07	3.64	(0.43)
Guwahati	2.16	2.15	(0.02)
Malawi	1.84	1.84	0.01
World	2.93	2.71	(0.22)

Source, Statistical Bulletin, SLTB



Tea Research Institute of Sri Lanka

19

Sri Lankan Tea Exports (Mnkg)

Type of Tea	2017		2018	
	Qty (Mnkg)	FOB Price (Rs/kg)	Qty (Mnkg)	FOB Price (Rs/kg)
Tea in Bulk	114.8	732.18	111.1	731.44
Tea in Packets	123.6	759.17	119.6	765.24
Tea in Bags	20.0	1321.55	19.8	1389.19
Green Tea	4.6	1537.69	4.2	1744.14
Total	265.0	807.12	257.0	819.68

Source, Statistical Bulletin, SLTB



Tea Research Institute of Sri Lanka

20

Out Break of Fall Army Worm (FAW)

FAW is an invasive insect pest not recorded in Sri Lanka - cause significant yield losses mainly for maize, rice, sorghum, millet, sugarcane, vegetable crops and cotton



Tea has not been recorded as a host for FAW

To control the pest, DOA has issued gazette notifications to restrict
 (i) transportation of maize stubble
 (ii) planting of maize temporarily



Tea Research Institute of Sri Lanka

Out Break of Fall Army Worm (FAW)

To notify FAW infestation contact TRI and DOA through 1920

The Department of Agriculture (DOA) provides assistance in identifying affected lands and control measures

National Task Force is established under Ministry of Agriculture to manage FAW outbreak. TRI, RRI, SRI and CRI are members and MPI coordinates the activities



Tea Research Institute of Sri Lanka

