INSTITUTE OF PLANT PROTECTION – NATIONAL RESEARCH INSTITUTE
SOŚNICOWICE BRANCH
Ul. GLIWICKA 29, 44-153 SOŚNICOWICE, POLAND
phone: (+48) 32 238 75 84, fax. (+48) 32 238 75 03
e-mail: ior@ior.gliwice.pl www.ior.gliwice.pl

Author:

Stanislaw Stobiecki

SAMPLING FOR QUALITY MONITORING OF PLANT PROTECTION PRODUCTS

CEUREG FORUM XII

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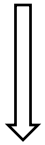
Organized by: Ministry of Agriculture and Rural Development, Hungary

Samples are taken by inspectors from the National Plant Protection and Seed Inspection Services throughout the country

according to an annual plan

The Main Inspectorate sets up a plan



16 Provincial Inspectorates

(each Provincial Inspectorate is responsible for taking a defined number of samples)

Rule:

Samples are in the form of individual containers selected randomly from the market (0,1-1 kg, max up to 5 kg/ litre)

2008 SAMPLING SCHEDULE

No.	Province	Total	Scheduled Monitoring		Random Monitoring	Month					
			Monitored substance	No. of samples for scheduled inspections	No. of samples for random inspections	V	VI	VII	VIII	IX	X
1.	dolnoslaskie	23	captan	8	15	8				7	8
2.	kujawsko-pomorskie	16			16		6		10		
3.	lubelskie	20	glyphosate	7	13	7		6		7	
4.	lubuskie	12			12		5		7		
5.	lodzkie	17			17		5	5	7		
6.	malopolskie	19	chloromequat chloride	8	11			9		5	5
7.	mazowieckie	26	MCPA	5	21		7		9	10	
8.	opolskie	10			10			5			5
9.	podkarpackie	19			19		6	6			7
10.	podlaskie	14	dimethoate	3	11	7			7		
11.	pomorskie	16	chlorsulfuron	3	13	8		8			
12.	slaskie	14	dicamba	3	11		7				7
13.	swietokrzyskie	14	chlorsulfuron	3	11	9				5	
14.	warminsko-mazurskie	15	MCPA	5	10			8		7	
15.	wielkopolskie	24			24	6			8		10
16.	zachodniopomorskie	16	glyphosate	7	9		8			8	
	TOTAL	275		52	223	45	44	47	48	49	42

The estimated total of ppp samples to be taken in 2008 is 350, including 75 taken as a result of interventions.

FORMULATIONS THAT REQUIRE SPECIAL TREATMENT WHILE SAMPLED FROM LARGER CONTAINERS

SC – Suspension Concentrate

CS – Capsule Suspension

SC – a stable suspension of dispersed active ingredient particles, which can be combined with other active solvents, intended for dilution in water before use.

CS – capsule suspension in a liquid, intended for dilution in water before use.

EO – Emulsion, water-in-oil

EW – Emulsion, oil-in-water

EO – Fluid heterogeneous preparation made up of an active ingredient in aqueous solution and emulgated in water.

EW – Fluid heterogeneous preparation made up of an active ingredient in organic solvent and emulgated in water.

FORMULATIONS THAT REQUIRE SPECIAL TREATMENT WHILE SAMPLED FROM LARGER CONTAINERS (cont'd)

FS – Flowable concentrate for seed treatment

FS – Stable suspension for application to the seed either directly or after dilution.

SE – Suspo-emulsion

SE – A fluid heterogeneous preparation consisting of a stable dispersion of active substance(s) in the form of solid particles and of fine globules in continuous water phase, intended for dilution in water before use.

FORMULATIONS THAT REQUIRE SPECIAL TREATMENT WHILE SAMPLED FROM LARGER CONTAINERS (cont'd)

SC – This type of preparation can sediment (solidify).

The process can occur at various rates, depending on storage conditions. Sedimentation proceeds faster in high temperatures during the summer and freezing temperatures in the winter. Preparations should be well mixed for 10-20 minutes.

CS – Capsules may condense at the bottom of the container.

Preparation can turn into gel. The processes occur faster in extreme differences in storage temperatures (see above).

EO and EW – Separation of layers may occur.

Also possible is crystallization followed by incomplete re-crystallization. It is necessary to shake the container really well. The processes occur faster in extreme differences in storage temperatures.

FORMULATIONS THAT REQUIRE SPECIAL TREATMENT WHILE SAMPLED FROM LARGER CONTAINERS (cont'd)

FS – This type of preparation can condense and solidify. Solidification proceeds faster in improper storage conditions. It is necessary to shake containers well.

SE – This type of preparation can undergo separation and sedimentation. It is heterogeneous even in good storage conditions. It is necessary to shake the container vigorously prior to sampling.

MOST COMMON SAMPLING PROBLEMS

- Sampling from containers over 5 kg/litre
- Proper way of sampling plant protection products which are most important for plant protection.
- Proper labeling and securing of samples during transport.
- Proper documentation.
- Training for sampling inspectors and equipping them with sufficient sampling instructions.
- On-line connection to a database at the laboratory analyzing the samples (in Poland the system is operational since 2007).