



'Check Your Scope' Helping Labs to Expand their Scope of Targeted Pesticides



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INTRODUCTION

The EU-RL SRM has developed a pesticide ranking list for fruits and vegetables to assist the decision-making process when it comes to enlarging the scope of pesticides and metabolites targeted in laboratories. The pesticide ranking list is based on a points system which takes into account various aspects indicating the relevance of pesticides such as toxicology, residue findings in food samples, pesticide use, and potential unauthorized use in agriculture. The data used for the pesticide ranking were mainly derived from EFSA, CRL Data Pool (www.crl-pesticides-datapool.eu) and Pesticides-Online (www.pesticides-online.com).

RISK-BASED PESTICIDE PRIORITY LIST

In the points system the following aspects, considered to be contributing to the overall risk-relevance of pesticides, were taken into account: (a) Toxicological data considering the toxicological end-points (ADI, ARfD) as well as information concerning endocrine disruption activity; (b) Residue situation in crops considering the frequency of detections in fruits and vegetables reported by various labs in the last years. Additional emphasis is given to residues detected in food in the last two years as well as on RASFF-notification releases; (c) Agricultural usage data considering pesticide approvals and registrations as far as available. Pesticides with a high potential of unauthorized usage as well as persistent pesticides expected to be encountered in samples via environmental pollution are also taken into consideration. More details are given in figure 1.

PESTICIDE SCOPE OF LABS

During the 2nd Comprehensive Pesticide Lab Survey [1] all official labs within the EU Member States, other EEA countries and the EU candidate countries were asked to indicate their current pesticide scope targeted in different sample types. 188 laboratories reported their pesticide scope routinely targeted in fruits and vegetables. In May 2010 the calculated pesticide ranking list, supporting information and the individual pesticide scope for fruits and vegetables were sent to each participating laboratory.

CHECK YOUR SCOPE-SERVICE

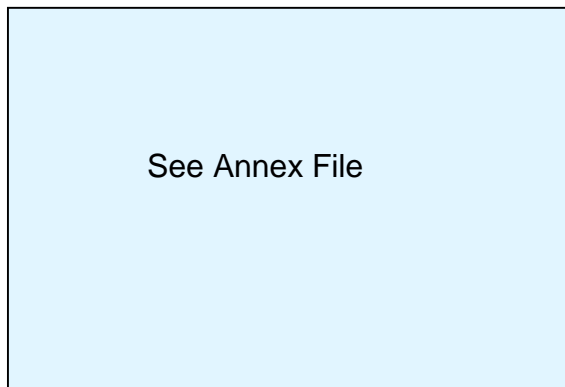
By comparing their pesticide scope with the ranking list, laboratories are able to identify analytical gaps and gain the ability to judiciously adjust their analytical scope in a target-oriented fashion ('Check Your Scope'). As a multitude of data collections containing data that may change with time and that are not comprehensive were used to construct the list, the ranking list is prone to errors and should serve as a starting point and for orientation. The final judgment should always be at the discretion of experts.

POINTS SYSTEM

Risk Group	Sum Points	Risk Factor	Data Source	Points	Rules
Toxicology	300	ADI	EFSA (if missing Codes)	100	No entry (20 points) not listed (100 points) 0.01 to $= 0.1$ (50 points) 0.1 to $= 1$ (20 points) 1 to $= 5$ (10 points) 5 to $= 10$ (5 points) 10 or more (0 points)
		ARfD	EFSA (if missing Codes)	100	No entry (20 points) not listed (100 points) 0.001 to $= 0.01$ (50 points) 0.01 to $= 0.1$ (20 points) 0.1 to $= 1$ (10 points) 1 to $= 5$ (5 points) 5 to $= 10$ (2 points)
		Endocrine disruption	EFSA	100	Where evidence for ED effect: 100; evidence (C ₁ - 1) detected, ED effect (C ₂ - 2): 75; potential evidence of ED effect (C ₃ - 3): 50; no substance (0)
Pesticide Residue Findings	400	Findings in ALL commodities 2006- based on No. of positives	Pesticides-online	100	No. of positive findings (N _{findings} - no. of positive findings (N _{max})) * 100
		Findings in ALL commodities 2006- Penalty points	Pesticides-online	PENALTY (max. 40)	where N _{findings} $= 2$ and Number of samples (N _s) 1000-2000 (40 points) where N _{findings} $= 3$ and N _s 2000-5000 (40 points) where N _{findings} $= 4$ and N _s >5000 (50 points)
		Findings in MONITORING commodities 2006- based on positives in %	EFSA - CCP 2008	120	N _{findings} * 120
		Findings in ALL commodities 2008/2009 (Trend) based on positives in %	Pesticides-online	80	N _{findings} * 80
		Findings in ALL commodities 2008/2009 (Trend) Penalty points	Pesticides-online	PENALTY (max. 40)	where N _{findings} $= 2$ and N _s 1000-2000 (40 points) where N _{findings} $= 3$ and N _s 2000-5000 (40 points) where N _{findings} $= 4$ and N _s >5000 (50 points)
Pesticide Usage	200	RASFF notifications 2008-2010	CRL-Datapool	100	Number of RASFF notifications * 100
		INEM INVOICELIST	CRL-Datapool	50	N _{INEM} * 50; PENALTY (max. 50) points; C ₁ * 30; C ₂ * 20; C ₃ * 10; C ₄ * 5 points
		Registered in EU and 10 other countries	CRL-Datapool	100	Based on No. of registrations and importance of country in EU: C ₁ FR: 70 points; C ₂ DE: 10 points; C ₃ IT: 5 points; AT: 3 points; C ₄ UK: 3 points; MT: 1 point.
Miscellaneous candidates and environmental contaminants "bonus"	Pesticides-online and CRL-Datapool	60	Based on No. of registrations and importance of country in EU: FR: 15 points; MA: 5 points; NZ: 2 points. Pesticides included from Annex I BSMH (CVT and restricted ones) but frequently encountered in samples of EU origin in the last two years (N _{max} 100) * 2 and more than 5 (N _{max} 50) points.		
Total	1000			1000	

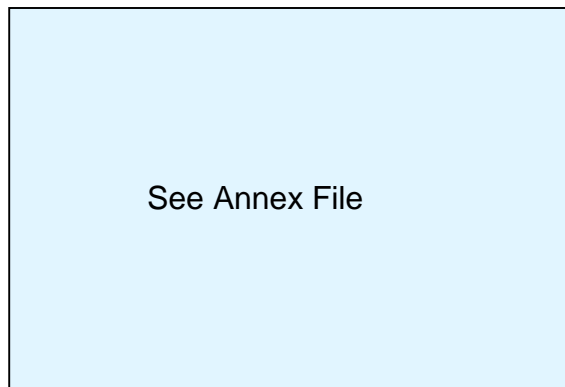
Figure 1 Details on points system

CHECK YOUR SCOPE



FEEDBACK

A feedback-survey was conducted among the recipients of the 'Check Your Scope'-list in order to evaluate its usefulness for the labs.



LITERATURE

[1] <http://www.crl-pesticides.eu>; search for "survey"
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Check Your Scope

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