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

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EURL for Pesticide Residues using Single Residue Methods

Establishment of a Pesticide Ranking List

Using the information from the following sources:

- *CRL-DataPool*
- *EU-Monitoring Results (from EFSA) &*
- *Pesticides-Online*

RISK-BASED PESTICIDE RANKING-LIST:

Based on a point-system considering the following factors:

- **TOXICOLOGY** (ADI, ARfD, endocrine disruption),
- **DETECTIONS IN CROPS** (data from numerous labs)
- **APPROVALS and AGRICULTURAL USE of pesticides**
- **RASFF-notifications**
- **MISUSE and CONTAMINATION potential**

Successfully used in design of EU coordinated monitoring program

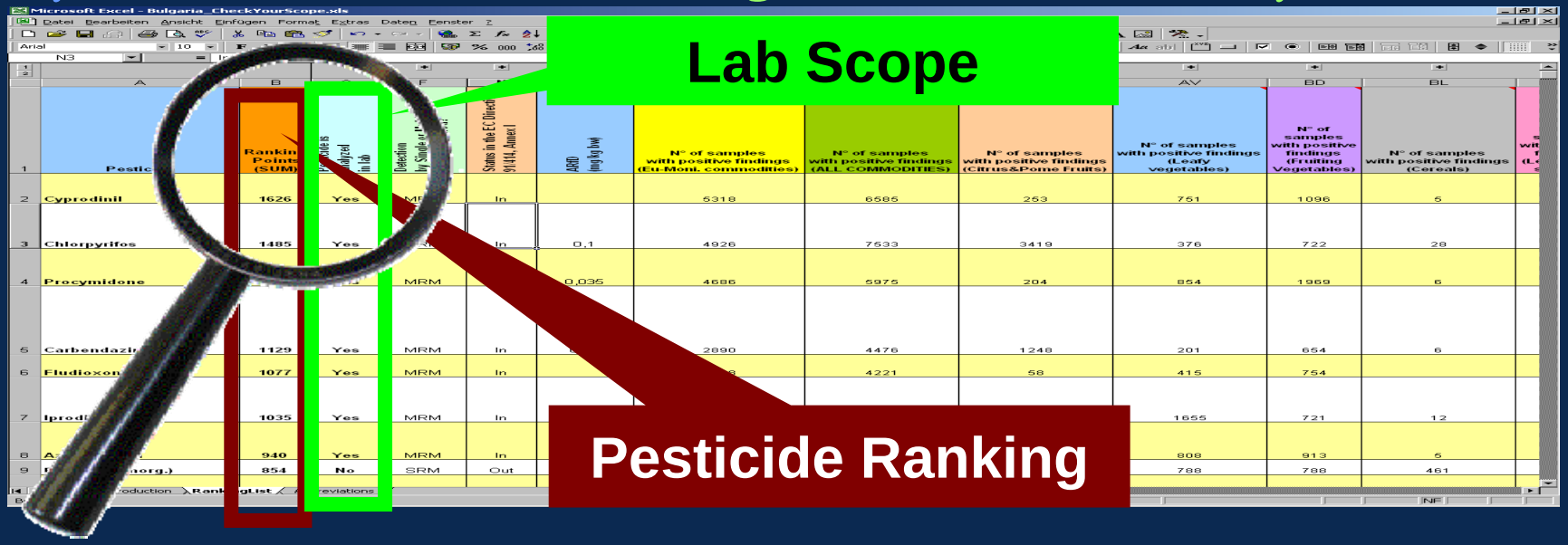
Pesticide Ranking List - Points System

Risk Group	Sum Points	Risk Factor	Data Source	Points	Rules
Toxicology	350	ADI	EFSA	100	No entry (25 points); x<=0.001(100 points) 0.001<x<=0.01 (50 points) 0.01<x<=0.1 (20 points) 0.1<x<=0.5 (10 points) 0.5<x<=2 (4 points) x>2 (0 points)
		ARfD	EFSA	150	No entry (30 points); x<=0.005(150 points) 0.005<x<=0.025 (75 points) 0.025<x<=0.1 (20 points) 0.1<x<=0.5 (10 points) 0.5<x<=2 (4 points) x>2 or non allocated (0 points)
		Endocrine disruption	EFSA	100	Where evidence for ED effect: 100; evidence (Cat. 1) of/potent. ED effect (Cat. 2): 75; potential evidence of ED effect (Cat. 2): 50; no evidence: 0
Pesticide residue findings	400	Findings in ALL commodities 2005- Based on **No of positives**	Pesticides-online	100	No of positive findings (Nf)/max. no of positive findings (Nfmax) * 100
		Findings in ALL commodities 2005- Penalty points	Pesticides-online	PENALTY (max -50)	where Nf<=2 and Number of samples (Ns) 1000-2000 (-50 points) where Nf<=4 and Ns 2000-5000 (-50 points) where Nf<=6 and Ns >5000 (-50 points)
		Findings in MONITORING commodities 2008- Based on **positives in %**	EFSA - CCP 2008	120	%f/%fmax *80 (%fmax =8.3 = detection frequency of the most frequently found MRM-pesticide Boscalid); Note: SRM pesticides with higher det. frequency leveled out at 150 points
		Findings in ALL commodities 2008/2009 Based on **positives in %**	Pesticides-online	80	%f/%fmax *80 (%fmax = 14 = detection frequency of the most frequently found MRM-pesticide Boscalid); Note: SRM pesticides with higher det. frequency leveled out at 100 points
		Findings in ALL commodities 2007/2008 Penalty points	Pesticides-online	PENALTY (max -50)	where Nf<=2 and Ns 1000-2000 (-50 points) where Nf<=4 and Ns 2000-5000 (-50 points) where Nf<=6 and Ns >5000 (-50 points)
		Findings in ALL commodities 2007/2008 Based on **positives in %**	DE&ES Data	50	%f/%fmax *50 (%fmax = 10 = detection frequency of the most frequently found MRM-pesticide Boscalid); Note: SRM pesticides with higher det. frequency leveled out at 75 points
		RASFF notifications 2008-2010	CRL-Datapool	50	Number of RASFF / NRASFFmax * 50
Pesticide Usage	250	91/414 IN/OUT-List	CRL-Datapool	50	IN =100 points, PENDING=100 points, OUT+resubmitted= 100 points; OUT= 0 points,
		Registrations in EU and 10 other countries	CRL-Datapool	100	Based on No of registrations and importance of country (e.g ES, IT, FR: 12 points, DE: 10 points; CL 5 points; AT: 3 points ; CY: 2 points; MT: 1 point)
		Listed as OUT, but registered in 3rd countries	CRL-Datapool	40	Based on No of registrations and importance of country (e.g TR 10 points, MA 5 points, NZ 2 points)
		Misuse candidates and environmental contaminant "bonus"	Pesticides-online and CRL-Datapool	60	Pesticides excluded from Annex I 91/414 (OUT escl. resubmitted ones), but frequently encountered in samples of EU-origin in the last two years (Nf/Ns*100>0.2 and more than 5 findings) get 60 points
Total	1000			1000	

Pesticide GROUP (can be used as a filter to isolate related compounds)	TOTAL RANKING POINTS for GROUP	incl. in Survey	PESTICIDE NAME	Covered by Your Lab (Survey entry)	TOTAL RANKING POINTS for COMPOUND	Click on (+) above for detailed POINTS	Click on (+) above for ANAL INFO and PROP.	EU-RESIDUE DEFINITION PLANT	ANNEX I EU 91/414 STATUS	INCLUSION YEARS IN CCP	CCP 2010 details	Click on (+) above for TOX INFO	Sum of Rapid Alerts (2006 ff)	Click on (+) above for info on RESIDUE FINDINGS	No countries authorized (EU, II=27)
Dimethoate/Omethoate	654	Yes	Omethoate	x	654			Dimethoate (sum of dimethoate and omethoate expr. as dimethoate)	OUT	2001; 2002; 2003; 2004; 2006; 2007; 2008; 2009; 2010; 2011; 2012	Incl.		50		26
Dimethoate/Omethoate	654	Yes	Dimethoate	x	497			Dimethoate (sum of dimethoate and omethoate expr. as dimethoate)	IN	2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012	Incl.		45		26
Dimethoate/Omethoate	654	Yes	Dimethoate/Omethoate (sum)	x	268			Dimethoate (sum of dimethoate and omethoate expr. as dimethoate)	IN	2001; 2002; 2003; 2004; 2006; 2007; 2008; 2009; 2010; 2011; 2012	Incl.		9		26
Procymidone	467	Yes	Procymidone	x	467			Procymidone (R)	OUT	2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012	Incl.		10		0
Cyhalothrin	466	Yes	Cyhalothrin, lambda-	x	466			Lambda-Cyhalothrin (F) (R)	IN	1999; 2000; 2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012	Incl.		6		25
Oxamyl	458	Yes	Oxamyl	x	458			Oxamyl	IN	2007; 2008; 2009; 2010; 2011; 2012	Incl.		45		16
Chlorpyrifos	447	Yes	Chlorpyrifos	x	447			Chlorpyrifos (F)	IN	1999; 2000; 2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012	Incl.		0		20
Flusilazole	430	Yes	Flusilazole	x	430			Flusilazole (F) (R)	IN	2008; 2009; 2010; 2011; 2012	Incl.		0		16
Iprodione	430	Yes	Iprodione	x	430			Iprodione (R)	IN	1999; 2000; 2001; 2002; 2003; 2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012	Incl.		0		23

“Check Your Scope”

Comparison: Pesticide Ranking List vs. Lab-Scope …



…allows labs to LOCALIZE GAPS and to thoughtfully OPTIMIZE THE SCOPE OF TARGET PESTICIDES/METABOLITES

Info on <u>analytical behavior of pesticides</u> also provided to allow assessment of PRACTICABILITY & EFFORT:BENEFIT RATIO

Yet to come:

- ***ON-LINE “CHECK YOUR SCOPE” based on a GENERIC RANKING LIST***
- ***ON-LINE generation of lab-specific CUSTOMIZED RANKING LISTS***

Its not only about collecting & displaying data…

but also…

about processing it in a way that would allow the

QUICK EXTRACTION OF PRACTICAL & VALUABLE ANSWERS…

„Check Your Scope“ - Feedback

Question:··How·would·you·rate·the·idea·of·the·'Check·Your·Scope'-service·overall?¶

Answer¤		Response¤	%¤
Very·Useful¤		84¤	41%¤
Useful¤		100¤	49%¤
Neutral¤		18¤	9%¤
Less·usefull¤		1¤	0%¤
Not·useful¤		0¤	0%¤
Total¤		203¤	100%¤

90%

Question:··How·valuable·do·you·consider·the·'Check·Your·Scope'-list·when·it·comes·to·enlarge·the·scope·of·analytes·in·your·lab?¶

Answer¤		Response¤	%¤
Very·valuable¤		73¤	36%¤
Valuable¤		102¤	50%¤
Neutral¤		27¤	13%¤
Less·valuable¤		1¤	0%¤
Not·valuable¤		0¤	0%¤
Total¤		203¤	100%¤

86%

„Check Your Scope“ - Service

→ Risk-based pesticide priority list (FV)

→ Collection of pesticide scopes of labs

→ Gaps in the scope of labs were identified & communicated

→ help labs to reasonably enlarge the scope of pesticides