

### 3.1.4 METHIDATHION (051)

On the basis of public health concerns raised by the EU regarding possible short-term dietary exposure above the ARfD, methidathion was moved up from the 2018 to the 2016 schedule for re-evaluation under the periodic review programme of CCPR. Methidathion was first evaluated in 1972 and evaluated for residues in subsequent years, the last being in 1994. In 1997, JMPR established an ARfD of 0.01 mg/kg bw for methidathion, on the basis of a NOAEL of 0.11 mg/kg bw (the highest dose tested) for inhibition of erythrocyte acetylcholinesterase (AChE) activity in humans and a safety factor of 10. Refinement of the current ARfD is unlikely to be possible based on available data.

The procedure for estimating short-term dietary intake was implemented by JMPR in 2001. The preliminary estimates of short-term intakes performed by the present Meeting using Codex MRLs established in a variety of crop food commodities and foods of animal origin indicate a potential exceedance of the ARfD for the general population and for children by more than an order of magnitude.

On this basis, the Meeting agreed that the inclusion of methidathion in the next JMPR call for data was appropriate. The Meeting noted that this compound is no longer supported by the manufacturer and that, at the moment, no commitment was forthcoming from Codex Member States to submit data.

### 3.1.5 PROPICONAZOLE (160)

Propiconazole was last evaluated by the JMPR in 2014. The residue definition for plant and animal commodities is *propiconazole* for compliance with the MRL and *propiconazole plus all metabolites convertible to 2,4-dichlorobenzoic acid, expressed as propiconazole* for the estimation of dietary intakes.

The current Meeting received a concern form from the USA regarding the lack of a maximum residue level recommendation for propiconazole for wheat, oats and barley. The Meeting re-evaluated the trials submitted in 2014 and reconsidered its previous recommendation.

In the USA, GAP for propiconazole in barley, oats and wheat, is for 2 applications at 0.125 kg ai/ha, the second being at least 14 days after an early season application and should not be performed after full head emergence, i.e., after Feekes 10.54, which corresponds to BBCH 71. Trials submitted to the 2014 JMPR and considered at GAP (last application done up to BBCH 73) are shown in Table 1.

Table 1 Residues from trials conducted with propiconazole in barley, oats and wheat in the USA following 2 applications of propiconazole (JMPR, 2014)

Region	Variety	Application		DAT (days)	Residues (mg/kg)		Trial Ref.
		kg ai/ha	BBCH growth state		Propiconazole	Total propiconazole	
Barley							
Minnesota	Spring Rawson	0.15	41 and 71	44	0.011, < 0.01 (0.01)	0.188, 0.57 (0.38)	C09-9063
N. Dakota, Northwood	Pinnacle	0.15	39 and 71	33	< 0.01	< 0.05	C13-9062
				40	< 0.01	0.0555	
				47	< 0.01 (2)	0.053, 0.066 (0.06)	
				54	< 0.01	0.0585	
N. Dakota, Carrington	Pinnacle	0.15	37 and 69	48	< 0.01 (2)	0.060, 0.072 (0.07)	C13-9065
S. Dakota,	Lacey	0.15	43-49 and 71-73	33	< 0.01 (2)	0.13 (2)	C16-9064
Nebraska	Spring, Baronesse	0.15	43 and 59	29	< 0.01 (2)	< 0.05 (2)	C33-9066
Colorado	Moravian 37	0.15	55 and 71	25	0.175, 0.21 (0.98)	0.425, 0.516 (0.47)	W12-9067

## Responses to specific concerns

Region	Variety	Application		DAT (days)	Residues (mg/kg)		Trial Ref.
		kg ai/ha	BBCH growth state		Propiconazole	Total propiconazole	
Virginia	Nomini	0.15	55 and 71	30	0.144, 0.137 (0.14)	0.589, 0.765 (0.68)	E07-9061
California	UC937	0.15	69 and 71	49	1.3, 0.933 (1.1)	2.22, 2.02 (2.1)	W32-9068
Oat							
Minnesota	Morton	0.15	41 and 71	48	0.035, 0.044 (0.04)	0.117, 0.31 (0.11)	C09-9084
N. Dakota, Ayr	Morton	0.15	52 and 70	44	0.054, 0.067 (0.06)	0.269, 0.173 (0.22)	C12-9086
N. Dakota, Gardner	Morton	0.15	72 and 70	11	0.117	0.337	C12-9087
				18	0.252	0.688	
				25	0.311, 0.355 (0.33)	0.862, 0.968 (0.92)	
				32	0.225	0.642	
N. Dakota, Northwood	Jerry	0.15	39 and 71	33	0.017, 0.022 (0.02)	0.086, 0.089 (0.09)	C13-9083 2009
N. Dakota, Carrington	Jerry	0.15	37 and 69	39	0.03 (2)	0.163, 0.143 (0.15)	C13-9091
S. Dakota	Stallion	0.15	43 and 71	36	0.024, 0.023 (0.02)	0.155, 0.208 (0.18)	C16-9090
Iowa	Reeves	0.15	71	32	0.086, 0.078 (0.08)	0.774, 0.91 (0.84)	C30-9085
Pensilvania	Armor	0.15	59 and 71-75	28	0.35, 0.386 (0.37)	1.32, 1.61 (1.5)	E04-9081
Colorado	Jerry	0.15	73 and 71	28	0.05 (2)	0.184, 0.206 (0.20)	W12-9092
S. Caroline	Horizon 270	0.15	43 and 55	44	< 0.01 (2)	0.26 (2)	E11-9082
Texas	BOB	0.15	60/71	35	0.252, 0.269 (0.26)	1.59, 1.52 (1.6)	W07-9089
Wheat							
N. Dakota, Gardner 2009	Durum Wheat (Maier)	0.15	52 and 55	35	< 0.01 (2)	0.052, 0.060 (0.06)	C12-9035
N. Dakota, Carrington	Spring Glenn	0.15	37 and 69	55	< 0.01 (2)	< 0.05 (2)	C13-9038
S. Dakota, Lake Andes	Spring Oxen	0.15	55 – 59 and 71	34	< 0.01 (2)	0.076, 0.075 (0.08)	C16-9037
Iowa	Hard wheat (Briggs)	0.15	71	25	< 0.01	0.055	C30-9034
				32	< 0.01	< 0.05	
				39	< 0.01 (2)	0.058, 0.053	
				46	< 0.01	0.07	
Texas, Raymondville	Caudillo	0.15	43 and 71	38	< 0.01 (2)	< 0.05, 0.06 (0.06)	W08-9036
Colorado	Winter Jagalene	0.15	53 and 71	29	< 0.01 (2)	0.054, 0.057 (0.06)	W12-9044
N. Dakota, Northwood	Winter wheat (Jerry)	0.15	45 and 71	43	< 0.01 (2)	< 0.05 (2)	C13-9033
N. Dakota, Carrington	Winter wheat (Jerry)	0.15	45 and 71	50	< 0.01 (2)	< 0.05 (2)	C13-9040
S. Dakota, Lake Andes	Winter wheat (Wendy)	0.15	43 and 67 - 69	64	< 0.01 (2)	< 0.05, 0.054 (0.05)	C16-9039
Virginia	Pioneer 26R15	0.15	65 and 75	24	< 0.01 (2)	< 0.05, 0.078 (0.06)	E07-9031
Texas, Groom	Winter Cutter	0.15	61 and 71	10	0.13	0.152	E13-9041
				17	0.0762	0.125	
				24	0.084, 0.072 (0.08)	0.165, 0.125 (0.14)	
				30	0.054	0.155	
Lousiania	Winter Terral LA841	0.15	57-59 and 73	30	< 0.01 (2)	0.063, 0.169 (0.12)	

Region	Variety	Application		DAT (days)	Residues (mg/kg)		Trial Ref.
		kg ai/ha	BBCH growth state		Propiconazole	Total propiconazole	
Idaho	Hard wheat (Klassic)	0.15	55 – 59 and 71	35	< 0.01 (2)	< 0.05 (2)	W15-9046
Texas, Levelland	TAM 112	0.15	51 and 73	35	0.011, < 0.01 (0.01)	0.125, < 0.05 (0.09)	W39-9042
Texas, Littlefield	Weathermaster	0.15	51 and 73	35	0.020, 0.023 (0.02)	0.091, 0.099 (0.10)	W39-9043

In eight trials from the USA in barley, matching US GAP, residues of propiconazole found were: < 0.01 (4), 0.01, 0.14, 0.98, 1.1 mg/kg and for total propiconazole < 0.05, 0.06, 0.07, 0.13, 0.38, 0.47, 0.68 and 2.1 mg/kg.

The Meeting estimated a maximum residue level of 2 mg/kg and a STMR of 0.255 mg/kg for propiconazole in barley. This estimate replaces the previous recommendations for propiconazole in barley.

Eleven trials conducted in the USA in oats, matching GAP, residues of propiconazole were: < 0.01, 0.02 (2), 0.03, 0.04, 0.05, 0.06, 0.08, 0.26, 0.33 and 0.37 mg/kg and of total propiconazole residue of 0.09, 0.11, 0.15, 0.18, 0.20, 0.22, 0.26, 0.84, 0.92, 1.5 and 1.6 mg/kg.

The Meeting estimated a maximum residue level of 0.7 mg/kg and a STMR of 0.22 mg/kg for propiconazole in oats.

Fifteen trials conducted in the USA in wheat, matching GAP, residues of propiconazole were: < 0.01 (12), 0.01, 0.02 and 0.08 mg/kg and a total propiconazole residue of: < 0.05 (4), 0.05, 0.06 (4), 0.07, 0.08, 0.09, 0.10, 0.12 and 0.155 mg/kg.

The Meeting estimated a maximum residue level of 0.09 mg/kg and a STMR of 0.06 mg/kg for propiconazole in wheat. The Meeting extended these estimates to rye and triticale and replaced the previous recommendations for propiconazole in wheat, rye and triticale.

#### *Residues in animal commodities*

The estimates made for barley, oat, wheat, rye and triticale did not have any significant impact on the livestock dietary burden estimated in 2014 for propiconazole, consequently no revision of the previous recommendations for animal commodities was made.

## DIETARY RISK ASSESSMENT

### *Long-term intake*

The current ADI for propiconazole is 0–0.07 mg/kg bw. The 2014 JMPR Meeting concluded that the long-term dietary intake for the 17 GEMS/Food Cluster diets of propiconazole is unlikely to present a public health concern (up to 10% of the maximum ADI). The estimations made on barley, oat, rye, triticale and wheat grain by the present Meeting does not significantly change the intake estimates or the previous conclusions made for propiconazole. As a result a new assessment was not conducted.

### *Short-term intake*

An ARfD for propiconazole is 0.3 mg/kg bw. The International Estimated Short-Term Intake (IESTI) of propiconazole was calculated for the commodities for which STMRs and maximum residue levels was estimated by the current Meeting. The results are shown in Annex 4 to the 2015 Report. The IESTI represented a maximum of 3% of the ARfD. The Meeting concluded that the short-term intake of propiconazole residues from uses considered by the current Meeting was unlikely to present a public health concern.