

5.27 PYRACLOSTROBIN (210)

RESIDUE AND ANALYTICAL ASPECTS

Pyraclostrobin was first evaluated for toxicology by the JMPR in 2003 where an ADI of 0–0.03 mg/kg bw per day and an ARfD of 0.05 mg/kg bw per day were established. The 2004 JMPR evaluated the residue behaviour of the fungicide and concluded that the residue definition for both, plant and animal commodities was parent pyraclostrobin for compliance with MRL values as well as for dietary risk assessments. The compound was re-evaluated for residues several times by the JMPR since 2006 and was listed by the Forty-fifth Session of the CCPR (2013) for the review of an additional MRL for apricot.

The 2011 JMPR withdraw the formerly group MRL recommendation of 1 mg/kg for stone fruits and estimated different maximum residue levels for the single commodities cherries, plums (including prunes), peach and nectarine but did no recommendation for apricot. The 2014 JMPR received GAP information and residue data of pyraclostrobin in apricot.

Results of supervised residue trials in crops

Stone fruits

The maximum GAP for the use of pyraclostrobin in stone fruits was from Canada and the USA, consisting of 5×0.13 kg ai/ha and a PHI of 0 days. Labels for alternative use patterns of pyraclostrobin in France and Italy on apricots, plums, peach and nectarine were submitted with application of 3×0.04–0.05 kg ai/ha and a PHI of 3 days.

The 2011 JMPR estimated for pyraclostrobin residues different maximum residue levels, STMRs and HRs for cherries, plums, peach and nectarine. The 2011 Meeting noted that the estimations for peach and nectarine were based on an alternative GAP (France) as the evaluation based on the maximum GAP of the USA exceeded the ARfD. The residue data on which the estimations were based are summarized as follows:

Crop	2011 Estimation, mg/kg			Residue data, mg/kg	Region, application kg ai/ha, PHI
	MRL	STMR	HR		
Cherries	3	0.51	1.57	0.03, 0.27, 0.38, 0.42, 0.47, 0.5, <u>0.51</u> , 0.56, 0.63, 0.82, 1.06, 1.08, 1.57	USA, 5×0.13, 0 days
Plums	0.8	0.09	0.40	0.02, 0.02, 0.04, 0.05, 0.06, 0.07, 0.09, <u>0.09</u> , 0.12, 0.19, 0.22, 0.34, 0.38, 0.40, 0.40	USA, 5 × 0.13, 0 days
Peach, nectarine	0.3	0.07	0.13	< 0.02, 0.03, 0.04, 0.05, <u>0.07</u> , <u>0.07</u> , 0.08, 0.11, 0.12, 0.13	South-EU, 3×0.04–0.05, 3 days

The current Meeting received information on two field trials for pyraclostrobin uses on apricots in 2013 in Italy and Spain. Three foliar sprays at rates of 0.05 kg ai/ha were made matching the French and Italian GAP. The residues were 0.08 (2) mg/kg in fruits at a 3-days PHI.

The Meeting noted that the two residue values on apricots of 0.08 mg/kg are in the same order of magnitude as the residues in peaches matching the alternative European GAP (3×0.04–0.05, PHI 3 days).

The Meeting concluded that the MRL of 0.3 mg/kg, the STMR of 0.51 mg/kg and the HR of 1.57 mg/kg established for cherries should be extrapolated to the whole Stone fruits subgroup 003A Cherries (includes all commodities in this subgroup). The meeting withdrew its previous recommendation of 0.3 mg/kg for the single commodity cherries.

The Meeting decided that the maximum residue level of 0.8 mg/kg, the STMR of 0.09 mg/kg and the HR of 0.40 mg/kg established for plums should be extrapolated to the whole stone fruit subgroup 003B for Plums. The meeting withdrew its previous recommendation of 0.8 mg/kg for the single commodity Plums (including prunes).

The Meeting decided that each maximum residue level of 0.3 mg/kg, the STMR of 0.07 mg/kg and the HR of 0.13 mg/kg established for peaches and nectarines should be extrapolated to the whole stone fruit subgroup 003 C for Peaches (including nectarines and apricots). The meeting withdrew its previous recommendation of 0.3 mg/kg for the individual commodities peaches and nectarines.

RECOMMENDATIONS

On the basis of the data from supervised trials the Meeting concluded that the residue levels listed below are suitable for establishing maximum residue limits and for dietary risk assessment.

Definition of the residue (for compliance with the MRL and for estimation of dietary intake) for plant and animal commodities: Pyraclostrobin.

The residue is not fat-soluble.

DIETARY RISK ASSESSMENT

Long-term intake

The International Estimated Daily Intakes (IEDIs) of pyraclostrobin were calculated for the 17 GEMS/Food cluster diets using STMRs and STMR-Ps estimated by the JMPR in 2004, 2006, 2011, 2012 and 2014. The results are shown in Annex 3 to the 2014 Report.

The ADI is 0–0.03 mg/kg bw and the calculated IEDIs were 1–6% of the maximum ADI. The Meeting concluded that the long-term intake of residues of pyraclostrobin resulting from the uses considered by the JMPR is unlikely to present a public health concern.

Short-term intake

The International Estimated Short Term Intake (IESTI) for pyraclostrobin was calculated by the current Meeting for apricot. The results are shown in Annex 4 to the 2014 Report.

For the commodities considered by the 2014 JMPR, the IESTI represented 0–30% of the ARfD for the general population and 0–40% for children. The Meeting concluded that the short-term intake of residues of pyraclostrobin, when used in ways that have been considered by the JMPR, is unlikely to present a public health concern.