

5.22 ZOXAMIDE (227)

RESIDUE AND ANALYTICAL ASPECTS

Zoxamide, a benzamide fungicide, was first evaluated by the 2007 JMPR which allocated ADI of 0-0.5 mg/kg bw and agreed that an ARfD was unnecessary. The definition of residues for plant commodities for compliance with the MRL and for estimation of dietary intake was zoxamide.

The 2007 JMPR estimated a maximum residue level for cucumber of 1 mg/kg on the basis of supervised trials conducted in Europe and the Polish GAP. The current Meeting received information on a new use pattern for cucurbits in the USA, with a shorter PHI, which was used for the estimation of a maximum residue level for cucurbits.

Results of supervised trials on crops

The NAFTA calculator was used as a tool in the estimation of the maximum residue level from the selected residue data set obtained from trials conducted according to GAP. As a first step, the Meeting reviewed all relevant factors related to each data set in arriving at a best estimate of the maximum residue level using expert judgement. Then, the NAFTA calculator was employed. If the statistical calculation spreadsheet suggested a different value from that recommended by the JMPR, a brief explanation of the deviation was supplied. Some common factors that may lead to rejection of the statistical estimate include when the number of data points in a data set is less than 15 or when there are a large number of values < LOQ.

Fruiting vegetables, Cucurbits

The Meeting evaluated the results of supervised outdoor trials conducted on cucurbits in the USA submitted to the 2007 JMPR against the new US GAP.

Six trials were conducted on cucumber in the USA in compliance with the GAP of the USA for cucurbits (maximum rate of 0.22 kg ai/ha, 8 applications, PHI 0 days). The residues in rank order were: 0.01, 0.02, 0.03, 0.05, 0.12, 0.13 mg/kg.

Six trials on cantaloupe were conducted in the USA in compliance with US GAP for cucurbits. The residues in rank order were: 0.04, 0.06, 0.08, 0.37, 0.44, 0.73 mg/kg.

Five trials on summer squash were conducted in the USA in compliance with US GAP for cucurbits. The residues in rank order were: 0.08, 0.10, 0.15, 0.19, 0.39 mg/kg.

On the basis the trial results on cantaloupe which gave the highest residues in the group, the Meeting estimated a maximum residue level of 2 mg/kg for fruiting vegetables, cucurbits. The Meeting estimated an STMR of 0.225 mg/kg. The previously recommended maximum residue level of 1 mg/kg for cucumber should be withdrawn.

The maximum residue level estimate derived from use of the NAFTA calculator was 1.8 mg/kg (UCLMedian 95th). The normal JMPR procedure is to use one significant figure for maximum residue levels below 10 mg/kg. Rounding up the value obtained from the calculator results in an estimate of 2 mg/kg, which coincides with the recommendation of the present Meeting.

DIETARY RISK ASSESSMENT

Long-term intake

The IEDIs of zoxamide were calculated for the 13 GEMS/Food Consumption Cluster Diets using STMRs/STMR-Ps estimated by the current and 2007 JMPR (Annex 3). The ADI is 0-0.5 mg/kg bw

and the calculated IEDIs were 0–0.3% of the maximum ADI. The Meeting concluded that the long-term intakes of residues of zoxamide, resulting from the uses considered by the current and 2007 JMPR, are unlikely to present a public health concern.

Short-term intake

The 2007 JMPR decided that an ARfD is unnecessary. The Meeting therefore concluded that the short-term intake of residues of zoxamide is unlikely to present a public concern.