

5. EVALUATION OF DATA FOR ACCEPTABLE DAILY INTAKE AND ACUTE REFERENCE DOSE FOR HUMANS, MAXIMUM RESIDUE LEVELS AND SUPERVISED TRIALS MEDIAN RESIDUE VALUES

5.1 ACETAMIPRID (246)

RESIDUE AND ANALYTICAL ASPECTS

Acetamiprid is a neonicotinoid insecticide. The compound was first evaluated by the JMPR in 2011 (T,R) where an ADI of 0-0.07 mg/kg bw/day and an ARfD of 0.1 mg/kg bw were established. Maximum residue levels for a number of commodities were recommended by JMPR in 2011, 2012 and 2015. Acetamiprid was listed by the 48th Session of CCPR (2016) for evaluation of 2017 JMPR for additional uses.

The residue definition for acetamiprid in plant commodities for enforcement and dietary risk assessment is acetamiprid. The definition of the residue for animal commodities (for compliance with the MRL and estimation of dietary intake) is the sum of acetamiprid and N-desmethyl-acetamiprid, expressed as acetamiprid. The residue is not fat soluble

Residue data and GAP information were submitted to the present Meeting on pistachio nuts.

Methods of analysis

The analytical method QuEChERS (EN 15662) used in the supervised residue trials to determine parent compound acetamiprid had been previously evaluated by the JMPR (2011). The present Meeting received a summary of additional validation data for this method.

The multi-residue QuEChERS method using GC-MS and/or liquid chromatography coupled with tandem mass spectrum detection (LC-MS/MS) was validated at the LOQ of 0.01 mg/kg for determining acetamiprid residues in dry, high water, acid, oily and high sugar content matrices and in animal matrices. For pistachio nuts, the method was slightly modified. The modification was not detailed.

Stability of pesticide residues in stored analytical samples

At the 2011 JMPR evaluation, acetamiprid was shown to be stable for up to 12 months for a large range of commodities, including oil seeds. The (frozen) storage intervals between sampling and analysis of the submitted field trials with pistachio nuts were less than one month and therefore covered by the storage periods in these stability studies.

Results of supervised residue trials on crops

The Meeting received supervised residue trial data for foliar applications of acetamiprid on pistachio nuts.

Pistachio nuts

The critical GAP for acetamiprid on pistachio nuts in Iran is for 3 foliar applications at 0.05 kg ai/ha (interval of 20–30 days) and no specified PHI. The Meeting received four independent trials that were performed using an application rate of 3×0.05 kg ai/ha, RTI of 29–60 days and a PHI 28–30 days.

However, the supplied data did not match the GAP for pistachio nuts. Therefore, the Meeting could not estimate a maximum residue level, STMR or HR for acetamiprid in pistachio nuts.

