

## 5.22 IMIDACLOPRID (206)

### RESIDUE AND ANALYTICAL ASPECTS

Imidacloprid was last evaluated by the JMPR in 2015 for residues. An ADI of 0–0.06 mg/kg bw and an ARfD of 0.4 mg/kg bw are established by the JMPR. The residue definition for compliance with MRLs and for estimation of dietary intake for plant and animal commodities is the sum of imidacloprid and its metabolites containing the 6-chloropyridinyl moiety, expressed as imidacloprid.

This compound was scheduled by the 48<sup>th</sup> Session of the CCPR (2016) for the evaluation of additional uses by the 2017 JMPR. The Meeting received residue trial information on pistachio nut from Iran.

#### *Methods of analysis*

##### *Pistachio*

Imidacloprid and its metabolite imidacloprid-olefin in pistachio nutmeat were analysed with extraction by QuEChERS method and determination by LC-MS/MS. LOQ values were 0.005 mg/kg for imidacloprid and 0.01 mg/kg for imidacloprid-olefin and the recoveries of the analytes were satisfactory. In the submitted pistachio trials, total residues, converted to 6-chloronicotinic acid based on a common moiety, were not analysed.

#### *Stability of residues in stored analytical samples*

Information on stability was not required as samples were analysed within 20 days of collection.

#### *Results of supervised residue trials on crops*

##### *Pistachio*

Four independent residue trials were conducted on pistachio in 2015. The GAP in Iran is for  $3 \times 0.14$  kg ai/ha with a spray interval of 20-30 days and no PHI specified. The trials provided did not match the GAP in Iran as they had longer PHIs. In addition, total residues were not analysed. As a result the Meeting could not estimate a maximum residue level.

