## 5.2 AZOXYSTROBIN (229)

### RESIDUE AND ANALYTICAL ASPECTS

Azoxystrobin was first evaluated for toxicology and residues by the JMPR in 2008. It was evaluated for residues by the JMPR in 2011, 2012, 2013 and 2017. An ADI of 0–0.2 mg/kg bw was established and an ARfD was unnecessary. The residue definition for plant and animal commodities for both compliance with MRLs and dietary risk assessment is azoxystrobin. The residue is fat soluble.

Azoxystrobin was scheduled at the Fiftieth Session of the CCPR for the evaluation of additional uses by the 2019 Extra JMPR. The Meeting received new GAP information on guava in Egypt and coffee in Brazil, analytical methods, supervised residue trials for guava and coffee, and processing studies on coffee.

#### *Methods of analysis*

The Meeting received validation data on a new analytical method on coffee bean (green). Azoxystrobin residues were extracted with a solution of acetonitrile:water (9:1) and residues quantified by LC-MS/MS, with an LOQ of 0.01 mg/kg.

#### *Stability of residues under storage*

Previous studies submitted to the Meeting showed that residues of azoxystrobin stored at ≤ 20 ºC are stable for at least 24 months in a variety of crops, including grape, peanut, tomato, apple, banana, cucumber, peach, soya bean, corn, carrot, lettuce, wheat and orange.

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

##### *Guava*

The critical GAP for guava in Egypt is 3 × 0.01 kg ai/hL, with a 7±14 day application interval and a PHI of 7 days. Residues in the six independent trials submitted to the 2017 JMPR according to this GAP were 0.03 (2), 0.05, 0.06 and 0.10 (2) mg/kg.

The Meeting estimated a maximum residue level of 0.2 mg/kg and a STMR of 0.055 mg/kg for azoxystrobin in guava.

##### *Coffee*

The critical GAP for coffee in Brazil is 3 × 0.12 kg ai/ha, with a 60 day application interval and a 21-day PHI. Residues from 13 independent trials conducted approximating this cGAP, and evaluated by the 2011 JMPR, were < 0.01 (10), 0.01 and 0.02 (2) mg/kg. Two new trials conducted at four times the GAP rate gave residues < 0.01 mg/kg.

The Meeting confirmed the previous recommendations for azoxystrobin in coffee bean.

#### *Fate of residues during processing*

Two new processing studies on coffee conducted in Brazil at four times the GAP rate were submitted to the Meeting. Residues in unprocessed coffee beans and all processed commodities (roasted beans, concentrated coffee and instant coffee) were < 0.01 mg/kg. Thus, the processing factors recommended by the 2013 JMPR for coffee remained unchanged.

### RECOMMENDATIONS

On the basis of the data obtained from supervised trials the Meeting concluded that the residue levels listed in Annex 1 are suitable for establishing maximum residue limits and for IEDI assessment.

Residue definition for compliance with the MRL and dietary risk assessment for plant and animal commodities: *azoxystrobin.*

The residue is fat soluble.

## DIETARY RISK ASSESSMENT

### *Long-term dietary exposure*

The ADI for azoxystrobin is 0–0.2 mg/kg bw. The International Estimated Daily Intakes (IEDIs) for azoxystrobin were estimated for the 17 GEMS/Food Consumption Cluster diets using the STMR or STMR-P values estimated by the JMPR. The results are shown in Annex 3 of the 2019 Extra JMPR Report.

The IEDIs accounted for 2 to 20% of the maximum ADI. The Meeting concluded that the long-term dietary exposure to residues of azoxystrobin from uses considered by the JMPR is unlikely to present a public health concern.

### *Acute dietary exposure*

The 2008 JMPR decided that an ARfD for azoxystrobin was unnecessary. The Meeting therefore concluded that the acute dietary exposure to residues of azoxystrobin is unlikely to present a public health concern.