

5.14 DITHIOCARBAMATES (105)

RESIDUE AND ANALYTICAL ASPECTS

Ethylene-bis-dithiocarbamate fungicides were evaluated several times by the JMPR for toxicology and residues. In 1993, the JMPR estimated a group ADI of 0–0.03 mg/kg bw for mancozeb, maneb, metiram and zineb.

Dithiocarbamate pesticides were listed by the Forty-third Session of the CCPR for evaluation of additional commodities by the 2012 JMPR. The Meeting received information on residue analysis and supervised trials with mancozeb and maneb on okra.

Methods of analysis

The analytical method used in the supervised trials of mancozeb and maneb in okra relied on CS₂ evolution using GC-MSD with a reporting limit for of quantification of dithiocarbamates of 0.05 mg/kg.

Results of supervised residue trials on crops

The Meeting received supervised trial data for mancozeb and maneb on okra in Côte d'Ivoire. As part of the field trials conducted within the Pesticide Initiative Programme aiming to provide data for establishing import MRLs in the European Union, maneb and mancozeb were applied in combination with other pesticides as foliar spray treatment with up to three times at about 2 kg ai/ha in six trials carried out in Côte d'Ivoire. The residues 7 days after one to three applications of mancozeb were: < 0.05, 0.06, 0.11, 0.13 and 0.13 mg/kg and after two to four applications of maneb, < 0.05, < 0.05 and 0.14 mg/kg.

The application conditions were based on the requirement of appropriate control of diseases of okra, but they were not supported by a label or an official declaration of approved use from Côte d'Ivoire.

As no official information on GAP was submitted, the Meeting was unable to estimate a maximum residue level for dithiocarbamates in okra.