This is a provisional English translation of an excerpt from the original full report.

Risk Assessment Report

Fenitrothion

(Pesticides and Veterinary Medicinal Products)

Food Safety Commission of Japan (FSCJ)
June 2014

ABSTRACT

FSCJ conducted a risk assessment of fenitrothion (CAS No. 122-14-5), an insecticide, based on the results from various studies.

Data used in the assessment include pharmacokinetics (rats, mice, rabbits, guinea pigs, dogs, goats, humans, chicken and quails), fate in plants (paddy rice and grapes), residues, subacute toxicity (rats and rabbits), subacute neurotoxicity (rats and chicken), chronic toxicity (dogs and monkeys), combined chronic toxicity/carcinogenicity (rats and mice), carcinogenicity (mice), reproductive toxicity (rats), developmental toxicity (rats and rabbits), genotoxicity.

Major adverse effect of fenitrothion observed is inhibition of ChE activity. Fenitrothion did not show any clear carcinogenicity, reproductive toxicity, teratogenicity, delayed neurotoxicity, and genotoxicity relevant to human health.

Based on the results of various studies, only fenitrothion (parent compound) was considered as a residue definition for this dietary risk assessment in agricultural products, livestock products and fishery products.

The lowest no-observed-adverse-effect level (NOAEL) obtained in all the tests was 0.49 mg/kg bw/day in a combined two-year chronic toxicity/carcinogenicity study in rats. FSCJ specified an acceptable daily intake (ADI) of 0.0049 mg/kg bw/day by applying a safety factor of 100 to the NOAEL.