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

Risk Assessment Report

Fluazifop

(Pesticides)

Food Safety Commission of Japan (FSCJ)
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ABSTRACT

FSCJ conducted a risk assessment of fluazifop (fluazifop-butyl: CAS No. 69806-50-4 and fluazifop-P-butyl: CAS No. 79241-46-6), aryloxy phenoxypropionic acid herbicides, based on results from various studies.

The data used in the assessment include the fate in animals (rats, mice, dogs, cattle, chicken and goats), fate in plants (soybeans and sugar beets), residues in crops, subacute toxicity (rats, dogs and hamsters), subacute neurotoxicity (rats), chronic toxicity (dogs), combined chronic toxicity/carcinogenicity (rats and mice), carcinogenicity (hamsters), two-generation and three-generation reproductive toxicity (rats), developmental toxicity (rats and rabbits), and genotoxicity.

Major adverse effects of fluazifop include increased liver weights, increased kidney weights and chronic progressive nephrosis, increased testis weights and seminiferous epithelial-tubular atrophy, as well as cataracts in dogs. No neurotoxicity, carcinogenicity or genotoxicity were observed.

In two-generation and three-generation reproductive toxicity studies in rats, prolonged gestational period, decreased number of postimplantation and decreased conception rate were observed. Diaphragmatic hernia and hydronephrosis were observed in rats in a developmental toxicity study. No teratogenicity was observed in rabbits at dose level in which maternal toxicity was not observed.

Major adverse effects of fluazifop-P-butyl include increased organ weights in the liver and kidney, and seminiferous tubular degeneration and cataracts in hamsters. No carcinogenicity or genotoxicity were observed.

No teratogenicity was observed in a developmental toxicity study in rats at dose of 300 mg/kg bw/day.

Based on the above results, fluazifop, fluazifop-P-butyl and metabolite D were identified as the residue definition for dietary risk assessment in agricultural and livestock products.

FSCJ considered it appropriate to specify an ADI and an acute reference dose (ARfD) on the basis of the no-observed-adverse-effect level (NOAEL) obtained in various toxicity studies of fluazifop and fluazifop-P-butyl, since both herbicides show the bioequivalence *in vivo*.

The lowest NOAEL in all studies was 0.44 mg/kg bw/day in a two-year combined chronic toxicity/carcinogenicity study in rats. Applying a safety factor of 100 to the NOAEL, FSCJ specified an acceptable daily intake (ADI) of 0.0044 mg/kg bw/day.

The lowest NOAEL for potential adverse effects of a single oral administration of fluazifop was 2 mg/kg bw/day obtained in developmental toxicity studies of fluazifop-P-butyl in rats and rabbits, in which the observed effect was delayed fetal skeletal ossification unaccompanied by decreased body weight gain. Consequently, applying a safety factor of 100 to the NOAEL, FSCJ specified an acute reference dose (ARfD) of 0.02 mg/kg bw/day for pregnant women or women who may be pregnant.
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The lowest NOAEL of fluazifop-P-butyl for general population is 948 mg/kg bw obtained in an acute toxicity study in rats. FSCJ considered it unnecessary to specify an acute reference dose (ARfD), since the NOAEL was above the cut-off level (500 mg/kg bw).