

# Annex II

## **Relative Toxicity of Some Pesticides to Honeybees**

Pesticides have been classified into three groups: highly toxic, moderately toxic, and least toxic.

### **Highly Toxic Pesticides**

These pesticides are highly toxic to bees and residual toxicity is usually high even 10 h after their application. When applied on blooming crops or weeds, they may cause severe damage to bees. Crop growers should inform beekeepers in advance when they are using these insecticides, so that colonies can be moved to safer locations. This group includes the following pesticides.

- Carbaryl D; WP; XLR; ULV
- Carbophenothion D
- Cypermethrin 10 EC
- Deltamethrin 20 EC
- Diazinon
- Dichlorvos 100 EC
- Dimethoate 30 EC
- DDVP 100 EC
- Fenitrothion
- Fenthion
- Formothion
- Gamma BHC
- Lindane
- Melathion D; ULV; EC
- Methylparathion
- Mevinphos

- Monocrotophos 36 WSC
- Parathion
- Permethrin 25 EC
- Phorate
- Phosphamedon 100 EC
- Quinalphos 25 EC
- Thiometon

**Moderately Toxic Pesticides**

These pesticides are relatively less toxic to bees. Their residual toxicity is usually low within 3 h after their application. These pesticides can be applied during late evening when bees are not foraging. The following fall into this group.

- BHC
- Carbryl G
- DDT 50%
- Dieldrin G
- Endosulfan 35 EC
- Endrin
- Ethyl Parathion 46%
- Heptachlor G
- Hinosan 50 EC
- Malathion 50 EC
- Metasystox 25EC
- Metacid 50 EC
- Methyl demeton
- Trichlorfon 50 EC

**Least Toxic Pesticides**

These pesticides cause minimum hazard to bees. These can be applied during late evening, night, or early morning with reasonable safety to honeybees. Their relative toxicity is usually low straight after application. This group includes the following.

- Allethrin
- Amitraz

- Azocyclothin
- Bavistin 50 WP
- Carbofuran G
- Diathane M-45 75 WP
- Dicofol
- Dienochlor
- Difolitan 50 WP
- Dinocap
- Dienochlor
- Fenazoflor
- Foltaf 80 WP
- Hexacap 50 WP
- Melathion G
- Menazon 70 DP
- Phosalone 35 EC