

Birds & Pesticides: The Invisible Truth

What is a pesticide?

The law states that a pesticide is “any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.” This includes insecticides, herbicides, fungicides, rodenticides, antimicrobials, plant growth regulators, defoliants and desiccants. It is important to understand what pesticide labels don't tell you, because you could be affecting non-targeted organisms.

Thousands of birds die each year because of pesticide use. Bird kills are hard to document due to many reasons. Poisoned birds may fly a great distance away from the location of pesticide intake. Dying birds may hide and those that have died are consumed by predators. Bacterial decay also occurs rapidly, therefore making evidence harder to find. Less active birds that have pesticides in their system may hide, making location difficult. Birds are negatively affected by pesticide exposure as evidenced by the increasing number of bird deaths each year.

How are birds exposed?



There are many different ways that pesticides can affect birds. Routes of exposure include ingestion, inhalation, and absorption through the skin. Pesticides can be ingested through pesticide soaked granules/seeds, insects and vegetation that have been sprayed, and drinking contaminated water. Also, birds can ingest pesticides by eating smaller mammals that were previously exposed. Inhalation can occur from chemical spray or treated dust. Skin absorption can occur from bathing in pesticide-affected water, or absorption through the feet by standing in treated soil or vegetation.

How does pesticide exposure affect birds?

Different pesticides affect different species in different manners. Pesticides can affect a bird's habitat, mating rituals, ability to defend territory, and overall health of the population. Birds can die within a half an hour of being exposed to a toxin. They experience labored breathing, convulsions, and feather fluffing. A bird's sight can be affected by pesticide exposure increasing its chance of being hit by a car, preyed upon, or ability to find food. It can also affect their ability to respond quickly. Altered behavior can affect reproductive abilities, failure to find a mate, failure to perform mating rituals, defend territory, and change patterns of attention to their young.



What can you do?

Integrated Pest Management, or IPM, is an effective technique to manage pests in your home and garden. By using IPM you can reduce the use of pesticides, have healthier plants, and enjoy your landscape.



Step 1. Prevention

- Plant a variety of species
- Build good soil and give plants the sun, water, and nutrients they need.
- Keep garden pathways and beds clean.
- Rotate crops.

Step 2. Observation

- Monitor your plants carefully.
- Be realistic. Act only when necessary.

Step 3. Taking Action

- Physical and cultural controls
- Biological controls
- Chemical controls

Step 4. Evaluation

- How effective was your work?

Safer Alternatives to Insecticides

Pheromone Traps	SureFire™ Fruit Tree Pest Trap (Apple Maggot)	No Hazard
Sticky Traps	Tangle-Trap Whitefly/Aphid Trap	No Hazard
Garlic Oil	Garlic Barrier™ Insect Repellent	No Hazard
Insecticidal Soap	Safer® Insecticidal Soap	Low to Moderate Hazard on Aquatic Life
Live Bacteria	Safer Insect Soap	Low to Moderate Hazard to Birds, Bees, and pets



Active Ingredient Common Name	Trade Names (Not Limited To Only These)	Product Names and Manufacturers (Not Limited to only these)	Toxic to Aquatic Organ- isms	Toxic To Birds	Toxic to Insects
Insecticides					
Acephate	Orthene	Valente U.S.A. Corp Ant-Stop™ ORTHENE® Fire Ant Killer Bloom Gard ORTHENE® Systemic Insect Control Concentrate		▲	▲
Bendiocarb	Trumpet	Ficam Turcam	▲	▲	▲
Brodifacoum	Talon Havoc	ICI Americas, Inc.	▲	▲	▲
Carbaryl	Sevin/Savit	BUG-B-GON Multi-Purpose Garden Dust (bag) ORTHO® Bug-B-Gon® Multi-Purpose Insect Killer Ready-To-Use Granules	▲	▲	▲
Chlorpyrifos	Lorsban	ORTHO® ANT-STOP™ Ant Killer ORTHO® Dursban® Ready-Spray Outdoor Flea & Tick Killer 1 ORTHO® Borer & Leaf Miner Spray ORTHO® Garden Care® Lilly/Miller® Dursban® Granules	▲	▲	▲
Diazinon *	Diazinon Basudin Dazzel Gardentox Kayazol Knox Out Nucidol Spectracide	ORTHO® Diazinon Granules ORTHO® Diazinon Soil & Turf Insect Control ORTHO® Ant-Stop® Ant Killer Dust 2 Bug-B-Gon Ready Spray ORTHO® Lock 'N Spray® Bug-B-Gon® Multi-Purpose Insect Killer 1 Ciba-Geigy Corp. Lilly/Miller® Diazinon Granules	▲	▲	▲
Lindane	Isotox Kwell benzene hexa- chloride" or "BHC"	Drexel Chemical Company Ortho® Isotox (formula IV) Ortho® Lindane Borer/Leaf Miner Spray	▲	▲	▲
Malathion	Cythion Malathion	ORTHO® Malathion Plus® Insect Spray Concentrate ORTHO® MALATHION 50 PLUS® Insect Spray	▲	▲	▲
Herbicides					
2, 4-D	2, 4-D	Hi-Dep® Weedar® 64 Weed RHAP A-4D® Weed RHAP A Rhone-Poulenc, Inc.	▲		▲
Glyphosate	Roundup	Roundup Weed & Grass Killer I Ready-To-Use KLEERAWAY™ Systemic Weed & Grass Killer Roundup® Tough Weed Formula	▲		
Trifluralin	Treflan® 5G Treflan® E.C. Trifluralin® 4EC	DowElanco	▲		
Fungicides					
Benomyl	Benlate	Du Pont Agricultural Products		▲	
Chlorothalonil	Bravo	SDS Biotech Corporation Griffin Chemical Company		▲	

Pesticides can remain in the environment for a long time. Most people think pesticides only last a day or two, however, breakdown of the chemical can range from a few days to a year. Buy products that are less hazardous to the environment and practice Integrated Pest Management. Use sticky barriers, baits, and oils for physical controls. Use soap-based insecticides and pyrethrum-based insecticides for chemical controls. Use ladybugs, lacewigs, or predatory wasps for biological controls. Dispose of pesticides properly to prevent unwanted harm to the environment. Please call the City of Lawrence Waste Reduction & Recycling Division at 832-3030 if you have any questions.

Sources:

Dickey, Philip. "Grow Smart, Grow Safe: A Consumer Guide to Lawn & Garden Products" Washington Toxic Coalition. 1998.
www.abcbirds.org, www.ace.orst.edu,
www.birdcast.org, www.hclrss.demon.co.uk/,
www.cws-scf.ec.gc.ca/hww-fap/pesticides/pest.htm,
www.infoventures.com, www.ortho.com,
www.roundup.com