

Lawn & Garden Pesticides

Hazards & Alternatives

A Fact Sheet from Toxic Free North Carolina

Many lawn and garden pesticides are toxic chemicals that should not be used around children, sensitive individuals or pets. The things you spray outdoors can travel inside on your shoes, pet fur and dust, where they take much longer to break down. This list of common products and alternatives will help you make safer decisions about pest control in your backyard. For the most effective pest control, *prevent* pest problems with the checklist below. Building healthy soil and encouraging wildlife, including beneficial insects, will make your lawn and garden grow strong and beautiful without the need for toxic chemicals.



PESTICIDE	PRODUCT INFORMATION	ALTERNATIVES
Insecticides	A wide variety of insecticides are available for use in your garden, but many contaminate water and soil, kill beneficial insects and can harm health.	Beneficial insects, including dragonflies, wasps, ants, ladybugs, ground beetles and others do the dirty work for you by feasting on pests like mosquitoes, aphids and grubs.
Carbaryl	The main ingredient in <i>Sevin</i> dust and <i>Bonide</i> spray, carbaryl is associated with a stunning array of human health problems. It contaminates groundwater and is toxic to many kinds of wildlife, ¹ killing as many as 1 to 2 million birds in the US every year. ²	Try milky spore for Japanese beetles, ladybugs or insecticidal soap for aphids, and Bt (<i>bacillus thuringiensis</i>) for caterpillars such as hornworms.
Malathion	Like all organophosphate insecticides, malathion is toxic to the human nervous system. ³ Often used for control of adult mosquitoes.	Target mosquito larvae with Bt, and eliminate breeding sites by emptying all containers in your yard that can hold standing water.
2,4-D	2,4-D is the most widely used herbicide in the world and is an ingredient in products such as <i>Weed-B-Gone</i> and <i>Scotts Turf builder</i> for control of broadleaf weeds. It can damage the nervous system as well as causing birth defects ⁴ and other reproductive problems.	A healthy lawn is easy to achieve with grasses that are well-adapted to your area, native plants, dethatching, aerating and adding organic matter (such as compost) in spring & fall.
MCPA	A common herbicide ingredient in products like <i>Trimec</i> (along with MCPP & Dicamba) and weed & feed products like <i>Scott's Pro Lawn</i> ; frequently used by lawn care companies. Toxic to wildlife and humans, MCPA is a "possible" carcinogen. ⁵	See alternatives to 2,4-D, above.
Glyphosate	The active ingredient in <i>Roundup</i> , glyphosate kills anything green. "Inert" ingredients in this product are linked to a variety of health & environmental effects.	Alternatives include mulching, hand weeding, flame/steam/heat weeders, tolerance of native "weeds" and better mowing practices.

Pest prevention checklist

- ❑ Remove or drain buckets, old tires, or any other objects that can hold standing water.
- ❑ Use mulch in flower beds to stop weeds.
- ❑ Early in the fall, plant naturally pest-resistant grass that is well-suited to your climate.
- ❑ Fertilize lawns with compost or organic fertilizer in the spring and fall.
- ❑ Choose native plants for your garden that are well-adapted to local challenges.
- ❑ Mow your lawn regularly at a height of 2-1/2 to 3 inches.
- ❑ Cut down tall weeds, brush or grass from around the outside of the house and dispose of the clippings.
- ❑ Clean out gutters often, and make sure that water is draining away from the house.
- ❑ Encourage wildlife with native plants, bird feeders and water sources (bird baths should be cleaned weekly to prevent mosquitoes).

References

- ¹ ExToxNet, Extension Toxicology Network. 1993. "Pesticide Information Profile: Carbaryl." Cornell University.
- ² U.S. EPA. Office of Pesticides and Toxic Substances. 1989. "Carbofuran: A special review technical support document." Washington, D.C.
- ³ Reigart & Roberts, 1999. *Recognition and Management of Pesticide Poisonings*. US EPA Office of Prevention, Pesticides and Toxic Substances (pp 34-36).
- ⁴ Schreinemachers, DM. 2003. "Birth Malformations and Other Adverse Perinatal Outcomes in Four U.S. Wheat - Producing States." *Environmental Health Perspectives* 111:1259-1264.
- ⁵ IARC Group 2B, Possible Carcinogens. International Agency for Research on Cancer. Viewed on August 10, 2003.

