

Carbon Monoxide

The Hidden Killer

Carbon monoxide (CO) is a poisonous, invisible, odorless, colorless gas created by the incomplete combustion of fossil fuels, such as gasoline, wood, coal, propane, oil and methane. CO kills cells in the body by replacing oxygen in the bloodstream, which leads to suffocation.

Mild symptoms of carbon monoxide poisoning are flu-like, progressing from mild headache to severe headache, nausea and dizziness. More severe effects include difficulty breathing, unconsciousness and death.

CO is the largest cause of poisoning in the United States. Each year it kills an average of 544 Americans in accidental exposures, according to the Centers for Disease Control. Another 7,000 to 15,000 people are hospitalized annually.

The sources of CO are unvented kerosene and gas space heaters; leaking chimneys and furnaces; back-drafting from furnaces, gas water heaters, wood stoves and fireplaces; gas stoves, automobile exhaust from attached garages and environmental tobacco smoke.

Since this is the time of year when most of us have turned on

the heat in our homes, it is an appropriate time to take precautions.

How can you protect yourself and your family from CO poisoning? Bruce Sellon, Deputy Fire Chief, Lincoln Fire Department, suggests installing CO detector inside your home to provide early warning of accumulating CO. When it comes to placing detectors, Sellon says, "It makes sense to place them in living areas of homes. Think about where your gas, oil or kerosene burning appliances are and who you want to protect and place CO detectors in places that make sense. One detector for each level of the house is best."

A big problem is running a car inside the garage. Sellon, says, "Warming up a car in the winter in an attached garage, even for a few minutes, can produce dangerous concentrations of CO. It is best to pull the car out of the garage and let it warm up outside."

Tips for Buying a CO Alarm

Only buy an alarm that is listed by a qualified, independent testing laboratory. Note the manufacturer's recommenda-

tions for replacing CO alarms, as they might need to be replaced in two to five years.

When purchasing a battery-powered alarm for your home note the type of battery it requires. Some battery-powered CO alarms have unique battery packs designed to last approximately two years. Others may require yearly replacement. Still others have been designed to plug into an electrical outlet.

Have your local fire department's non-emergency telephone number at hand to call if the CO detector sounds. Test CO alarms as directed by the manufacturer.

What should you do if your alarm goes off? The NFPA recommends you leave the building immediately, turning off heating and cooking equipment as you go. Also, leave the doors open. In Lincoln, call 911 and members of the Lincoln Fire Department will come and check the CO levels in your home. In rural Lancaster County, volunteer fire departments should have these meters. Always get immediate medical attention if anyone exhibits signs of carbon monoxide poisoning.

Sources: National Fire Prevention Association, Lincoln Fire Department. (BPO)

Prevent Carbon Monoxide Poisoning from Small Gasoline-Powered Engines and Tools

Many people using gasoline-powered tools such as high-pressure washers, concrete cutting saws, power trowels, floor buffers, welders, pumps, compressors and generators in buildings or semi-enclosed spaces have been poisoned by carbon monoxide (CO). CO can rapidly accumulate (even in areas that appear to be well ventilated) and build up to dangerous or fatal concentrations within minutes. Examples of such poisonings include the following:

- A farm owner died of CO poisoning while using an 11-horsepower, gasoline-powered pressure washer to clean his barn. He had worked about 30 minutes before being overcome.
- A municipal employee at an indoor water treatment plant

lost consciousness while trying to exit from a 59,000-cubic-foot room where he had been working with an eight-horsepower, gasoline-powered pump. Doors adjacent to the work area were open while he worked. His hospital diagnosis was CO poisoning.

- Five workers were treated for CO poisoning after using two eight-horse-power, gasoline-powered, pressure washers in a poorly ventilated underground parking garage.
- A plumber used a gasoline-powered concrete saw in a basement with open doors and windows and a cooling fan. He experienced a severe headache and dizziness and began to act in a paranoid manner. His symptoms were related to CO poisoning.

These examples show a range of effects caused by CO

poisoning in a variety of work settings with exposures that occurred over different time periods and with different types of ventilation. Workers in areas with closed doors and windows were incapacitated within minutes. Opening doors and windows or operating fans does not guarantee safety.

If you use gasoline-powered tools in enclosed spaces, learn to recognize the symptoms and signs of CO overexposure: headache, nausea, weakness, dizziness, visual disturbances, changes in personality and loss of consciousness. Any of these symptoms and signs can occur within minutes of usage.

Source: National Institute for Occupational Safety and Health (BPO)

Neighborhood Cats

House cats and feral (wild) cats have a significant impact upon wild songbirds. A conservative estimate puts the cat population at about 55 million in the United States. If 80 percent of those cats were either feral or cats that were allowed to go outside, and if only one cat in ten caught one bird per day, 4.4 million birds would be killed per day by cats. Cats are not a natural part of the food chain and detrimental to songbird

populations.

If you own cats, keep them on a leash or indoors. At the very minimum, keep them inside or under control when nesting season and migrational periods are in full swing. The cat is not at fault for instinctively hunting. The owner is at fault for letting it do so.

Many residents enjoy bird feeding but do not want to see a pile of feathers left by a neighborhood cat. To protect birds at

feeders, place the feeders in areas where cats cannot get to them, away from limbs or other platforms from where cats can jump. If your neighbor's cats are in your yard, ask them nicely to keep them under control. Repeated offenders can be live trapped and turned over to city authorities as most urban areas have leash laws for both dogs and cats.

Source: Attracting Wildlife to Your Backyard, U.S. Geological Service. (SC)

Environmental Focus



Reduce Costs and Increase Yields with Biosolids!



Now that harvest activities are over, are you thinking about ways to improve production and cut production costs? You can reduce your out-of-pocket fertilizer costs, improve poor soil and increase yields by using municipal biosolids. This material is high in organic matter and contains all the nutrients that are needed by crops to grow. Most cooperating farmers see a yield benefit for 3-4 cropping years after an application.

To defray the cost of application, the city of Lincoln is paying up to \$.65 per cubic yard for application. If you don't have spreading equipment, you can rent a spreader from the city for a very reasonable cost.

Cooperators must have a loader and be able to apply the materials in a timely way. If cooperators are interested, they should sign up for the biosolid program before Jan. 15, 2003. They will be eligible for biosolids after soil tests are taken in the spring of 2003 and their field has been approved for application.

To receive paperwork or to find out more about the benefits of using biosolids, contact the extension office at 441-7180 and ask for Barb Ogg or Dave Smith.

Enjoying Your Backyard Wildlife

- Providing a water source year-round attracts birds for drinking and bathing, and results in fascinating scenes of bird behavior at the bird bath. Clean feathers insulate better, and bathing helps birds keep parasites down. Many bird baths are available for purchase, and substitutes can be made from large clay saucers, upside-down garbage can lids, or similar containers. For winter months, a bird bath heater is a great addition for keeping the water open and available when birds need it.
- Keeping your bird feeding station clean is an important part of a bird feeding program. Because birds congregate at feeding stations, there is increased potential for transfer of disease from one bird to another. To minimize risk, keep feeders clean and disinfect them occasionally; a solution of one part household bleach to nine parts water is convenient and works well for this.
- During fall clean-up time, try to leave some leaves under shrubs or in other spots where they won't cover your lawn grass and where birds can find them. Leaf litter makes a great spot where birds such as rufous-sided towhees, Harris' sparrows and others can forage for insects, seeds and other foods.
- Add a brush pile. A brush pile will provide winter shelter and foraging sites for birds, and often adds interest to an out-of-the-way backyard spot. After Christmas, add a Christmas tree or two.
- Keep a journal. Keeping a few notes in a backyard journal about what happened in your yard, can be a fun and rewarding adventure. Over time, you will have a great record of what to expect and when. Examples of things to include might be what birds come, what season or time of day they first show up, favorite plants or places in your landscape, where and how long they feed, what foods they like, behavior such as who chases whom and sounds you hear. You might also note your thoughts or feelings about the wildlife you see and your experiences. A backyard journal can help tailor your landscape or feeding programs in other years. What a terrific learning exercise and fun activity to do with children or as a family. (SC)

Source: NebGuide (G97-1332) "Backyard Wildlife: Tips for Success" available from your local extension office or on the Web at lancaster.unl.edu.