

It's the Dose That Can Harm

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Each spring, just as millions of Americans are looking forward to a return to their outdoor lives after spending the winter as virtual shut-ins, a whole host of voices rise up in a chorus proclaiming that turfgrass pesticides are dangerous to our health. They cite wide-ranging, yet impressive statistics on the amount of these chemicals used each year.

Americans spent \$6.4 billion last year on lawn-care products, up 13% from 1989.—*Time Magazine*, June 3, 1991.

With spring in full bloom, millions of Americans are applying millions of pounds of chemicals to their lawns to kill weeds and bugs and make the grass grow thicker and greener. An estimated 51 million homeowners do the work themselves. More than 8 million hire professional lawn care companies to do the job. The sale of lawn care products and services has developed into a multi-billion-dollar business." Sen. Joseph Lieberman, May 9, 1991.

While some non-scientific commentators would lead us to believe that all of this turfgrass pesticide is killing us, the truth is that the life-threatening potential of pesticides is no greater than food coloring and preservatives, prescription antibiotics and spray cans! Less than 10 people a year are killed by any of these causes!

Although even a single death is one tragedy too many, the hype and hysteria being whipped up about turfgrass pesticides by the media, self-appointed watchdog groups and even legislators grossly overstate and misrepresent the facts. These chemical critics fail to report that since 1956, there has been a steady decline in the number of lethal pesticide-related accidents each year (from all causes, not just turfgrass chemicals). In 1956, there were 152 such deaths; however, by 1984, there were only 27 and the number continues to decline.

In fact, far more children have died from accidental overdoses of aspirin than from pesticides, by a sizable margin. Bicycle accidents, by comparison, kill 100 times more people each year and swimming accidents kill nearly 400 times more people.

As the volume of pesticide used annually has expanded and the number of pesticide-related deaths has declined, the overall lifespan of Americans has increased. Just since 1920, before the wide-spread use of any pesticides, lifespans in the U.S. have increased from 54 to 75 years. While many factors in addition to pesticide use have contributed to this increase, it should be obvious that if increased pesticide use was highly fatal, both the number of directly related deaths and the overall lifespan would not have made such significant changes to the good.

Turfgrass is a way of life to most people. If we don't have a lawn of our own, we cherish even more the public parks and playgrounds with their large grassy areas that provide us a relaxing, enjoyable and refreshing part of our lives. The Lawn Institute estimates that there are some 25 to 30 million acres of turfgrass in the U.S., with over 20 million of those acres being home lawns.

In addition to providing people with an outdoor area to enjoy life, an aesthetic benefit, grasses also provide a vast array of functional environmental benefits, many of which are not immediately considered by the public. These include:

1. Water purification
2. Pollution absorption
3. Particulate entrapment
4. Oxygen generation
5. Temperature modification
6. Erosion control
7. Noise abatement
8. Glare reduction
9. Allergy control
10. Fire retardation

11. Groundwater replenishment
12. Safe play/sport areas

While people enjoy the mere presence of a lawn, turfgrasses are better able to provide their environmental benefits when they are made stronger through the proper use of chemicals. Without the use of pesticides lawns can quickly weaken, becoming thin and unable to perform their environmental role.

Fortunately, turfgrasses and pesticide useage can be very successfully combined, to achieve a highly functional environmental advantage, while naturally providing spaces of beauty and places to play and relax.

Practicing these common sense guidelines will help assure that everyone benefits from turfgrass use, and no one is harmed:

(1) **Accurately determine the "target" pest.** In lawns, fungi can create symptoms almost identical to damage caused by insects. Know what the real problem is before you treat an area and use only the proper chemical.

(2) **Know the size of the area to be treated.** Step-off or carefully measure large areas to know how many square-feet of space require treatment. This will help you calculate the amount of chemical to purchase, mix and use.

(3) **Carefully read all label directions.** The label will instruct you on the specific use of the chemical, including the proportions to use to control a particular pest. It will also provide cautionary advice regarding the chemical's use around non-target items such as other plants, animals and people. While the print is oftentimes very small and seemingly involved, its careful reading is worth the extra minute or two it may take.

(4) **Be familiar with the operation of your sprayer or other application device.** Test the unit with plain

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water to determine how much volume is used in normal applications. If you're treating a lawn with a hose-connected sprayer, fill the unit with water and by trial and error determine how fast you need to walk and wave the sprayer to apply the proper quantities.

(5) **Mix and use only the amount of chemical required to treat the smallest area needed.** Combining the knowledge you have of the size of the area to be treated, the amount of chemical required by the label and the capacity of your application unit, prepare only the minimum amounts of chemical. "More is better" does not apply to chemical use.

(6) **Thoroughly wash all items used in the chemical application procedure.** If you've used a sprayer, partially fill it with water and spray the area you just treated, or other nearby similar areas. Repeat this two or three times. Do not just dump any extra chemicals into the sewer or onto the street. Although it may not be highly toxic, it could have a negative impact on the environment of a non-target.

(7) **Use common sense whenever you're using chemicals.** Window washing solutions and antifreeze are more toxic than yard chemicals a homeowner will use, so all chemicals should be treated with care and respect. Eating or smoking should be totally avoided until you have thoroughly washed with soap and water. If any chemicals are sprayed or splashed on you during their use, remove the garments and wash them separately from other clothing. When using chemicals outside, be sure that any toys (used by children or animals) are removed from the area to be treated so they won't be hit by the spray or drift.

(8) **Be a good neighbor by knowing special sensitivities of people, plants and pets.** Paracelsus, the Swiss physician and alchemist who lived during 1493-1541 noted, "What is there that is not a poison? Only the dose makes a substance not a poison."

Chlorine can kill or it can clean. Aspirin can relieve pain or cause death. For a very, very few people, sunlight can cause an allergic reaction that results in death. It's not the substance, but the dose that can harm.

Turfgrass pesticides are effective because they have been developed for use against a specific target. Herbicides kill weeds, fungicides control diseases and insecticides eliminate insects. A herbicide will have no real effect on an insect simply because the chemicals used in herbicides aren't poisonous to bugs.

People, plants and pets may have particular sensitivities to any number of products, including pesticides. Being aware of these sensitivities when using turfgrass chemicals is being a good neighbor. This would include letting your ultra-sensitive neighbor know you'll be spraying a particular product on your property, avoid using herbicides around sensitive plants that could be stunted or killed by accident, or suggesting that your neighbor keep their pets off of your yard to avoid any potential problems.

In answer to those who criticize or question the use of pesticides on lawns, it should be noted that the environmental and aesthetic benefits of lawn are dramatically increased when the grasses are healthy and growing vigorously. While pseudo-scientists and scare mongers are able to sensationalize an issue through the manipulation of information, practicing scientists have shown that the benefits of turfgrasses can be substantially increased through the proper use of pesticides and fertilizers, without a significant risk to man or his environment.

Know what the real problem is before you treat an area, use only the proper chemical and only treat when the occurrence warrants its use (utilizing IPM practices). Also consider alternative pest control methods.

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FORGOT & FOUND

A White Tractor Chair
was left at the
Annual Conference.

It may be claimed by
calling the MGCSA
Office at (612) 473-0557

NST Announces Staff Changes

In an effort to serve its customers more efficiently, North Star Turf has announced some personnel changes within its sales staff.

Effective January 1, Joe Churchill assumes the position of sales manager and will direct the selling efforts of the company's sales staff. Before assuming his new position, Churchill worked a sales territory including part of the Twin Cities metro area and south-western and western Minnesota. Churchill came to North Star Turf in 1990 after 12 years of service with Northrup King's Medalist Turf Division.

Filling Churchill's vacated sales territory is Greg Brodd. Brodd joins the NST sales staff after working two years as the company's service coordinator. His background and recent experience coordinating service work at NST helps qualify him as the company's newest technical sales representative.

These changes come at the same time that NST announces the retirement of Allen Gerdin after 30 years with the company. He will continue to work on a part-time basis during peak season, providing sales support within the company's St. Paul office.