# **Facts About Golf Course Pesticides**

#### 1. Why do golf courses use pesticides?

Pesticides help to limit the damage that can be caused by insects, weeds and plant diseases. Insecticides, herbicides and fungicides are used very selectively to protect the health of turf, trees and other living things on the course. Fertilizers provide much-needed nutrition for the course's plant life.

It is very important to note that the pesticides and fertilizers are not used primarily for aesthetic reasons. First and foremost, they are tools that help ensure a healthy playing surface for the game. Furthermore, they help to protect a valuable and ecologically important piece of land. Golf courses are tremendous economic assets as well as vital greenspaces for communities. They employ hundreds of thousands of people, enhance local economies through tax revenues and tourism and provide many ecological benefits. For example, golf courses help to filter air pollutants and create fresh oxygen, they are excellent groundwater recharge sites and, most importantly, they are critical wildlife sanctuaries in urban and suburban areas.

### 2. How does a superintendent decide when to apply a pesticide?

Pest problems on golf courses are often relatively predictable or can be diagnosed as part of an ongoing monitoring program. Once the problem has been identified, the superintendent considers the available options. These could include cultural practices (such as physically removing weeds, changing irrigation patterns or clearing underbrush around a problem area to allow more air movement) or the use of biological controls or chemical products. Once the problem is diagnosed and the right treatment has been selected, the superintendent waits for the ideal time to treat the problem in the most effective and environmentally sound manner available. This approach is often called "integrated pest management."

#### 3. What kinds of products are used?

Most people are surprised to find that the majority of the pesticide products used by superintendents are identical or closely related to those used by homeowners.

#### 4. How do we know that these products aren't harmful to humans or wildlife?

Pesticide production is one of the most highly regulated industries in the United States. Before a product is registered by the EPA, it must be rigorously tested for potential human health and environmental effects. This process can take up to ten years and involve more than 120 different tests and studies. Today, manufacturers often invest up to \$50 million in product safety and testing before a new pesticide ever comes to the market.

#### 5. Are golfers at risk?

No. There is no scientific evidence that golfers face any chronic health risks from the pesticides used to maintain courses. Once a liquid product is applied and the turfgrass is dry or the product has been watered in, there is very little chance of exposure to golfers or others who enter the area. It is worth noting that a small percentage of people may be allergic to a particular product, just as some people are allergic to household cleaners, soaps or perfumes. Golfers with possible chemical allergies are always encouraged to contact superintendents to find out what products might be in use.

### 6. If the products aren't that dangerous, why do professional applicators wear protective gear?

Applicators work directly with pesticides and are exposed much more often than golfers. Consider the fact that it is safe for a person to have an occasional x-ray, but the technician may actually leave the room to prevent repeated exposure. Pesticide label directions (which carry the weight of law) require that applicators take certain precautions based on the assumption that the same person will be repeatedly exposed to the same product over many years. These precautions may include the use of rubber gloves, goggles, respirators or protective clothing.

## 7. Some media stories suggest that pesticides are linked to cancer. What are the facts?

Most of the product testing required by EPA focuses on this question. Before a product is registered, tests are done (usually on laboratory rats) using exposure rates that are considerably higher than any exposure a golfer could ever receive. Although a recent study commissioned by GCSAA to examine causes of death among its members found some higher rates of certain cancers, researchers said that no cause-and-effect relationship could be established from the data. They also said that lifestyle choices (smoking, diet, stress, etc.) were the most significant factor in the results.

### 8. Do properly applied chemicals pose a threat to groundwater, lakes or streams?

No. Studies consistently show that a well-managed golf course can actually improve water quality on and around the facility. Research also shows that when pesticides and fertilizers are used properly, they do not tend to seep into groundwater or run off into surface water. Modern products and practices allow superintendents to manage turfgrass so efficiently that there is little chance of harm to our precious water resources.

(Continued on Page 36)

### Pesticides -

(Continued from Page 9)

#### 9. What kinds of training and education do superintendents and golf course applicators have?

Golfers are often surprised to find that most superintendents have college degrees in agronomy, horticulture or a related field. Because it's important to keep up-to-date with new information and technologies, the majority also attend continuing education programs offered by universities and associations like GCSAA. Superintendents are widely considered to be among the best-educated and most judicious users of pesticide products. The vast majority of superintendents are using integrated pest management practices to ensure that both the turf and the environment stay healthy. Applicators are also trained and licensed by the state. A recent study indicated that nearly 100 percent of GCSAA-member courses had at least one licensed applicator on staff (despite the fact that it isn't necessarily required in some states). This confirms a high degree of compliance and concern about safe and proper usage of chemical tools.

Anyone with a question about golf course pesticide practices is encouraged to talk with their local superintendent or call the GCSSA at 913/841-2240 to find out more.

## Best Bunker Sand From Plaisted Companies Is Preferred Choice Throughout Minnesota

With some suppliers, you can only hope for bunker sand that's consistent from one year to the next. But with Best Sand, you can count on the same top-quality sand, from the same company-owned quarries, meeting the same tough specs, truckload after truckload.

For bunker sand, topdressing, drainage gravel and more, do what so many Minnesota superintendents have already done. Call the Plaisted Companies at 612/441-1100 and order the Best Sand products you need now.



