A Well Deserved Tribute

By Mark Kienert

It was at the Reinders Turf Conference in about 1980 that I first met Rod Johnson. I remember this well as it was my own curiosity that told me to seek him out and size him up. For you see, he had just beaten me out for a position that I had applied and interviewed for. An assistant golf course superintendent had beaten me out of a position I had wanted. I was a superintendent, my pride was broken and my ego bruised, and here he was, just a few feet away looking and walking right towards me.

"My God," I thought, "the victor."

What brilliant thing could I say besides "congratulations." Time has eroded the actual content of the conversation during those first awkward moments. But I do recall assessing our interview with the "short-lived" general manager who had "experienced everything that a golf course superintendent had experienced."

This guy spent more time talking and contradicting everything we said that I often felt he was interviewing for the position himself. I remember the laughter Rod and I shared as a result of our interviews. I thought to myself that this guy was just like me, hungry for success in this industry for himself and his family. I found Rod to be humble and unassuming then, just like I do now.

Through the years our paths would cross from time to time as our backgrounds shared some common threads. For both he and I worked at North Hills Country Club under the

tutorage of Bob Musbach. Rod would call Bob from time to time "just to see what was going on." We often compared notes on all of our special projects and the goings on during the Lombardi Golf Classic, an event we both learned to love and hate. Soon, we would be sharing rooms in the warm up for the upcoming golf season by attending the Midwest Turf Conference at Purdue University.

It was always the right tonic to get you thinking about shaking those winter doldrums. It helped, too, that it was a road trip.

It was also during these conferences that I first became early pigeon fodder and cheap practice for Rod's many practical jokes—simple practice for the havoc he would inflict on the "Old Man" Wayne Otto in the years to come during their frequent golf tour stops at the GCSAA golf tournaments.

At Purdue, we always insisted on the same room, year after year, for any number of special reasons. It could have been for the scenic view of coeds walking to class or the beer tab hidden in an almost too obvious spot behind the curtain. This beer tab survived the rigorous cleaning by room service for three straight years,

Or maybe we liked the room because it was a simple number to remember after spending a long night at the "Chocolate House" debating the merits of which greens mower—Jacobsen or Toro—would be better suited for an operator with one leg shorter than the other.

But, of course, if you want to find out more about Rod's humor, Mike Lyons, Scott Schaller, Marc Davison, Wayne Otto, Bill Roberts or Monroe Miller would be better suited for the task of explaining some of his more inventive or notorious practical jokes. He is very devious in his craft.

If Rod were a commercial writer for some large ad agency, I am sure he would write ads like the one promoting ESPN's "Twelfth Man Competition". You know, the one with the dufus standing in the football field, gawking at the large empty stadium, soon to be plowed under by the tackle from some large linebacker coming out of the tunnel at the opposite end of the field. This commercial is like Rod's humor—always subtle, but WHAM! Before you know it, it is right on top of you.

I'll be honest with you. I have always been envious almost to the point of jealousy of Rod's great attitude toward his work and his life. No black clouds hanging around this man's head. He has that magnetic personality. People enjoy being around Rod, and He clearly enjoys being with other people.

Rod is very innovative, possesses keen intellect and has sharp insights. He is responsible for developing the first "water cooled" greens mower in the state. I recall the time he demonstrated a new greens mower—green in color—that came with a large pod-like storage compartment that he quickly converted into a beer cooler. When the salesman came to pick up his unit and

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J.W. TURF 14N937 U.S. Hwy. 20 Hampshire, IL 60140 708-683-4653 give his best sales pitch, Rod complained about the large puddle of "fluids" coming from the machine and making a mess of his shop. Of course the salesman was horrified. It wasn't hydraulic oil or motor oil or anti-freeze (air-cooled engine, naturally). But there was still the fact that fluids were definitely dripping from the machine onto the floor. Soon afterward, Rod's prank was discovered and the machine was reengineered "lighter, twelve ounces at a time."

His years on the Wisconsin GCSA board of directors didn't go without notice, either. It was during my second year that Rod was elected to the board. What a brain trust we had in those days-Miller, Quast, Roberts, Bell, Worzella. Rod didn't take a back seat to any of them. He quickly rose to the position of WGCSA secretary. He would record the minutes of the association with a small take recorder to insure that his minutes accurately reflected all business being discussed. For this and all his efforts, he was sent flowers on Secretary's Day, a thought I am sure he didn't appreciate as much as we did.

It was a joy to witness a real matu-

ration process with Rod. It was a process that seemed to start to grow and flourish during the election campaign of Bill Roberts for GCSAA office. His confidence level rose with each year and position that Bill attained. It is at the point now that I feel that Rod is a highly electable figure on the national scene should he ever decide to run for a GCSAA position himself.

I've always classified the evolution patterns of successful golf course superintendents with the evolution of their respective golf courses. That is, during the initial career stage, the projects are small and compact in nature. As the years of success start to accumulate, the size and scale of projects undertaken grow. The benefit to the players become more geometric than straight line. My observation hasn't been more true anywhere than Pine Hills, Rod's course. Landscaping progress around the tees has been fitting and subtle and beautiful. This probably explains why we spent hours driving around the state of Indiana cataloging bridge colors and paint schemes, selecting the best for the bridge that crosses the river on the eighth and tenth holes.

Others have appreciated and taken advantage of Rod's abilities, too. Monroe Miller quickly appointed him as business manager of THE GRASS ROOTS and assigned him the task in insuring the magazine's financial security. He served the WGCSA very well as its president for two years. It was during this time that he was appointed to the Ad Hoc Committee that would study the revisions to AG-29. It was through this committee assignment that he developed the idea for the WGCSA Sign Compliance Kit. This stroke of genius paved the way for the WGCSA to contribute at a level that not only got us into the GCSAA Platinum Tee Club but to give "GCSAA's largest contribution by a chapter in the Association's history.'

There could be no member more deserving of the WGCSA Distinguished Service Award than Rod Johnson. His selection is almost anticlimactic.

"I hope it came as a surprise to you, Rod, because we are seldom able to put one past you."

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What, I ask, generates more questions or more conversation among golf course superintendents than the height of cut of the various features on their golf courses? Green speed, maybe. But the height of cut issue is a favorite and one of the most interesting things to discuss and analyze.

I got to thinking about it during Field Day when I saw so many of my colleagues and friends for the first time in months (no reason to attend WGCSA summer meetings anymore). I was startled during some of those conversations that the putting green heights seemed to be creeping down again. In some instances, leaping down would be a better choice of words than creeping down.

The obvious occurred to me—ask around and find out where a lot of courses of all varieties are this year in feature cuts.

Below are the results. Interestingly, green heights were almost all given in decimals while others were the standard fractions. For consistency, I converted all heights to decimals.

| GREENS | .156 | .150 | .145 | .140 | .135 | .130 | .125 | .120 | .11 | 5 .109 |
|-------------------|------|-------|-------|------|-------|-------|--------|-------|-------|---------|
| Private Public | 2 | 3 | 2 | 2 | 1 | 1 | 6 | 1 | 3 | 1 |
| Muni | 3 (| One d | ourse | was | cutti | ng p | utting | g gre | ens a | t .188) |
| TEES | .250 | .300 | .313 | .375 | 5 .40 | 00 .4 | 140 | 470 | .500 | .625 |
| Private Public | 2 | 1 | 3 | 7 | 1 | | 3 2 | 1 | 2 | |
| Muni | | | | | | | | | 2 | 2 |
| COLLARS | 3 | None | .250 | .313 | 3 .37 | 75 .4 | 400 | .440 | .500 | 1.250 |
| Private Public | | | 2 | 2 | 4 | | 2 | 2 | 7 | 1 |
| Muni | | 2 | | | | | 2 | | | |
| APPROAG | CHES | 3 | .313 | .37 | 5 .40 | 00 .4 | 140 | .500 | .625 | .750 |
| Private | | | 2 | 4 | 1 | | 3 | 10 | | |
| Public Muni | | | | | 3 | l . | 1 | | 3 | 4 |
| WILLI | | | | | | | | | 3 | 31 |

| FAIRWAYS | | | 440 | .500 | .563 | | .625 | .750 |
|----------------|-----|-------|-----|-------|-------|------|------|------|
| Private | | | 1 | 15 | | 1 | 2 | 1 |
| Public | | | 1 | 3 | | | 1520 | 138 |
| Muni | | | | | | | 3 | 1 |
| FAIRWAY COLLAR | | | 1.0 | 1.125 | 1.250 | | 1.5 | N/A |
| Private | | | 2 | 3 | 5 | | 4 | 6 |
| Public | | | | | | | | 4 |
| Muni | | | | | | | | 4 |
| PRIMARY | | | | | | | | |
| ROUGH | 1.5 | 1.563 | 2.0 | 2.25 | 2.5 | 2.75 | 3.0 | 3.25 |
| Private | 1 | 1 | 5 | 3 | 5 | 2 | 2 | 1 |
| Public | | | 4 | | | | | |
| Muni | 4 | | | | | | | |

From this limited survey, several things are clear to me:

 Green heights are really getting low. Makes me wonder how some of you are sleeping on hot, humid summer nights.
 In the private sector, over half surveyed are cutting at an eighth of an inch or less.

2. Public courses and municipal courses fairly consistently have the higher feature cuts, indicating a response to the heavy play they receive.

3. I always assumed that collars and approaches were cut at the same height; not so.

4. Fairway heights are impressive. There should be little complaining about that from our golfing clientele.

As I was doing the SURVEY, I was wishing I'd asked the same questions ten years ago. A "then and now" comparison would have been interesting. Guess I'll do that ten years hence from this issue.

Finally, thanks to Chad Eberhardt for the help. He always comes through.

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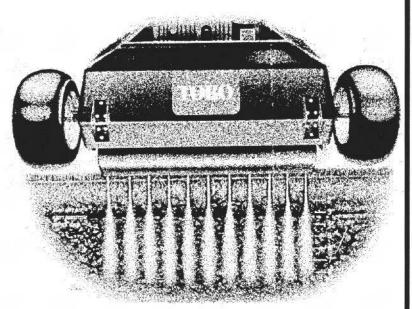
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At a time when our society is more obsessed with images and less with becoming educated on a topic, the need for continuing education has never been greater. As you know, the Wisconsin Turfgrass Association is dedicated and committed to providing support for turfgrass education and research. To respond to the increased demand for intensive high quality education, the WTA working with the University of Wisconsin Turfgrass Group, has entirely redesigned the Winter Meeting. We are proud to invite you to be a part of the Inaugural Wisconsin Turfgrass & Green Industry EXPO-94 to be held in Madison, WI from Monday, January 3 through Wednesday, January 5, 1994.

The EXPO will include significant changes over past WTA winter meetings such as; expanded educational sessions focused on golf turf, grounds and sports turf, and lawn and landscape issues; 6 two hour focus sessions addressing basic and advanced educational needs in a more in-depth forum; a 30,000ft² trade show floor filled to capacity with the latest equipment and technology available to the turfgrass and landscape manager (many of Wisconsin's own manufacturers); and internationally acclaimed speakers addressing biological, cultural and environmental issues facing the green industry today.

EXPO-94 welcomes two special UW-Alumni; Paul Zwaska, Field Superintendent for the 1993 Major League Baseball All-Star Game held at Oriole Park at Camden Yards (home of the Baltimore Orioles) discussing athletic field management and predicting the weather and Dr. Milt Englke of Texas A & M University, a world renowned turfgrass breeder discussing new bentgrass cultivars and utilizing alternative grasses in Wisconsin. Other speakers include Dr. Bruce Clarke from Rutgers University discussing Turfgrass Disease Manage-

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ment, Dr. Mark Carroll of the University of Maryland discussing the use of sod to prevent soil erosion during construction and irrigating lawns, Dr. Kirk Hurto from TruGreen Chemlawn discussing pesticide residues on home lawns with regard to posting, and Dr. Mike Raupp from the University of Maryland discussing integrated pest management and identifying beneficial insects in the landscape. Additionally, for all of you who attended the 1993 Field Day, you will be excited to see the results from the field trials you toured and be able to interact with the entire UW-Turfgrass Group.

The planning committee has worked hard to secure the lowest possible room rates and conference fees to ensure equal access to all participants and, as always, all proceeds go towards the support of turfgrass research and education. The entire turfgrass industry will benefit from this expanded format and we look forward to having you as a part of the future direction of the turfgrass industry. If you would like further information contact us at 608-845-6536. See you at the EXPO!!



Kettle Moraine Hosts Disappointing WGCSA Tourney Meeting

By Pat Norton

Only 42 golfers signed up for the postponed WGCSA tourney meeting at the Kettle Moraine Golf Club in Dousman on October 4. Either people were extremely busy on that particular day, or more than likely there was a bit of dissatisfaction amongst our members with the high cost of this meeting. I think that the later reason is more probable.

Frank Rossi gave a brief, but interesting talk about the need for better "Communication" — from the superintendent to the golfers and the public in general. Too many of us, myself included, are not strong enough advocates for what we do, the pros and cons of the materials we use, or, the benefits of golf and golf courses in general.

WGCSA Tournament Winners include:

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1. Mike Handrich

Chad Ball

2. Tom Van Valen

Steve "the Blender" Blendell

3. John Gallus

Mark Hjortness

Non-Member (Affiliate & No Handicap) Tournament Winners Include:

NET

GROSS

1. Paul Feldhake

Ed "Almost a Pro" Devinger

2. Marty Kardian

Brian Hagensack

3. Jeff Gibson

Brian "I Always See Red" Schmidt

Handrich, by the way, was the unanimous choice for this month's fictitious "GQ" award. His natty attire and scrubby whiskers had the waitresses swooning and his colleagues in awe as he attacked the golf course in his decidedly "dressed down style."

A special "Thank-you" goes to those Affiliates who sponsored hole prize donations. These generous people included:

Reinders Brothers (Ed Devinger) — closest to pin on no. 3, Ed Devinger - winner

Horst Distributing (John Mortimer) — longest drive on No. 17. Scott Schaller - winner

Wilbur-Ellis (Joe Wollner) — closest to pin on no. 7, Don Schaffer - winner

Pendelton Turf Supply (Ed Witkowski) — longest putt on no. 9, Ric Lange - winner

Lesco (Mike Kositzke, Gary Sorenson) — closest to pin on no. 18, Paul Feldhake - winner

O.M. Scotts (Wayne Horman) — longest putt on no. 13, Tom Merkel - winner

Wisconsin Turf (Curt Larson) — closest to pin in two on no. 16. Joe Wollner - winner

Kettle Moraine is really a fine public golf facility and those that did attend really enjoyed the hospitality and the golf course. This place is what public golf is all about — nice people, friendly atmosphere, fine facility, and a good golf course. Also, they've rebuilt their clubhouse — it's really nice and built to attract all sorts of functions, making Kettle Moraine Golf Club a very modern, very complete public golf facility.

Thanks to all who either organized or attended the Tournament Meeting!

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Shaw's Ace Highlights **Trappers Turn Meeting**

By Pat Norton

Jim Shaw, ace superintendent at Chenequa Country Club in Hartland, scored an "ace of the golfing kind" as he banged home an eight iron for a hole-in-one on Trapper Turn's 144 vard No. 15-at the July 26 WGCSA golf meeting.

The infamous "canyon hole," heavily rumored to be Supt. Renner's favorite hole because of the agronomic challenges it presents, proved to be no match for Shaw as he stroked his ball solidly into the hole. Congratulations, Jim!

Over ninety WGCSA members and their quests enjoyed themselves immensely as they toured this very plush, very beautiful Wisconsin Dells

course.

Turnout for this meeting was huge -by far the largest number of any 1993 meeting-and Renner did not disappoint. The golf course was just great, amazing considering its young age-it was a great tribute to Jake and his capable staff. Beautiful bentgrass fairways, imposing mounds, and some very interesting golf holes had everybody talking about this great public golf facility.

As I write this, I realize that I'm not able to report team winners or hole prize winners due to a lack of diligence. I didn't stay around to get the information from their staff! - but

who the heck cares?!

The important thing is that we had participants from all around the state, an ace from a long-time WGCSA member, big numbers of people, a great day weatherwise, and an excellent golf facility that really appreciated us being there. What a treat!! We definitely need to hold more meetings like our July meeting at Trapper's

WGCSA Tourney Meeting Rained Out

By Pat Norton

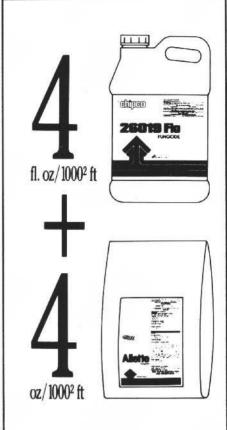
What a disappointment! And nobody was more disappointed than host superintendent Scott Schaller when Mother Nature forced postponement of the September 13th WGCSA Annual Tournament at South Hills in Fond du Lac.

About 70 golfers were primed and ready to take on South Hills, a club that has undergone some major, heavy duty renovation in the last six to seven years. From an insider's point of view, it's heavily rumored that the South Hills BoD realized long ago that Norton and especially Semler had to go before the membership and the Board felt comfortable enough to invest money into improving their golf course and clubhouse. This place definitely deserves some sort of

"most improved" award - it's really too bad that our Tourney could not be held there!

Rob Schultz, Sports Page columnist for THE GRASS ROOTS (and The Capital Times) was the dinner speaker, and gave us his opinions and insights into the world of Wisconsin golf and the Wisconsin sporting scene.

Schaller had leaned heavily on several of our strong Class "E" Affiliated Members to sponsor hole prizes. All of these supportive suppliers agreed to carry over their sponsorships to the October meeting at Kettle Moraine. More about these great people in the "Kettle Moraine Chews Up & Spits Out the WGCSA" article to follow.



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The Pesticide Debate

By Randy Kane, Chicago District Golf Association and Tom Voigt, University of Illinois

Editor's Note: This feature should be under the heading of "From Across The Border.' The Pesticide Debate is reprinted with permission from Dr. Ken Diesburg, editor of Illinois Turfgrass Update.

Over the last few years, there have been increasing concerns about the use of synthetic pesticides in agriculture and horticulture. Environmental activists have waged a broad attack against the chemical control of pests on golf courses, home lawns and other turfgrass areas because people and their pets may be exposed to potentially toxic materials. Many environmentalists believe that the benefits of controlling turfgrass and ornamental pests are outweighed by the risks to human health and the environment.

Pesticide critics have brought the subject into public view by gaining access to broadcast and print media. The result often has been sensational and emotional stories of the problems and misuses of pesticides, as well as supposed poisoning cases. In several reports, golf course superintendents, lawn care operators, and other turfgrass managers have been accused of applying pesticides and fertilizers that have been excessive, unnecessary, or both, to maintain high quality turf. Some authors go so far as to suggest that golf courses seriously threaten the environment because of the pesticides used on them and should be considered toxic waste

Recently, turf- and ornamental-related industry representatives have sought to counter environmentalists' claims and answer questions about pesticides and their possible effects on the environment. Also, representatives from the agrochemical industry, such as pesticide manufacturers and dealers, have disputed anti-pesticide views and have said that their products are safe and effective when used as labeled.

Should we be concerned about pesticide use on turfgrass? Before we can answer this question, we need to know what pesticides do; why pesticides are needed for turf management; how much and how often pesticides are actually applied; and their potential for adverse effects on man, wildlife and the environment.

Defining Pesticides and Toxicity

The term 'pesticide' actually encompasses a broad range of both naturally occurring and man-made chemicals used to control all sorts of pests. Pesticides can be categorized by the types of pests controlled; for example, insecticides control insects, herbicides control weeds, and fungicides control plant diseases caused by fungi. There are even avicides for controlling bird pests (birds can be pests, too—just look at the geese!). All of these and more are pesticides.

By their very nature, pesticides are poisonous to the "target" pest. Thus, there is always concern about how toxic a pesticide is to "non-target" species such as animals, birds, fish and humans. There are two types, or classes, of toxicity: (1) acute toxicity, which results from a single, high dose of a toxicant, and (2) chronic toxicity, which results from repeated or long-term exposure to a lower level of a toxicant. Most pesticides are relatively safe to apply because the ratings of their acute toxicity are very low.

One reason for these low toxicity ratings is that most pesticides are highly selective about what they poison. Deciding which pesticides to apply is based primarily on how the product works. Pesticides can be discriminating because most of our pests have physiological and biochemical systems that differ from us and from one another. For example, at labeled rates, fungicides do not control insects or weeds (or birds) and herbicides do not control insects or diseases. For this reason, fungicides and herbicides have a very low acute toxicity to man.

An important exception is insecticides, most of which work by poisoning the nervous system. Insect nervous systems are very similar to those of animals and man; therefore, many insecticides can be acutely toxic and require careful handling. However, most insecticide products are highly diluted during application,

so the actual amount of pesticide applied to control insects is usually very low and not toxic to higher organisms. Many insecticides used on commercial turf are also available to home owners and are quite safe when used as directed. In fact, many of the new insecticides are not nerve poisons and are accordingly more safe to apply.

Why We Need Pesticides

Highly maintained turfgrass is not just a green carpet that happens to need mowing and watering. Each specialized turf area (putting green, sports field, home lawn, etc.) actually consists of a large population of individual living plants. For example, a typical putting green can have 10 million to 15 million plants growing on it. In such a large population, it's highly likely that parasites or other pests will develop. There is always a natural progression of new growth, aging of tissues, and eventually death. Turfgrasses used on highly maintained areas have been selected over time for their ability to withstand frequent low mowing and the wear and tear of daily intended uses. These improved grasses, however, remain subject to various pest problems. In fact, highly groomed turfgrasses are actually maintained in an artificial or unnatural condition which increases their susceptibility to pest attack. Therefore, pest control becomes critical.

An example of an artificial growing condition is a bentgrass putting green mowed daily at one-eighth of an inch. If left to grow in a natural, unstressed state, this bentgrass would be 10 inches to 12 inches tall and much more resistant to pests. Another factor in the pesticide debate that needs serious consideration is the demand for picture-perfect turf conditions, such as those found at Augusta National or Comiskey Park. A single blemish from a disease or insect pest or a single patch of weeds has some-

(Continued on page 30)

(Continued on page 29)

how become unacceptable. Because of these demands, more pesticides and fertilizers are required.

Fanciers of "perfect turf" will have to reduce their demands if there is to be a drastic decrease in pesticide use, at least until viable alternatives to chemical pest control can be found. Remember that grounds managers try to match maintenance standards to public expectations. If the public will accept lower quality conditions, turf managers will use less fertilizers and pesticides.

The number of applications and amount of pesticides used varies widely among turf-use situations and depends on a number of factors, including budgetary constraints, weather, and turf-management expertise. In the Chicago area, for instance, most of 1992 was dryer and cooler than average, which reduced the amount of fungicide applications needed: most serious turfgrass diseases are caused by fungi that require warm and wet conditions. The frequent rains toward the end of this season could increase or decrease needs for other pesticides or fertilizers.

Many grounds superintendents are responding to concerns about pesticides and are trying to limit the number of pesticide sprays per season. Some ways they reduce applications are by using new pest identification, population monitoring, and predictive tools. On the horizon are some possible alternatives to pesticides such as biological controls, improved genetics leading to host-plant resistance, and alternative plants that naturally have fewer pest problems. When grounds superintendents employ more than one method to control pests, they are said to be using an "integrated pest management" approach.

Pesticide Safety

The terms most often used when discussing pesticide safety are risk and exposure. Risk is a statistical probability of some negative outcome, derived by multiplying the inherent toxicity of a chemical by the exposure. Exposure is a factor of the concentration of a substance and the amount of time you are in contact with it. To decrease the risk from a toxicant, either the toxicity of the product or exposure to the product should be reduced. For example, smoking cigarettes for a number of years greatly increases your risk of heart disease

and lung cancer, but the risk could be reduced by smoking low tar or nicotine cigarettes (lowered toxicity) or by smoking fewer cigarettes (less exposure).

Many people inaccurately believe that pesticides all present the same danger and risk. However, pesticides vary greatly in chemical structures and toxicities, and therefore have widely varying risk factors. The public strongly disapproves of pesticide use; surveys have shown that people generally view pesticides as having a fairly high risk factor for injury or death. In reality, scientific data rank pesticides very low in risk.

There also have been many attempts to link chronic pesticide exposure with various forms of cancer. Several common pesticides have been classed as possible carcinogens based on animal studies and are most often targeted by environmental groups. However, these products have been in use in all aspects of agriculture for as many as 40 years without observable correlated increase in cancer occurrences. Researchers now believe that lifestyle choices (diet, smoking, alcohol) account for 75 percent of cancers, whereas environmental pollution (all aspects of the environment, of which pesticides would play a very small part) account for about 2 percent.

The Environmental Protectional Agency oversees the safety testing of pesticides. Agrochemical companies must provide the EPA with data concerning the toxicology and environmental fate of candidate pesticides prior to registration and release for sale. This is in addition to all of the tests to confirm the effectiveness of a manufacturer's proposed pest con-

trol. It is estimated that up to 20,000 substances must be screened before a new product can pass the rigors of the registration process. Development and EPA registration of each new product often takes up to 10 years and may cost \$20 million to \$40 million.

Even so, some environmental groups are concerned about pesticide safety. They contend that the EPA has not properly evaluated all the pesticides currently available. Also, many products introduced before the 1980s have not gone through the rigorous testing that is required of today's pesticides. The EPA is in the process of "reregistration" of older pesticide products, which will probably "weed" out some compounds that have adverse toxicological or environmental effects.

Environmentalists also fear that not enough is known about the chronic effects of pesticides on birds and other wildlife at golf courses, sod farms, and other areas where turf is highly maintained. In fact, there have been very few scientific studies of longterm effects on the environment, part-Iv because such studies are hard to conduct. But there is indirect evidence that no serious harm occurs on treated turf areas when pesticides are used properly. For example, golf courses are often found to be excellent habitats for various forms of wildlife, especially birds. The United States Golf Association and the Audubon Society of New York Sate recently established a Cooperative Sanctuary Program for golf courses. The Audubon Cooperative Sanctuary Program promotes ecologically sound management practices and enhances and protects natural habitats on golf courses.



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