

## Making Tradeoffs for the Better

by Brady Surrena

Fermenta Plant Protection Co.

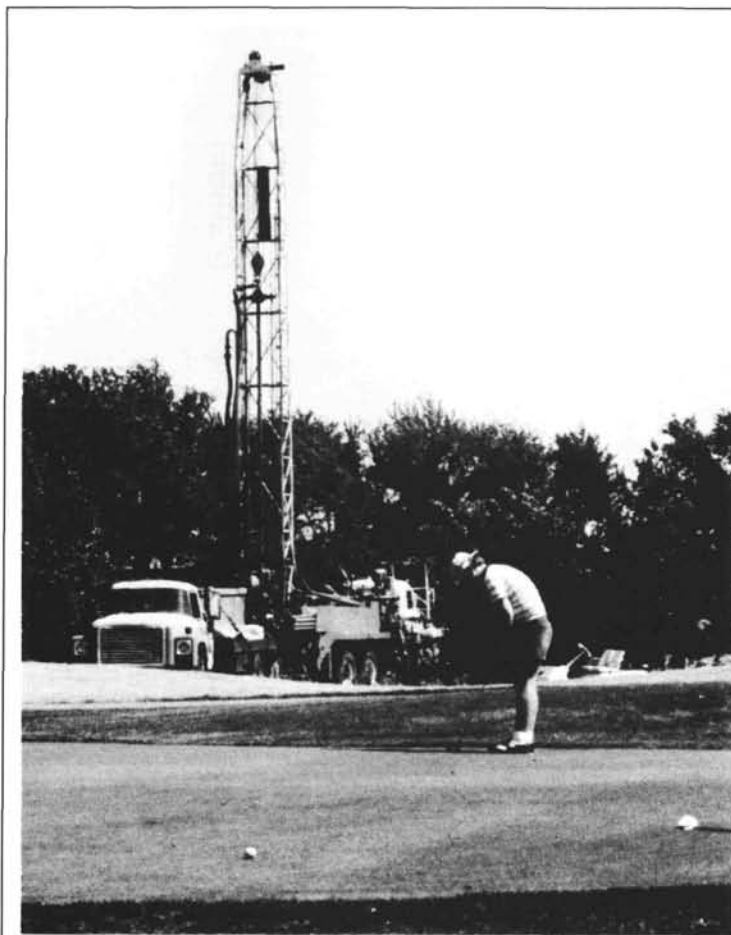
Man has been trying for centuries to alter his environment so it will suit his needs more effectively. This also applies to those of us dedicated to increasing the aesthetic and functional value of the turf. We accomplish this by mowing, fertilizing, irrigating, and applying pesticides in order to sustain a functional vegetative cover under totally unnatural conditions. We try to maintain monocultures of one or a few species when diversity is the rule of nature. The ecosystem is constantly trying to revert back to a natural state. We prevent this from happening through the use of modern chemicals. But some of these chemicals often cause further change in the already unnatural ecosystem.

We must be able to react to problems quickly, and to anticipate changes in the ecosystem resulting from our actions. Although evolution takes place with every change, the usage of certain pesticides and their effects on target as well as non-target organisms magnifies the occurrences of this normally subtle change in the ecosystem. Glaring examples of this exist when certain preemergent herbicides are applied to control grassy weeds. While the weeds are effectively controlled, the damage done to the root system of non-target or desirable fairway turf is unacceptable. Root inhibition of the desirable turf species removes their competitive edge and predisposes them to greater injury from disease and insects as well as encroachment from other weeds not controlled by the herbicides.

Interfering with nature's balance is also evident when long

lasting systemic fungicides are applied. Although it is very convenient to only spray once a month, the species specific nature of these fungicides not only eliminate a very narrow segment of harmful fungi, but also beneficial fungi that act as natural predators to help keep the entire fungus community in balance. Fungicides must be applied so as to maintain a balance that helps keep the beneficial soil microorganism at a constant level so they can aid in disease control.

Fungicides are very important tools in the high maintenance turf business. However, when planning a spray program, the effects of the various fungicides on the entire system and in particular, the beneficial non-target microorganism need to be considered. For example, Bayleton effectively eliminates a segment of harmful microorganisms, but constant use and high rates also eliminate beneficial fungus that help keep diseases in check. Diseases like brown patch, that are normally held in check are allowed to infect the turf unrestrained by beneficial microorganisms. Fungicides which are specific and long lasting are valuable if they are understood and used properly. Promising research has demonstrated that lower rates of systemic fungicides with broad spectrum contact fungicides will not only enhance disease control, encompassing many more diseases, but also reduce the adverse effect on beneficial organisms by not interrupting the system for an extended period of time. The tradeoff in this case is more frequent applications of systemic and contact tank mixes, but the benefits are a larger number of harmful microorganisms can be suppressed while at the same time allowing beneficial fungi to rebuild and perform their function before the next application. (cont'd. bottom of page 9)



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## The Insurance Crisis for Pesticide Users

As you are all aware, risk liability insurance for certain businesses, occupations, and services is becoming increasingly difficult to obtain, if even available at all at any cost. The following article, reproduced in its entirety, describes the current crisis surrounding this issue. The article, which appeared in the Winter 1986 issue of **The Bottom Line**, is entitled "Insurance Crisis Deals Touch Hand to More Than Just Pesticide Users."

If you're a pesticide user who finds comfort in numbers, then take heart — the insurance industry is not singling you out. Though you may have lost your pollution liability insurance, you are not alone.

Actually your market — pollution risk liability — is currently one of the eight most difficult markets to insure, according to the **Wall Street Journal**. The others include liquor liability, day-care centers, medical malpractice, high-limit coverage for industrial firms, asbestos removal from schools, commercial fishing and boat coverage, and municipal liability. The cost of policies available throughout 1985 rose 300 to 500 percent while coverage lessened, according to various industry journals. Now, insurers claim they have no choice but to exit the pollution liability market for 1986.

Across the industry, pest control operators, aerial pesticide applicators, utility right-of-way managers, arborists, lawn care companies, and even government agencies face the dilemma of paying for sky-high insurance policies or operating uninsured. Pollution insurance policies, which usually covered only "sudden or accidental" claims, have received broad interpretation by the courts resulting in large awards and high costs to insurers.

The **Wall Street Journal** estimated that the surge in suing has driven up the average product liability award from \$345,000 ten years ago to \$1.07 million. As the companies pay greater amounts for defense, insurers believe the only solution is to raise premiums and take fewer risks.

The National Pest Control Association estimated in another **Wall Street Journal** article that 450 of the nation's 9000 pest control concerns will have gone under in 1985 due to rising insurance costs and oppressive lawsuits. Homeowners are suing exterminators to collect damages for illnesses or deaths allegedly caused by the pesticides used. Even when the pest control companies win, the insurers lose — they foot the costs of the defense, which can easily add up to \$100,000 a lawsuit, according to William Savich, an Atlanta insurance broker specializing in a pest control companies.

Lawn care operators have encountered equally unpleasant insurance situations. Several states require operators to submit proof of pollution liability insurance in addition to proof of financial responsibility for general liability before licenses can be obtained. The alternatives are to seek an almost unobtainable, high-priced policy, operate in violation of the law without insurance, or don't operate at all.

Some operators who apply pesticides aurally, both for agriculture and rights-of-way, have been grounded by their insurance problems. Many large forestry companies require aerial applicators to carry their own insurance policies — which cost the applicators several hundred thousand dollars.

In 1986, some expensive policies will be available on a

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"claims made" basis, but they provide limited coverage at best, and only for the specific time period that the policy is in effect.

Insurers say recovery time will bring the industry policy prices back into balance. New techniques for moderation out of court will play a key role in reducing the burgeoning amount of legislation and the unreasonable amounts of jury awards. In the meantime, those who want insurance will have to pay dearly for it.

These suggestions may leave pesticide users frustrated, but as one industry expert said, "In increased professionalism through applicator training will be a key in turning the risk perceptions around.

"Better training, which will result in fewer claims through misapplications, coupled with a good public relations campaign, will demonstrate the industry's professionalism to the policy writers," he added.

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**DOW Chemical Co.**

(Tradeoff cont'd. from page 11)

Time versus efficiency has always been a major issue with chemical applications. Most turf managers are dedicated to producing the highest quality turf possible and most are willing to make additional treatments if the end result justifies them. The choice will become clearer as research by turfgrass pathologists continues to demonstrate that checks and balances are often altered or eliminated by certain types of chemicals. You will be able to see that it is more beneficial for you to apply chemicals in a manner that keeps the check and balances intact.