

The Price of Environmental Stewardship

by Don Spier, CIBA-GEIGY
Turf and Ornamentals

The golf course superintendent's management role is changing drastically. Ten years ago, the superintendent's basic responsibilities were: people management; budget management; and, turfgrass management. These aspects of the business are still important; however, the challenge of environmental stewardship is probably the most important concern facing today's golf course superintendent. Due to the public's increasing awareness of pesticide usage, a greater percentage of the superintendent's time and budget is spent addressing environmental issues.

The EPA Price Tag

In the last decade, total research costs for new pesticides have risen nearly five-fold. Listed below are some examples of things which increase the costs of new products; consequently, increasing the costs of maintaining a golf course:

★ Registering a new product with the EPA takes 4-5 years to generate data, and 2-3 years to process the information and results at a total cost of approximately \$28 million.

★ New testing requirements by the EPA measure the impact of developmental compounds on aquatic environments, non-target plants, bird populations and residue levels in groundwater. Each test can take 2 years to conduct at a cost ranging from \$.5 million to \$2 million.

★ The demand for increased quality control in data has increased the price for testing in contract labs. In 1988 cost to test a compound's impact on bees was \$2,000. The cost of the same test in 1989 was \$12,000.

★ Research costs have increased by the following amounts since 1980:

Dissipation & Groundwater 32*
Ecological Toxicology 8*
Metabolism & Fate 7*
Toxicology 3*
Residue 1.5*

Reducing Worker and Environmental Exposure

Packaging and formulation application costs have increased 35% since 1988 in the development of product enhancements to reduce worker and environmental exposure to turf products. Packaging innovations include dissolvable bags, biodegradable packages, and closed delivery systems.

Formulation changes that improve worker and environmental safety include lower use rates, capsules, gel-packs, clays, and polymers that reduce leaching.

Plant Facility Investments

At CIBA-Geigy, total costs to make chemical manufacturing facilities safer to workers and to the environment have risen 800% since 1984. Costs are projected to double in 1991.

Our Environmental Commitment to the Turf Industry

CIBA-Geigy Turf and Ornamentals recognizes that we are in partnership with the golf course superintendent to protect and preserve the environment. We hope that the information in this letter will help to explain the increasing costs of maintaining environmentally sound products.

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6 oz./1,000 sq. ft.



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Turf & Ornamental Fungicide

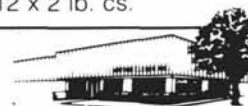
5-7 1/2 lb. per 1,000 sq. ft.
prior to first snowfall and
thoroughly water in
- 50 lb. bag

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8 oz. in 3-5 gal. water per
1,000 sq. ft. prior to first
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Your suppliers are business people with an interest in the golf industry. They are people who have invested their time, talents, and financial resources into a business venture that will provide a product or service that meets the needs of the golf course superintendent. They work hard to establish business relationships that emphasize cooperation between their customers and their companies. This business relationship is of mutual benefit to us all.

One of the costs and opportunities of doing business is the ability to support the various professional organizations that collectively patronize our businesses. Most of us have chosen to become members of MAGCS because this organization represents the "best" of the golf and turf industry. We have the greatest respect and admiration for the superintendents capabilities and responsibilities. We are also proud of our role in helping them to be better at their jobs.

Suppliers contribute to this organization in many ways. In time and talents, we attend monthly meetings, offer our insights on matters of discussion, help to provide educational speakers on topics of interest to the membership, and serve on various committees. Financially, we pay our dues and our expenses at the monthly meetings. We contributed over \$14,000.00 last year to sponsor the hospitality room at the national superintendents convention in Orlando, an after dinner open bar at the fall dance, and lunches and hors d'oeuvres at most of the summer golf meetings. We also support other related associations that directly interact with the MAGCS, like the Illinois Turfgrass Foundation and Chicago District Golf Association.

The Midwest Association of Golf Course Superintendents would not exist as it is today without the contributions of its suppliers. We are an integral and essential part of this organization. Thank you for giving us the opportunity to serve you.

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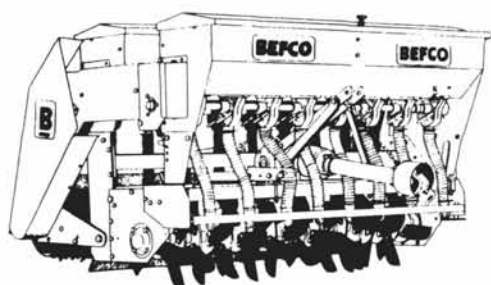
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