

35th

ANNIVERSARY

Industry grows through sense and science

TURFGRASS BENEFITS A CONSTANT OVER THE YEARS

- ▶ *Roadside turf areas provide a stabilized zone for emergency stopping for vehicles that lose control or are in trouble. —Beard 1973*
- ▶ *Working with plants has helped people hospitalized for severe depression, so this type of activity can be of use in combatting everyday blues. —McDonald 1976*
- ▶ *Grasses, as well as other ornamentals, reduce undesirable noise levels by 20-30 percent. —Robey 1977*
- ▶ *Grasses trap much of estimated 12 million tons of dust and dirt released annually into the atmosphere. —Daniel and Freeborg 1979*
- ▶ *Plants absorb gaseous pollutants [toxic emissions] from vehicles, such as carbon dioxide, into their leaves and assimilate them so they help clean the air. —Turgeon 1985*
- ▶ *On a block of eight average houses, front lawns have the cooling effect of about 70 tons of air conditioning. The average home-size central air unit has a three- to four-ton capacity. —Baker 1987*
- ▶ *High quality turf will buffer loss of nutrients in runoff water or in the leachate. —Roberts 1987*
- ▶ *Thick lawns are found to limit pesticide runoff. —Watschke et al 1988*

Improved plant and turfgrass varieties and a better understanding of the Green Industry's duty to society have led to industry growth.

by DR. ELIOT C. ROBERTS

There have been many major advances in the green industry since WEEDS, TREES & TURF magazine began publishing in 1962.

And what fantastic change it has been!

My start was at the University of Massachusetts in 1954. In the years that followed, I have seen six key breakthroughs that have been responsible, in a major way, for the advancement of the Green Industry we know today.

Maturation within the industry

Growing pains can often be uncomfortable. Some of these pains have involved moving on from individual trade secrets to the increasing availability of information of a technical, business and scientific nature to practitioners. Trade journals, such as LANDSCAPE MANAGEMENT and trade associations, like The Lawn Institute, and professional organizations such as the Golf Course Superintendents Association have extended commercial and university-generated scientific and business knowledge to the landscape industry across the board.

Among the most exciting achievements has been the sound concepts for safe use of pesticides on ornamental plants.

Continued stewardship

This must continue on into the next century, with emphasis on responsible use of all chemicals. Responsible Industry for a Sound Environment (RISE), along with The Lawn Institute, have through the years provided leadership for this type of public education. A misinformed public is easily intimidated by a wide range of environmental activists.

A second example might include the "Don't Bag It" program developed in Texas by Dr. Bill Knoop. This concept swept the country because of the sound nature of returning grass clippings to the soil, and the need for the Green Industry to be more concerned about dwindling space in sanitary landfills. This concern is a good indication of maturity.

Ornamental plant improvement

We lived in a different world immediately following World War II. Turfgrass improvement continues to this day as new cultivars join those released by Drs. Jess DeFrance and Dick Skogley of Rhode Island, Professor Bert Musser and Dr. Joe Duich of Pennsylvania State University, Dr. Reed Funk of Rutgers, Dr. Glen Burton of Georgia, and others.

Foliage plants, flowers and woody plant material have also been improved in ways that made possible their better use in the enhancement of the environment.

This advancement must continue into the 21st Century for the Green Industry to meet future challenges.

Soil biology

As a soil chemist by training, the biochemistry of soil systems has been of spe-

'Blades of Grass' was Eliot and Beverly Roberts' whimsical look at benefits of turfgrass, published by The Lawn Institute.



cial interest to me from the start. The root zone, although out of sight, is of basic or fundamental importance to the growth of all plants. The closer plants are crowded together in the landscape, the more this system is placed under stress. Interrelationships between macro- and microorganisms influence plant health and persistence. Soil organic matter as the raw material for humus formation has an important function in the rootzone. And the whole field of growth regulation as influenced by small amounts of bioactivators within the tissue is related to the mineral and organic nutrition of the plant. These advances have opened up prospects for improved ornamental plant cultural practices.

Plant ecology

We hear more and more about the importance of the relationship between plant and animal ecology and the environment. A clear understanding of the principles is required. In the latter instance, "it's the dose that makes the poison." In the former instance, it's the nature of competition between grasses and other herbaceous plants with trees, shrubs and weeds. Many politically correct concepts are based on bad science and false teaching. The underlying basis for ecology—that is, competition—is sound. Advances in the understanding of this have been and will continue to be essential in the further maturing of the Green Industry.

Stress physiology

We've all experienced the relative ease of production and culture of ornamental

plants under ideal conditions. But, more often than not, these give way to too much heat or too much cold, or too wet or too dry, or unreasonable use requirements in the landscape. Professor Lawrence Dickinson, who founded the first school for turf managers back in 1927, lectured on limits of tolerance. That is, limits before stress would cause the plant to be intolerant of existing conditions, and perhaps, even perish. Research has provided data on how much or how little the physiology of the plant can adjust to bring about continued vigorous growth. Dr. James Beard has become an authority and spokesman in this area.

These areas of specialization have provided what I feel were key building blocks needed for the green industry to grow during my 10 years with The Lawn Institute.

These in no way, however, have diminished the importance of product development, testing and competitive evaluation. New concepts in landscape maintenance tools and equipment, in irrigation design and water conservation, pest control and plant fertilization have been of great benefit to Green Industry practitioners during the past 35 years. It's difficult to picture the progress we've made to this point without the help of such pioneers as O.J. Noer, Fred Grau, Tom Mascaro, Jim Watson, Bob Moore and many more.

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1994:

World Cup soccer games played on real grass inside the Pontiac (MI) Silverdome.

1996:

TruGreen/ChemLawn buys Barefoot Grass.

97:

Jacobsen Green King Electric greens mower debuts. New bents from Tee-2-Green tolerant of lowest cuts.

Tom Mascaro (shown), inventor of turf aerator, dies at 81. Ciba, Sandoz form Novartis. B.J. Johnson, Univ. of Georgia, retires.

First fungicide to control all four major classes of fungi marketed by Zeneca as Heritage.

