

Advanced Technology Helps Sports Turf Managers Leave the 'Dark Ages'

by Dr. Kent Kurtz, executive secretary, Sports Turf Manager's Association

The primary challenge of the sports field manager today is to bolster his prestige and decision-making image, while continuing to gain agronomic knowledge. His hard-earned experience and the varied nature of his responsibilities warrant it. The initial target of these efforts should be management.

The tools are present.

In addition to such aids as the new generation of computerized sprinklers and hardier and more wear-resistant turfgrasses, today's sports turf manager can turn to the Sports Turf Managers Association (STMA). An infant organization, it could be the best bet turf field managers have in gaining the professional status they deserve.

GCSAA a model

Sports turf managers could learn much from the success of related organizations; one of the most successful is the Golf Course Superintendents Association of America (GCSAA).

The GCSAA, over a 60-year journey of education, testing, and image building, has elevated the *occupation* of greenskeeping into the *profession* of golf course superintendent. The GCSAA's continuing efforts are highlighted in an annual conference and strengthened by regional seminars and education programs.

The sports turf manager's path to professionalism needn't be as lengthy because of the model of the GCSAA.

The future

The era of the computer is here to stay. It is making inroads into the Green Industry. Computers speed inventory. They take much of the guesswork out of irrigation. Knowledgeable

Management Tools for Sports Turf Managers

- Computers
- New Turfgrass Cultivars
- Geotextiles
- Pre-germination
- Improved Turfgrass Equipment

sports turf managers are learning that computerized irrigation systems can apply water based upon soil moisture levels, climatic variations, or the needs of specific turfgrasses.

The potential of computers appears to be limitless. As more software is designed and developed, new groundskeeping uses will emerge.

Telecommunications offers sports turf managers exciting benefits. One phase of this new field is teleconferencing. It permits two or more groups to communicate via satellite using television or video screens. Imagine fixing a complicated piece of equipment while a manufacturer's engineer "walks" the repair through on a television screen.

Videotapes can be used to solve problems, provide information on maintenance practices and research, and stimulate the development of new concepts. Rarely used in sports turf manager's offices now, they will

become as commonplace as rakes in the near future.

New turfgrass cultivars

Plant breeders are beginning to unlock secrets in the hereditary complex of turfgrasses. New techniques promise that within a few years genetic engineering and tissue culture methods will allow plant scientists to develop sports turf grass that has even better wear tolerance, recuperative potential, color, tolerance to low mowing, and more rapid establishment qualities.

New warm season grasses which indicate potential for sports turf, appear to be selected zoysiagrass cultivars from the University of California, particularly 'El Toro' and possibly one or two others. Tifway II hybrid bermudagrass has the capabilities to perform better than Tifway. 'Excalibre', which is Seashore Paspalum, needs more time to prove itself as a sports turf. Californians are still waiting for a brilliant geneticist to develop a finer-textured cultivar of Kikuyugrass.

Cool season grasses adapted to athletic turf are limited to a few species which include the bluegrasses (Kentucky and roughstalk), the ryegrasses (perennial and annual), and the fescues (turf-type tall and creeping red).

Proprietary cultivars come and go. Experienced turf managers have learned to check with the agricultural universities in their areas, attend field days, and consult with turf farm advisors or representatives from reputable seed companies and sod nurseries.

New soil media

Work started in the late '60s and early '70s with sand media has dramatically influenced sportsfield construction. Sand in the medium particle range is needed because it does not compact, drains well, and provides a firm play-

Dr. Kent Kurtz is the executive secretary of the Sports Turf Manager's Association, 1458 N. Euclid, Ontario, CA.

ing surface. Field construction concepts and techniques developed around the sand concept include: PAT, Hy-Play, Sportsturf Fields (TD, INTERLINK, and MOD), and Cell-system. Some of these combine moisture sensing, soil heating, sub-surface irrigation, maximum drainage, field pumps, and insulated covers. Any of these systems, if properly implemented and maintained, performs well.

Geotextiles

New geotextile (ground cover) materials are available. They're finding increased favor with sports turf managers. They've proven successful in saving turf during periods of severe wear (concerts, marching bands, motor events), improving field drainage, and protecting turfgrasses from winter injury and desiccation. Even more imaginative uses of these materials are expected.

Accelerated propagation

An idea doesn't have to be new to be useful to today's grounds manager. The idea of pre-germination of grass seed has been around a while, but its popularity is just catching up with its usefulness. To promote the quick es-

tablishment of overseedings, pre-soak the seed for several days until germination, then combine the soaked seed with a carrier (sand, organic fertilizer, amendment). It's a simple technique. It can save days.

When polyethylene perforated with holes is placed over a prepared seedbed or pre-soaked seed, the polyethylene creates a greenhouse envi-

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ronment and accelerates the establishment of grass.

Turfgrass equipment

Most of the changes in turfgrass equipment in recent years consist of improvements in old designs. Equipment is larger, wider, more reliable

and versatile. Improvements in vertical mowing equipment, aerifiers, and larger, more versatile topdressing equipment are noticeable. New companies are expected to develop equipment specifically for athletic field use.

Chemicals and fertilizers

It is in the area of chemicals and fertilizers that the greatest thrust for new products is occurring.

Fertilizers that release nutrients uniformly and over several months are on the boards. Some of these new products will not be dependent on specific weather conditions to release their nutrients.

Growth regulators which reduce seedhead production, maintain superior color, and reduce mowing frequency are close to being perfected and introduced into the turfgrass market. New and improved herbicides, insecticides, and fungicides with broader spectrum systemic qualities are being evaluated and will be available within a short period of time.

With all the activity currently taking place in the sports turf field, and the movement under way to build a professional image and organization, the future of the sports turf manager is on the rise. **WT&T**

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