

weeds and sedges are eaten when preferred species are absent. Filamentous algae is reluctantly eaten.

If you are interested in planting vegetation at the water's edge for aesthetics and wildlife benefits, a challenge presents itself as grass carp mature and seek food. The proper number of fish must be maintained or you will lose the plants you added. It is best to understock to avoid too much weed control. Once fish are added, they are difficult to remove. Planting less-desirable vegetation will work for a while, but eventually non-preferred vegetation will be consumed.

Assurance of Sterility and Containment

Most states allow the use of grass carp, but they require special permits and guarantees

that the fish are triploid (sterile). Many states also require that the fish cannot escape the pond and enter into open water systems, potentially threatening the native flora and fauna, including beneficial game fish species. In Florida, a containment device or jail cage mechanism over the water body outlet is required when using grass carp. New Jersey, which recently legalized the use of grass carp, grants stocking permits only for water bodies that have "reasonable containment" characteristics. If your pond is upstream of or near any endangered or threatened species (plant or animal), permit approval is difficult.

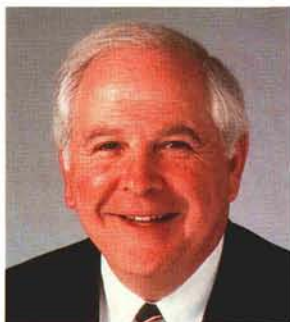
Summary

The sterile grass carp has its place and has been a beneficial method of weed control

on golf courses, but these fish should not be thought of as a magic cure-all for weed problems. They require proper management and analysis of site conditions for successful application.

When you choose to stock a pond or lake with grass carp, you are going to affect the ecology of the water body. Too many carp have a deleterious effect on pond vegetation. Too few grass carp have no effect. Other fish species and waterfowl can be impacted if the grass carp are allowed to significantly alter the balance. Numerous state fish and wildlife service policies allow the use of the grass carp for weed control on golf course ponds, but they advise against total eradication of vegetation. Experts say that finding the proper balance with grass carp is the key to successful results.

Spring News Notes



Thomas W. Chisholm



Raymond B. Anderson

Thomas W. Chisholm Named Green Section Chairman

USGA President Reg Murphy recently appointed Thomas W. Chisholm, a member of the USGA's Executive Committee since 1990, to the position of Chairman of the Green Section Committee. He replaces Raymond B. Anderson, who is stepping down from the Executive Committee after a four-year stint as Green Section chairman.

In his new position, Tom will provide direction to the Green Section's many activities, including its Turf Advisory Service, the Turfgrass and Environmental Research program, the Audubon Cooperative Sanctuary Program for Golf Courses, the *Green Section Record* magazine, and other Green Section publications and programs. He also will serve as chairman of the Green Section's Turfgrass and Environmental Research Committee and the Green Section Award Committee.

Tom Chisholm is no stranger to the Green Section, having served on the Green Section Committee for the past four years. During that time he also served on several other USGA committees and was chairman of the Museum and Library Committee and the Public Links Championship Committee. He is a member of the Bloomfield Hills Country Club in Bloomfield Hills, Michigan.

Sincere thanks and best wishes are extended to outgoing Green Section chairman Ray Anderson, whose tenure included a significant expansion of the Green Section's staff and activities. His support was crucial in obtaining Executive Committee approval of a variety of Green Section activities, including the Audubon Cooperative Sanctuary Program and the revision of the Green Section's green construction recommendations. He also oversaw the recently completed three-year, \$3.2-million Environmental Research Program, the results of which will be released in 1994. Fortunately, Ray has volunteered to remain on the Green Section Committee and will continue to work for the betterment of golf turf. Thanks, Ray!



Dr. Kimberly S. Erusha

Dr. Kimberly S. Erusha Named Director of Education

The USGA Green Section is pleased to announce the appointment of Dr. Kimberly S. Erusha to the new position of Director of Education. Dr. Erusha, who joined the Green Section in 1990 as Manager of Technical Communications, assumed the responsibilities of her new position as of the first of the year.

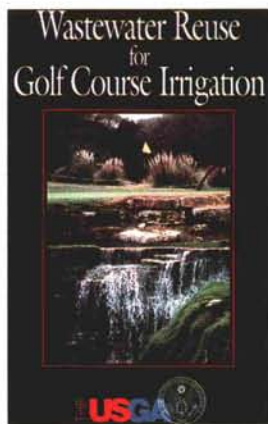
Among Kimberly's new duties will be the coordination and oversight of the Green Section's educational programs pertaining to the results of its turfgrass and environmental research programs and its other environmental activities. The effort will include the development of educational materials directed at golf course superintendents, regulatory officials, legislators, environmental organizations, and the public at large.

Kimberly will continue her current work as assistant editor of the *Green Section*

Record, and she will coordinate the production of other USGA publications, brochures, releases, and other educational materials. She also will have administrative responsibilities related to the Green Section's Turf Advisory Service, a consulting service offered to USGA member courses by the USGA's 16 regional agronomists.

Dr. Erusha received her B.S. degree in horticulture from Iowa State University, and she completed her M.S. and Ph.D. degrees at the University of Nebraska. Her work in graduate school included investigations of how turfgrasses respond to wear and drought stress.

Since joining the USGA, Kimberly increasingly has taken on more responsibilities for Green Section activities, and she has represented the Green Section at numerous meetings and conferences. Her broad knowledge of Green Section programs and research activities makes her well suited to her new position, ensuring an ever-increasing range of services from the Green Section for the benefit of golf.



New Book on Golf Course Irrigation Available

The USGA is pleased to announce the release of a new book titled *Wastewater Reuse for Golf Course Irrigation*. The 304-page book consists of the proceedings of the Golf Course Wastewater Symposium held in March 1993, sponsored by the USGA, American Society of Golf Course Architects, National Golf Foundation, Golf Course

Builders Association, and the Golf Course Superintendents Association of America.

Wastewater Reuse for Golf Course Irrigation, authored by leading researchers and practitioners, covers a wide range of technical and regulatory topics pertaining to the irrigation of golf courses with wastewater. Water quality, water conservation, regulations, water rights, water delivery, design of systems, monitoring concerns, retrofitting a course for recycled water, and successful case studies are just some of the important topics covered in this informative book. The book includes a comprehensive list of golf courses that currently are using effluent water for irrigation. Golf course superintendents, irrigation consultants, architects, and builders will find this book useful in understanding the many facets of using wastewater for golf course irrigation.

Wastewater Reuse for Golf Course Irrigation is available for \$62.25 (includes shipping and handling within the United States) from the USGA Order Department (1-800-336-4446) or Lewis Publishers, 2000 Corporate Blvd. NW, Boca Raton, FL 33431 (1-800-272-7737).

ALL THINGS CONSIDERED LET'S ALL BE RESPONSIBLE

by PAUL VERMEULEN
Agronomist, Western Region, USGA Green Section

MORE than ever, the daily decisions required of golf course superintendents are being thoroughly scrutinized by the general public. Also, golfers want to know which, if any, hazardous materials have been used that may affect their personal health. For the most part, the standard response to these concerns is to inform golfers that when used according to label instructions, the pesticides used for turfgrass management are safe, and that the results of unbiased scientific studies are available to support such a claim. Furthermore, pesticide applicators go through extensive training and are registered by the state to apply these materials.

Although sharing available information that validates the safety of properly used pesticides is important, I cannot help reminding myself that actions often speak louder than words. Having had the opportunity to visit with golfers across a large segment of the country, I can no longer blame all of the public's concern on the media and its ten-

dency to blow the facts out of proportion. Why? Because on more than one occasion I have witnessed events that make me question whether all of us (turfgrass professionals, and I include myself) are living by the same ethical rules.

Let me cite as a prime example the so-called innocent destruction of earthworms. Personally, I know exactly how disruptive earthworm castings are, and I appreciate the unyielding pressure a superintendent faces to get rid of them. But can a breach of the law and public trust be the right answer? For the sake of argument, let's say that it is. What happens when the public learns that their trust has been ignored to stop a few angry golfers from complaining?

In California the breach of public trust has resulted in the passage of new legislation, the removal of several pesticides from the market, and the denial of new pesticide registration. Now, instead of listening to a few complaints about earthworms, we listen

to complaints about daisies in the fairways, summer patch scars on greens, the proliferation of nutsedge, and other problems that can be controlled in other states. Have you heard of Banner, Image, Triumph, and Dimension? None of these new products is available for use in California.

And do you want to know what will happen if someone bootlegs them across the border? They can say good-bye to their state-issued pesticide applicator's license. No license, no employment!

Is it any wonder why so many people are asking the same questions about which pesticides are being used on golf courses? If there is, maybe it's because the actions of a few speak louder than the words spoken by the majority of responsible superintendents. For our own collective benefit, let's commit to being responsible professionals. Don't spray if the material is not registered for what you are trying to control. Sevin is not labeled for earthworms.