

A new way to control weeds in ponds, lakes

Some species of aquatic vegetation are beneficial to water features. Here's which, and why.

by Dave Murray, Limnion Corp.

• It took the participants of the conference 15 minutes to quit laughing...bentgrass was a weed and this guy is suggesting we deliberately plant it in our fairways and greens.

Thus, the entry of what was previously known as a nuisance weed made its unflattering debut into the everyday lives of most golf superintendents. Bentgrass, of course, is now the most accepted and respected grass for golf courses in the world.

Other species of vegetation also became widely used after the beneficial characteristics of the plant were demonstrated. The previous treatment of these species was widespread eradication when the proven, logical solution to them has been management and proper use.

Today, the golf and landscape industries continue to eradicate aquatic vegetation in water hazards, ponds and lakes. There are, however, numerous examples of aquatic weed species that are ideally suited to the golf course superintendent, landscape architect or landscape contractor.

The market for aquatic plants has been small and limited to the decorative backyard fish pond. The benefits of aquatic vegetation have seldom been examined because their dense growth patterns don't appear to be potentially valuable.

Aquatic vegetation now offers, however, a unique solution to one of the problems we all face: algal blooms that are typically dense and often consume the entire pond or lake.

For example, the bottom sediments of lakes and ponds are frequently contaminated with 10 or more years of copper sulfate treatments. Vegetation, even if desirable, might not survive the sediment contamination levels. However, certain aquatic vegetation types are capable of withdrawing the metal contaminates from the sediment. The absorption technique does not even allow the vegetation to become a hazardous waste itself.

Another type of aquatic vegetation is capable of getting adequate sunlight and nutrients through the algal growth. This species of vegetation, *Ceratophyllum demersum*, grows no roots and thus competes directly for nutrients the algae also needs. Introduce that vegetation and the algal blooms disappear.

Finally, the shallows of lakes have, in the past, required herbicide treatment or physical removal to stop the growth of aquatic vegetation. If the nuisance perimeter vegetation could be replaced with a low-growing plant, no herbicide treatments would be needed. *Eleocharis coloradoensis* does precisely that. It will grow only two inches tall and actually emit a chemical from its roots to drive off its larger and annoying cousins.

Proper planting of a lake or pond needs be done only once. The present budgets of lake managers, golf course superintendents and maintenance contractors can be re-examined. The finished product not only can have improved aesthetics but eliminate the liability exposure of water-borne herbicides that migrate.

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