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Environmental stewardship has become an ever increasing issue on golf courses, especially during the past decade. The increase in environmental awareness by greenkeepers, green committees and golf course architects has been fueled by environmental programs and by the opposition against golf courses by many non-golfers who wrongfully perceive golf as a socially elitist sport that consumes and destroys our countryside.

How to increase the ecological potential of golf courses

More and more golf clubs pay special attention to ecologically upgrading their golf courses and meeting the requirements for environmental accreditation schemes such as Committed to Green, the Audubon Cooperative Sanctuary Program or other countryside stewardship schemes. I commend every person who contributes to the preservation and improvement of natural resources and the environmental value of golf courses, as well as those who help in the education of others in that field.

Qualified golf course management contributes successfully to the establishment of effectively irrigated, healthy and properly maintained turf and ecological habitats on



Golf courses can be an attractive and environmentally sound solution for covering closed landfills and other ecologically damaged sites. They can be used as disposal and treatment sites for effluent wastewater. Golf courses provide sanctuaries for birds and other wildlife as well as habitats for endangered native plant species.

Environmental stewardship begins already during the planning stage of a golf course. While laying out the course, the architect should, wherever possible, provide for spacious and with each other linked natural rough areas that can serve as wildlife corridors. A minimum size of 1 hectare of continuous rough area is required to provide sufficient room for the evolution and preservation of a natural habitat. Flowering herb species and ornamental grasses that are mown annually can increase the visual attractiveness of natural out-of-play areas

while promoting the establishment of native flora and fauna.

Rough networks, including water bodies, can comprise up to 35 percent of the actual territory of a golf course. Areas of lower environmental value, such as frequently mown playing areas and paved areas, consume about the same amount of land. The remaining amount is transition land of relatively high ecological value.

Since the majority of golf courses is built on former agricultural fields, pastures, empty quarries, closed airfields, former army bases or other ecologically poor sites, it may become very clear why golf courses are an improvement to our environment, when designed and maintained responsibly.

The myth that chemical application on golf courses is extremely high can be



invalidated when compared to arable land. While arable land is treated entirely, the application of fertilizers, herbicides, fungicides and insecticides on golf courses is often limited to the playing surfaces, take place less frequently and the amount is based on individual need. Slow-release fertilizers reduce the amount of nutrient washout and protect the ground water from contamination.

Besides providing an attractive visual appearance and offering a stimulating challenge for individual holes, ponds can also serve as valuable water retention basins, provide nesting places for water birds and living space for many insects, reptiles and water animals. Small islands within the pond help to protect breeding birds and their eggs from predators. Make sure that those islands are placed far enough off shore and that they are anchored.

Water bodies that are not directly in play should be planted to create biological wetland habitats. A relatively shallow shoreline with a 1 : 3 to 1 : 5 slope, depending on the size of the pond, is required for providing living spaces for a healthy variety of water plants.

Even though they are rather expensive

investments, automatic irrigation systems are very beneficial in various ways, provided that they are properly designed, engineered, installed and operated to achieve maximum effect. Automatic irrigation systems do not only help to maintain desired turfgrass growth and uniformity; they also contribute largely to water conservation by allowing watering during evening hours and adjusting the amount of irrigation water in relation to existing weather conditions. Adequate water application rates and correct timing can reduce the amount of irrigation water significantly and limit fertilizer washout which, in return, reduces the amount of chemical applications.

I would like to encourage every greenkeeper, golfer and architect to consider the ecological potential of their golf course and how it can be improved. Steps for improvement do not always have to be costly – many can be incorporated in the daily work process or become part of a long-term improvement plan.

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