

Essayist Tackles Water Conservation

Editor's note: Margaret Anna Bolick won the Aquatrols & Golfdom Essay Contest and received a \$2,000 scholarship for her winning essay, "Water Conservation in Turf and Landscape." Jaron Andrews and Cathryn Arruda finished second and received \$1,000 scholarships. Bolick, who will attend Lander University in Greenwood, S.C., later this year, is the daughter of Marion P. Bolick, grounds superintendent at Lexington Medical Center in West Columbia, S.C. Below is an excerpt from Bolick's winning essay.

Through design, technology and education, we can ensure that our most precious natural resource will be available for generations to come through water conservation.

Design is an important factor in creating a water-efficient landscape, and xeriscaping designs reduce water requirements (Knox, 1). The term xeriscaping combines the Greek word "xeros" meaning dry and landscaping (Lang, 1). Xeriscaping includes several important elements, including planning and design; soil analysis; turf areas; plant selection; efficient irrigation; mulches; and appropriate maintenance (Duble, 1).

As with any landscape design, designers should become familiar with existing land and plant materials. Knowing the budget, water availability and maintenance requirements are also important factors. A vital element in xeriscaping is to group plants according to their water, soil and sunlight needs

("Landscape Cary Style"). In xeriscaping, plants with similar water requirements should be grouped together in zones (called hydrozones) so each group receives only the amount of water required to maintain the plant. (Knox, 2). An efficient irrigation system should be an integral part of any xeriscape.

It's also important to analyze soil before planting. Adding organic matter to soil also improves its structure; reduces runoff and flooding, improves fertility; attracts earthworms and other beneficial organisms; and reduces stress on plants caused by drought, heat and cold ("Landscape Cary Style").

Turf offers an important aesthetic value to the landscape design but should not be overused because of its increased water and maintenance requirements. An important aspect of xeriscaping is to use drought-tolerant varieties of turf where possible.

Proper spacing of sprinklers is critical in achieving uniform water application. Sprinklers spaced too far apart will waste water by applying too much water in some areas and not enough in others. Spacing sprinklers closer than required increases the cost of the system and wastes water (Bilderback, "Efficient Irrigation 2").

Mulch conserves water by providing a cover over the soil, reducing evaporation, soil temperature and erosion. It also limits weed growth and competition for water and nutrients (Smith, "Landscape Water Conservation 2") while adding



Desert courses are removing turf areas to deal with water restrictions.

nutrients to the soil as they decompose.

Next, water conservationists have learned how to achieve their aims in the green industry with the help of technology. Chemical surfactants lower water-use rates by improving root zones, preventing localized dry spots, avoiding moisture stress and enhancing performance of chemicals. (Usage Guides: Turf Products 1). Advancements in irrigation clocks have enabled wider control and flexibility in programming the irrigation system. Computerized irrigation systems, used mainly on larger landscapes and golf courses, offer maximum control.

Communities throughout the country are faced with increased demands on existing water supplies. Consequently, there is a greater focus on water conservation. It is left to each one of us not to take this most precious natural resource for granted any longer but to conserve it to ensure a bountiful supply for years to come. ■

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