

energy landscaping, the extra heating expense is more than offset by the much lower cost of utilities required for cooling. The savings in the purchase of the smaller air conditioner necessary for the low energy landscaping will compensate for some of the expenses required for providing the low energy landscaping features.

Summary

The economic feasibilities of various landscaping alternatives must be shown before a homeowner, contractor, financial lender, engineer, architect, horticulturist, realtor, etc. can most effectively utilize data on the energy savings of various landscapes. The results presented in this paper show the economic feasibilities of the landscaping features of building orientation, wall and roof shading, and exterior wall and roof colors.

The most effective way to educate people of the need to conserve energy is to convince them how they can save money by saving energy. Therefore, the economic feasibility of any energy conserving alternative should always be considered before presenting materials and recommendations to the consuming public.

Planned future research activities will focus on incorporating the purchase price and annual maintenance costs (fertilizer, water, pesticides, etc.) of shading materials into the analysis of the economic feasibilities. Economic analyses will then be presented in the form of effective interest rates earned on the capital investment required to provide each of the landscaping features for various climatic zones within the State of Florida.

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Proc. Fla. State Hort. Soc. 92:220-221. 1979.

VERSATILITY OF THE MODERN DAYLILY

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Abstract. The modern daylily, which in more temperate climates is a major perennial, is adaptable for multiple uses in warmer areas. Many evergreen and extra-evergreen cultivars are handsome enough to market as standard pot plants and are, in fact, more likely to succeed having been grown in pots. Some of the more compact growers will succeed as container plants for extended periods and will give repeated bloom. Daylilies offer real potential as cut flowers with their vibrant colors, varied shapes and sizes. Yet, they continue to find their highest beauty in ground plantings, offering a vivid, long-season display of color and increasing in beauty from one year to another.

In temperate areas of the United States the daylily is one of the most dependable of many colorful perennials. Combined with other perennials such as delphinium, iris, peony, campanula, etc. in a classic herbaceous border, featured in massed beds of daylilies, used as clump plantings with rocks or shrubs, or used as ground cover, it is a highly adaptable and useful plant. The herbaceous border is little used in the lower tip of Florida where lush tropical foliage plantings supersede it. Although most of the plants used in the northern border will fail in this climate, some will adapt. Louisiana iris, for example, in my border combine their blues in a delightful contrast to warm pinks and

yellows of daylilies. Pentas give pleasing contrast in color and texture. Shrubs such as *Plumbago capensis* and *Brunfelsia americana* provide both pleasing flowers and background. The variations in size and colors of daylilies, themselves, provide texture and color interest.

Major hybridizers and a host of hobby hybridizers contribute to the beautiful and bewildering bounty of modern daylilies. They vary in size from one and a half inches in diameter to seven or eight inches; likewise the height varies from about ten inches to three or four feet. Colors range through every variation of cream, yellow, gold, orange, pink, rose, red, "melon" and purples; moreover, there are flowers with contrasting eyezone areas, markings not unlike those of brocades, deeper colored edges and rainbow blends of colors within one flower. Shapes may be round and flat, or lily-like and recurved, or triangular, and there may be all sorts of frills and ruffles and even completely double flowers. Textures may be satiny, velvety or puckered, and there is sometimes a shimmering glint of "gold" or "diamond" dust on the surface of the flower. Many are fragrant with scents reminiscent of lilies, narcissus, and tea roses.

A scape, or flower stem, may have from several to fifty or more buds and the graceful, arching foliage may vary in length of leaf, width and stiffness. The basic cultural divisions, evergreen, semi-evergreen and those which are dormant in winter govern general areas where specific cultivars may be grown. This very basic differentiation is not well understood. In general, only strongly evergreen daylilies will succeed in the southern tip of Florida (2). Since

the advent of tetraploid daylilies, with double number of chromosomes, the progress in breeding has accelerated.

In near-tropical areas such as the southern tip of Florida, the breeding of extra-evergreen, or tropical daylilies has added the possibility of long-term, in-the-ground beauty to area gardeners, although few examples are to be found. Only very old cultivars and a popular, small flowered daylily rather like a wild flower, are available in nurseries. Although there exist dozens of beautiful named daylilies which are known to perform well here, few know how to get them, and many are unaware of their existence. Although there have been a number of articles in both popular and professional publications, research facilities and the plant industry have shown little interest in daylilies.

The daylily is adaptable to pot culture, can be brought to bloom and sold in pots. The dwarf habit, very attractive flowers and arching foliage of many of the smaller daylilies make a very appealing pot plant. Wrapped with foil and adorned with a bow, such plants compare favorably in beauty with most other pot plants, and after serving time as pot plants they can go in the ground and will probably produce another flush of bloom in the season. Daylilies have been sold bare-root for years. The chance to choose them in bloom, buy them in active growth in soil and plant them in the ground without planting shock make them a real bonus for the gardener.

In my growing I use six and a half inch white azalea pots and a sterile planting mix of silica sand, perlite, peat moss, and pine bark mulch. The white pots keep the root zone noticeably cooler than dark pots, and the very light mix provides both good drainage and aeration. Osmocote has proved to be the most efficient fertilizer for pot culture, though I use a citrus fertilizer for plants in the ground. Treflan sprinkled over newly potted plants and at intervals

thereafter inhibits weed growth. A multiple purpose spray mix prevents most fungus and insect problems (1) except grasshoppers; these, when newly hatched may be dispatched with a can of house and garden spray, but when mature are more satisfactorily annihilated singly. The two most important points in care of potted daylilies are adequate but not over-watering and some shade. Small "Areca" palms set among the daylily plants provide light shade in my garden.

The fact that each daylily bloom lasts just one day has tended to preclude their use as cut flowers. However, they are prized for Oriental type arrangements. In mixed bouquets for table, church, or cemetery use they are stunning. Colors can be singularly vibrant. Since some are evening openers, they can be used for dinner table arrangements. They have even been used for wedding bouquets and corsages.

If grown without systemic insecticides they may be used for food. Buds dipped in batter and deep fried have long been considered a delicacy in the Far East. The roots are considered there to have medicinal value.

Daylilies continue to find their highest beauty planted in the ground. They offer a long-season display of color and lush beauty which improves from year to year. The entire plant is handsome as a landscape accent or mass. Moreover, as the daylily has gained in tolerance of tropical weather, it has not lost its hardiness to cold. It should be recognized for its multiple potentials for gardeners of both climates.

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Proc. Fla. State Hort. Soc. 92:221-223. 1979.

USING ECOLOGICAL COMMUNITIES IN ENVIRONMENTAL EDUCATION WORK

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Additional index words. conservation plan, The Nature Conservancy.

Abstract. The USDA, Soil Conservation Service, helped prepare a detailed conservation plan for environmental education in 320 acres (130 hectares) in Florida for The Nature Conservancy (TNC). The ecological community was the basis for inventorying soil, plant, and animal resources; determining the kinds and possible locations of endangered and threatened plants and animals; making soil interpretations; and developing projects and practices for environmental education. This approach established clear alternatives and assisted TNC in developing an effective plan.

Introduction

In the summer of 1977, The Nature Conservancy (TNC) requested assistance from the Soil Conservation Service (SCS) and appropriate soil and water conservation districts

Proc. Fla. State Hort. Soc. 92: 1979.

(SWCD's) in preparing stewardship plans for TNC properties in Florida.

TNC is a national, nonprofit conservation organization that has worked to preserve hundreds of thousands of acres. TNC accomplishes this work through accepting gifts of land, purchasing land, and acquiring land for conservation agencies. Acquisition monies are provided through the organization's own contributed revolving funds, donations, lines of bank credit, and loans from financial institutions.

About 60 percent of all TNC projects remain in TNC ownership, and most are managed by volunteers. The other areas are transferred to government agencies, universities, or other conservation organizations for protection. The lands held by TNC are open to the public for scientific, educational, and passive recreation use. The types of use allowed are determined after a master plan for each area is completed.

TNC develops stewardship plans on lands they own and manage. These plans include a description of the preserve; an inventory of the natural resources; objectives for preservation; and methods for implementation of the plans. They are similar to conservation plans prepared by SCS. The conservation plan was used as the basis for the stewardship plan.

Stewardship plans for TNC properties in Florida will