

## Park Plants Wildflowers

continued from page 31

weed seed is brought to the surface and can germinate. Wildflowers require good seed-soil contact, but at a maximum depth of 1/4 inch.

Additional plots to be installed by the department will be prepared with a flail mower with verticutting blades. This will open the soil surface, but will disturb as little of the earth as possible.

**Species and Variety Selections**—Whenever a local native plant can be identified and used to add color and texture to a particular site, its potential for success is higher than that of an introduced plant.

**Seeding**—Many of the seed companies stressed the need to plant cover grasses

with the wildflowers. Yet no grasses were seeded in any of the original 13 plots. In some situations, the bureau's tests indicate that this may not be necessary. However, steep slopes and drainage swales in new construction would be candidates for this technique. It is important to note that normal recommendations for these grasses appear to be excessive in comparison to the amount of wildflower seed: In many instances, even non-aggressive grasses seeded at such high rates will compete heavily with the wildflowers.

**Mulch**—A light application of clean straw mulch seems to be the most effective method of completing the planting, especially for new construction. This technique provides both shade and moisture reten-

tion. It is feared that the seed will tend to bind to fiber mulch materials, or be completely buried and smothered if normal rates are used.

Many technical questions about wildflowers remain unanswered. Although the department is now somewhat confident about site preparation, seeding rates, and maintenance requirements, more testing is required in such areas as pH and organic soil content.

For instance, preliminary soil analyses indicate that there is an inverse correlation between organic content and the general success of the plots: Apparently, lower organic content produces better results.

The tests have produced some highly positive results. The department believes that the wildflowers and other native plantings can be used successfully as an alternative to turf. This principle has already been applied to several large park-development projects, and will be continued as an integral part of park landscapes in Howard County.

The department now has several "second-generation" test sites in the planning stages. These will combine the most successful varieties with the best planting techniques.

Several years ago, 40 percent of the existing park turf was identified as passive-use area. Although the department has found that not all of this acreage is appropriate for wildflowers or other naturalized plantings, it still hopes to include many portions of these areas in the program.

If the use of wildflowers reduced 30 routine mowings to one off-season winter mowing, at only the width of one pass of the equipment, the savings could be dramatic. Fully equal to that benefit is the improvement in the visual quality and wildlife habitat of these areas.

This simple program can greatly expand the ability of the Department of Recreation and Parks to meet the public's need for a great deal more than active sports programs and other high-use turf facilities. The fact that the department can provide wildflower, butterfly, and bird walks in these areas is as much a benefit to the public as is containment of maintenance costs.

Make no mistake, however—our cost containment has been considerable. Figuring in the expense of mowing, fertilizing, applying herbicides, and aerating for a typical acre of maintained turf, 1987 costs total \$690 per acre. For wildflowers, one mowing a year and herbicide spot treatment amounts to only \$31 per acre. The savings of \$659 per acre can be used to enhance the maintenance efforts in high-use areas such as athletic fields and sports turf. □

*Editor's Note: This article was adapted from a Howard County Department of Recreation and Parks report. For further information on the department's ongoing wildflower program, contact Jeffrey A. Bourne, Chief, Bureau of Parks, or Mark D. Raab, Supervisor, Grounds Division, Department of Recreation and Parks, 10,000 Route 108, Ellicott City, MD 21043.*

## Tips for Success

By Crystal Rose-Fricke

**W**ildflowers can be used to enhance the deep rough of golf courses and to add color to parks and other public facilities. They are also useful for soil erosion control, adding color to roadsides, to cover difficult to mow areas and for landscaping around structures.

When purchasing wildflowers, it is important to be aware of aggressive species which may take over your mixture and spread to unwanted areas. These species do well in difficult areas as they are quite vigorous, but in a mixture they could take over if used at a high percentage. Therefore Chicory, White Yarrow, Ox-eye daisy, Butter-n-Eggs, and Snow-in-Summer are some examples of species which should be used in small proportions in a wildflower mixture.

There are several different management schemes to choose from when growing wildflowers. A mixture of all annual species can be planted and reseeded yearly to insure a broad range of colors and textures. After flowering is completed they can be mowed and Roundup can be used to control weeds before reseeding each spring.

Annuals and perennials can be used together, achieving color with the annuals flowering the first summer after a spring planting. Cold winter temperatures vernalize the perennials so they initiate flowers the following spring, a year after planting. Herbicides can be used prior to the initial planting. After the annual species die out the bare areas will be open to weed invasion, so they should be reseeded with more annuals each spring until the perennials take over.

When using annuals in mixes it is advantageous to use those which reseed themselves each year. A few examples are Bird's-Eyes, Farewell-to-Spring, Tidy Tips, Mountain Phlox, and Bachelor Buttons. Also, if you must plant in the fall, there are annuals which can survive during moderate winters,

like those in Oregon. These would include Corn Poppy, Garland Chrysanthemums, Plains Coreopsis, Catchfly and others.

A third possibility would be to seed an all perennial mix in the spring or fall. If planted in the spring, only a few flowers will be evident until the winter temperatures vernalize the plants. At this time, herbicides can only be used before planting, followed by hand weeding for the life of the stand.

Nonaggressive bunch grasses, such as sheeps fescue, can also be used in mixtures for soil stabilization to fill in areas where annuals die out. In our tests, 15 percent sheeps fescue proved to be a good mixture with plenty of flowers plus enough grass to fill in bare areas.

Seeding rate tests with our Bloomers Mix, a mixture of both annual and perennial wildflowers, revealed that 10 to 15 pounds per acre gave better coverage than five or 20 pound rates. Higher rates provided better competition against weeds and more color the summer after seeding as well as the following summer. Twenty pounds per acre was too high with the annual wildflowers crowding out the perennials so that the following summer more weeds encroached where the annuals died out.

A National Wildflower trial of 25 annual and 25 perennial wildflowers was initiated this spring to study the performance of some of the better producing wildflowers in many locations across the U.S. Seed was sent for trials in 50 locations to be planted this past spring or this fall. Data from the trials will be summarized and used to make recommendations for the use of wildflowers in various areas.

*Editor's Note: Crystal Rose-Fricke is a plant breeder for Pure-Seed Testing and Turf Seed Inc., of Hubbard, OR. She is a nationally-recognized specialist in wildflower selection.*