



Gardeners Information Service

CARING FOR BOXWOOD

I am currently landscaping a new house and plan to incorporate boxwood (*Buxus sempervirens* 'Suffruticosa') in the design. I would like information on planting, feeding, and light requirements, as well as suggestions for companion plants, including those that repel insect pests and resist diseases.

—M S., ROCKY MOUNT, NORTH CAROLINA

Buxus sempervirens 'Suffruticosa', commonly known as English boxwood, is a cultivar with dense, compact foliage that makes it ideal for use as edging and in borders and parterres. It grows slowly to about three feet in height and spread. Boxwoods, hardy in USDA Zones 6 to 8 and heat tolerant in AHS Zones 9 to 6, luxuriate in climates that do not have extremes of summer heat or winter cold. Everywhere, they grow best in loose, loamy soil with a pH of 6.5 or higher in a sunny situation, though they will tolerate part shade.

Other than a light topdressing with compost in spring, there is no need to fertilize unless the plant displays symptoms of nutrient deficiency. We are not aware of any companion plants that might repel boxwood pests, but boxwoods are not susceptible to many serious problems and are even somewhat deer resistant.

The choice of companion plants depends upon the setting and your overall design. Combining fine-textured boxwoods with bold-textured plants such as hollies (*Ilex* spp.), hydrangeas, or viburnums adds appealing contrast in texture and size. White-flowering plants separate masses of boxwood with special grace.

FERTILIZERS 101

I'm overwhelmed by the variety of fertilizers on the market and confused about which to use. How do slow-release fertilizers differ from others? And where do organics like fish emulsion, ashes, and dehydrated manure fit in? I would like to fertilize (non-acid-loving) shrubs, herbaceous perennials, and bulbs and I'm wondering if I can use the same product for all three.

—E M., SPOKANE, WASHINGTON

All fertilizers—a term that usually refers to

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products that have been synthetically formulated—contain the macronutrients nitrogen, phosphorus, and potassium and, possibly, some of the 13 micronutrients such as magnesium, calcium, and iron that plants require.

A *complete* fertilizer always contains the big three: nitrogen, phosphorus, and potassium and always lists a ratio of their percentages in the same order. Thus a label listing 5-10-5 indicates that the container holds five percent nitrogen, 10 percent phosphorus, and five percent potassium by weight. Since nitrogen leaches out of the soil quickly if not taken up by plants, the requirement for nitrogen is often the highest. Most soils, especially clay, contain enough of the micronutrients to make adding them unnecessary. While some fertilizers are especially formulated for specific plants—such as those that prefer an acidic soil—complete fertilizers generally work for most plants.

Synthetic fertilizers are generally inexpensive, easy to use, and effective, but they are often overused, contributing to environmental pollution through runoff. When they are labeled *slow release*, their compounds are bound up into a water-permeable coating that releases the nutrients over time as the coating degrades.

Organic fertilizers are waste products of living organisms, or the decomposition of their remains—such as fish emulsion, ashes, and manure. While most organic products provide some of the 16 essential elements, these are usually present in relatively small amounts, making them comparatively more expensive than synthetics.

Organics have other advantages: They are inherently slow release, don't pollute, and usually improve the soil structure—something that yields long-term benefits in the garden. Much new research into plant pests and diseases points to a rich, healthy soil, alive

with microorganisms, as the best support for all types of plants.

NO BEES, PLEASE

I need help selecting garden plants that DO NOT attract bees. Do you have suggestions?

—J.C., HARRISBURG, PENNSYLVANIA

Some of the most beautiful garden plants—ferns and ornamental grasses—do not attract bees. Tassel fern (*Polystichum polyblepharum*), autumn fern (*Dryopteris erythrosora*), and Christmas fern (*Polystichum acrostichoides*) are semi- to fully evergreen and serve as tall (to two feet high) ground cover in part to full shade. 'Morning Light' miscanthus is a variegated, four-foot-tall ornamental grass that, like other grasses, is wind pollinated.

Among flowering plants, a flower's characteristics offer clues to its pollinator. Bees are especially drawn to laterally symmetrical, yellow, blue, or purple, day-blooming flowers that may be marked with nectar guides—the kind of striped patterns seen on iris falls. These lead bees to the nectar inside the flower. Among the plants pollinated by bees are eastern dogwood (*Cornus florida*), garden phlox (*Phlox paniculata*), and goldenrods (*Solidago* spp.).

Night-blooming plants, such as the extremely fragrant, pale to white-flowered yuccas and daturas, are pollinated by moths instead of bees.

Plants with medium-sized, red or yellow tubular flowers with little scent but plenty of nectar, such as columbine (*Aquilegia formosa*) and trumpet vines (*Campsis* spp.), are typically pollinated by hummingbirds.

It is estimated that about one-third of all herbaceous plants are pollinated by ants. Frequently, the flowers they pollinate grow close to the ground. Examples of ant-pollinated plants include wild gingers (*Asarum* spp.), the spring-blooming, trout lilies (*Erythronium* spp.), and summer-flowering purslanes (*Portulaca* spp.).

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