After a long, dreary winter, and during the even worse "mud" season, hardy spring bulbs can be used to provide bright and cheery color in the landscape. They are usually the earliest plants to bloom, and most of them have exceptionally showy flowers. Mid September through October is the best time to buy and plant these bulbs. Snowdrops and winter aconite are the first to show up in the spring, usually in March. These are soon followed by crocus, squill (Scilla), and glories-of-the-snow (Chionodoxa). Then come the hyacinths, daffodils, and tulips. Last are the tall Indian hyacinth (Camassia), onions (Allium), fritillary, and summer snowdrops (Leucojum).

Bulb size, often reflected in the price, is a good indicator of future spring number and size of blooms. For tulips you may want top sized bulbs. For daffodils you are just scattering about, to increase in size of clumps over future years, smaller and less expensive bulbs may be all that is needed.

Bulbs are attractive when placed along paths and walks, planted around pools, or placed in front of foundation plantings around the home. Except for tulips and hyacinths, most spring bulbs may also be effectively naturalized (scattered randomly throughout the landscape). Use the same design principles as you would with other flowers, such as pastel or cool colors (blues, violets) for a soothing effect, warm colors (red, yellow, orange) for a dramatic effect. Contrasting opposite colors such as orange and blue or red and yellow also demands attention.

Most bulbs do well the first year, regardless of where they are planted, but very few do well for several years unless they have a fair amount of light and generally favorable growing conditions. Even then, unless noted as “perennial”, most tulips are only best the first year, replanting new ones annually. Planting bulbs beneath large trees is seldom satisfactory because of the dense shade cast by the trees and the competition with tree roots, but scilla, crocus, daffodils, winter aconite, and snowdrops often will perform well under trees.

**Soil preparation:** Hardy spring bulbs need soil with good drainage where there is no danger of water standing on the surface of the ground through winter or spring. Checkered lily (Fritillaria meleagris) will tolerate wet soils. To keep the bulbs in vigorous condition and performing well for several years, prepare the soil well before planting. Organic matter can be added to "heavy" clay soils to improve their physical structure. Manure must be well rotted, because fresh manure may injure the bulbs. Apply organic matter (compost, peat moss also work well) at the rate of 5 bushels per 100 square feet, and work into the top 8 inches of soil.

If planting individual bulbs in holes, add about ¼ to ½ teaspoon of fertilizer prior to placing the bulb in the hole, covering with some soil so the fertilizer does not burn the bulb base. If planting in a bed or row, sprinkle fertilizer lightly across the bottom of bed or trench, with about one teaspoon per square foot. Phosphorus (middle number on fertilizer analysis) is needed for good rooting, so use a fertilizer solely of this (superphosphate or rock phosphate for instance) or high in phosphorus (bulb food products). Bone meal should be avoided as it attract skunks and rodents which will dig up bulbs looking for the “buried bones”.

**Planting:** In light, sandy soils, bulbs may be planted by the dibble method: Make a small hole in the soil with a short, pointed stick; place the bulb in the soil; and after pressing the bulb down into the soil as far as possible, cover it with soil. In soils that are rather heavy, it is much better to use a trowel or bulb planter (tube with handle) to dig the hole for each bulb. Prepare rather loose soil underneath the bulb so that roots can easily penetrate the soil.

Plant tulips and daffodils with the tops of the bulbs 4 inches below the surface of the soil. In light, sandy soils, plant tulips deeper than in heavy soils. Plant smaller bulbs such as squill (Scilla), glory-of-the-snow (Chionodoxa), grape hyacinths, and snowdrops, with their tops about 2 inches below the surface of the soil.
Plant larger bulbs such as tulips about 8 inches apart; crocus and grape hyacinths about 4 inches apart; and smaller bulbs, such as winter aconite and scilla, 2 to 3 inches apart. Daffodils may be planted a foot or more apart, as they will make increasingly large clumps over several years. For a naturalized planting, daffodils may be placed at irregular distances apart, and small bulbs randomly with about 20 to the square foot.

**Problems:** Bulbs generally get few problems. If bulbs are not growing, but rotting, the soil may be too wet. If rodents or mammals (deer, chipmunks, skunks) are a problem, it may be necessary to cover the beds with fine mesh wire to prevent them from digging out the bulbs. A whole bed of bulbs may be dug out, and lined with poultry wire or similar, to prevent digging. A small handful of sharp, finely crushed shells or rocks (available at complete garden supply stores) can be placed in holes, around the bulb, at the time it is planted to discourage digging. Daffodils are quite resistant to digging and eating.

If daffodils disappear in future years, or look “grassy” with few or no blooms, you may have the narcissus bulb fly. This fly, resembling a bumblebee that hovers and moves faster, lays eggs at the base of bulb leaves in early summer. The larvae tunnel into and eat the bulb, making it rot. Windy sites, planting bulbs among other perennials or lawns to confuse these flies, and destroying affected bulbs, all help prevent spread of this problem.

During extended wet weather in the spring, the fungus "Botrytis" (tulip fire) may cause leaf tips of tulips to decay. Cut off and burn all decayed leaf tips as soon as you notice them. Infected buds and foliage showing grayish tan spots should also be eliminated. Removing infected foliage is the most important way to control this disease, although certain fungicides can also be used to help control it.

**Spring care:** Certain practices in the spring after bloom will affect the growth and development of bulbs for the next few years. Remove any seed pods. (When they are left on, new bulbs of tulips and daffodils are much smaller than when the pods are removed.) Removing the leaves has just the opposite effect, however. After bloom, leaves are needed to produce the food that will go into making the bulb and bloom for the following year. A handful of fertilizer sprinkled around the bulbs after the bloom or watered on will help this process. Let the leaves remain on the spring-flowering bulbs until they show signs of ripening and turning yellow. In the north, this time is usually mid-June for tulips and mid-July for daffodils. Other types of bulbs vary greatly in the date at which they are mature. This ripening process may be hastened by folding over the leaves and putting rubber bands around them.

Clumps of hardy bulbs may only need digging and dividing if they have few or no flowers, or smaller flowers, possibly after 3 years. Allow bulbs to mature as long as possible before digging and dividing. Digging too soon after bloom will keep the bulbs from flowering the following year, although they will flower in the second year. Very small bulbs, especially bulblets separated form large bulbs, may not flower simply because they need a few years to mature. On the other hand, don't wait until the foliage disappears or you won't be able to find the bulbs!

When the foliage turns yellow (usually late June to mid-July), lift the bulbs carefully, free them from soil, remove the tops, pull them apart, and replant immediately. If not replanted at once, they may be washed, spread in an airy and shady place to dry, and then stored in shallow boxes in a cool, dry, airy place until planting time the following fall.