What's Growing On in the garden?

Germantown Hills School Garden Newsletter November 1, 2007

Planting bulbs

On Wednesday, Oct. 17 the fifth graders planted spring bulbs in our garden. Almost 350 bulbs were planted! The students all measured their bulbs and carefully calculated the depth necessary for planting each bulb. These bulbs will lie dormant in the garden until spring, when they will burst into life. Among the bulbs planted this year were pink daffodils, several kinds of allium, bluebells, anemones and glory of the snow bulbs. Last fall we planted grape hyacinth, crocus, tulips and yellow daffodils. The earliest bulbs (Glory of the Snow) should begin to push through the soil as soon as winter releases its icy grip. By early March the garden should begin to fill with color. The spring bulb show should last well into late April when the perennials will begin their seasonal color displays. We hope to keep the garden alive and blooming from late February until the end of November.

Bulb Garden - 2007

We have a “river” of grape hyacinths in two of our gardens. The largest river is in the Bulb Garden. A smaller river is located in the Blue and White Garden. If you go out to the garden right now, you will see the foliage for these bulbs. This particular bulb will make green leaves in the late summer. These leaves provide nourishment for the bulbs. The foliage will die out over the winter. When the garden warms up in the spring, the bulbs will “spring” to life and these bulbs will send up both leaves and flowers. The flower resemble clusters of grapes. Grape hyacinths come in both blue and white.

Planted all along the edges of the grape hyacinths, we have an assortment of tulips and daffodils. Most tulips are unreliable performers after their first bloom. Our tulips are the perennial variety and should bloom for us for quite a few years. Daffodils are excellent perennial bulbs and will last for many, many years. Each year our daffodils will get larger and fuller. In contrast, the tulips will get smaller and smaller.

With the addition of our newest bulbs, our spring garden should be beautiful for many weeks.

The care and planting of

spring bulbs

The term "bulb" is used by most people to refer to plants that have underground, fleshy storage structures. Only some of the plants commonly called bulbs actually are bulbs. The definition of a bulb is any plant that stores its complete life cycle in an underground storage structure.

The primary function of these underground storage structures is to store nutrient reserves to ensure the plants' survival.

Bulbs or bulb-like plants are usually perennials. They have a period of growth and flowering. This is followed by a period of dormancy where they die back to ground level at the end of each growing season. For spring bulbs, the end of the growing season is in late spring or early summer. Spring bulbs start to grow again in the fall and flower the following growing season.

Bulbs can be broken down into five types of storage structures. These include: true bulbs, corms, tubers, tuberous roots and rhizomes. A sixth category of fleshy roots has been added here for the purpose of showing the structure. Daylilies and peonies, which are popular plants with gardeners, are examples of this type.

True Bulbs

The true bulb has five major parts. It contains the basal plate (bottom of bulb from which roots grow), fleshy scales (primary storage tissue), tunic (skin-like covering that protects the fleshy scales), the shoot (consisting of developing flower and leaf buds), and lateral buds (develop into bulblets or offsets).

True bulbs are divided into tunicate bulbs and imbricate bulbs. A tunicate bulb has a paper-like covering or tunic that protects the scales from drying and from mechanical injury.

Good examples of tunicate bulbs include: tulips, daffodils, hyacinths, grape hyacinths (muscari), and alliums.

Many plants such as daffodils form new bulbs around the original bulb. These bulbs, called offsets, develop from buds within the base of the mother bulb and produce new plants. When these bulbs become overcrowded, the flowers start to diminish in size. This is an indication that it is time to dig up and divide the bulbs.

An example of the imbricate bulb is the lily. The imbricate bulb does not have the tunic (papery covering) to protect the fleshy scales.

Imbricate bulbs must be kept constantly moist before planting so they are not injured by the scales drying out.

Lilies can be propagated from bulbils that develop in the leaf axils of the plant. They can also be propagated from bulblets that develop at the base of fleshy lily scales if maintained in a moist sand medium. It will take more than one year for the bulbils or bulblets to become flower size.

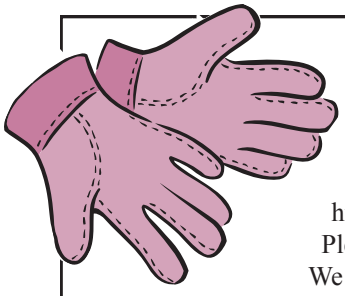
Corms

A corm is a swollen stem base that is modified into a mass of storage tissue. A corm does not have visible storage rings when cut in half. This distinguishes it from a true bulb.

The corm contains a basal plate (bottom of bulb from which roots develop), thin tunic and a growing point. Examples of plants that develop from corms include gladiolus, crocus, and autumn crocus.

When gladiolus corms are dug in the fall, they should be separated into well developed corms, to be stored for replanting, and poorly developed corms that the gardener may want to discard. The newly dug corms will have cormels that are pea size formed around the top of the old corm. The remains of the old corm will be directly beneath the newly formed corms. When the corm is cleaned up and the old stem removed, the growing point of the corm will be evident. The cormels can be saved and replanted in the back of the garden until they reach flowering size.

Source: Bulbs and Other Rooting Structures by Ron Cornwell, University of Illinois Extension Educator, and Floyd Giles, University of Illinois Extension Specialist.



Websites and Resources

http://www.urbanext.uiuc.edu/bulbs/.....all about bulbs
http://www.urbanext.uiuc.edu/kids/index.html.....Kids gardening
http://www.urbanext.uiuc.edu/gpe/case5/c5m1.html.....Science projects for grades 4 and 5
http://www.kidsgardening.com.....Garden projects, crafts and classroom information

Please feel free to contact either Cathy or Linda with your garden questions and comments. We encourage you to use the garden as the valuable educational resource that it can be.

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