



### Planting

#### What is a Plant?

A plant is anything that grows from the ground. A plant can be a flower, a bush, a vine, a tree, a weed, a vegetable or grass. Plants, like our own bodies, have many parts that have special uses. Each part does its bit in helping the plant to grow and flourish.

#### Roots

Roots soak up water, oxygen and nutrients from soil. They also help to support the plant. Plants can have two different types of root systems: taproot or fibrous. A taproot is a single large root. Taproots grow straight down and act as strong anchors for the plant. A carrot is an example of a taproot.

A **fibrous** root system has many smaller roots which branch off the main root. These smaller, branching roots grow close to the surface of the ground. They spread out underground and surround the plant. These roots help to keep the surface soil from blowing or washing away. Grass is an example of a fibrous root system.

#### Leaves and Stems

In green plants, the leaves absorb light and convert this energy into food for the plant, which is carried through the plant by the stem. The food and water which is pulled from the soil by the roots also travels through the stem. The stem helps to hold the plant up, which helps it get more light from the sun. There are two kinds of stems: **herbaceous** and **woody**.

**Herbaceous plants** usually have flowers and soft green stems which bend easily. They die back to the ground when they have completed their growing season. Most annuals, perennials, vegetables and houseplants are herbaceous plants.



Cosmos



Larkspur



Hibiscus



**Woody plants** have stiff woody stems that stay in place when the plant has completed its growing season. Woody plants can have trunks or just branches. When in bloom, woody plants can have colourful flowers, leaves and berries. In the winter, when you see bare branches everywhere, you are looking at woody plants that are dormant over the winter. Trees and shrubs are examples of woody stemmed plants.



Lilac



Forsythia



Roses

### Seeds, Fruits and Flowers

Seeds produce new plants. In flowering plants, the flower produces the seed. In plants that produce fruit, the seed is found in the fruit, as in an apple.

### Plant Groups

As we've seen, when you put things into groups, the group name itself can help you remember things better. The group name tells you what the things have in common. Let's say you're at the grocery store and you forgot your shopping list at home. To help yourself remember what was on the list, you could think in terms of groups. For example, "What vegetables did I need?", or "What dairy products was I supposed to get?", etc. Plants are also divided into groups based on their growing seasons.

All plants originally come from seeds. Seeds grow into plants and the plants then produce their own seeds (in a flower or fruit). The seeds ripen and fall, and then the plant dies back to the ground. Plants complete this cycle during their growing season. Some plants die, never to grow back again; others will sleep underground (in a dormant state) until the next growing season arrives.

- **Annuals:** complete their life cycle in **one year**
- **Biennials:** complete their life cycle over **two years**
- **Perennials:** repeat their life cycle over a **number of years**

### Annuals

Annuals are quick-blooming flowering plants that have lots of bright colours. They bloom all summer and then they die down in the fall, when the first frost comes. In landscaping, you'll find them in hanging baskets, planting pots on patios and decks, and in flowerbeds. They are generally cheap to buy because they only last for one growing season.



**Pansy**



**Morning Glory**



**Sweet Pea**

### Biennials

Biennials take two years to flower or produce fruit. The first year the plant grows only its leaves above ground. It sleeps through the winter, and then in the second year the plant will flower or produce fruit. Some vegetables such as carrots, cauliflower and onions are biennials. Some examples of biennial flowers are hollyhocks and verbena. In landscaping, most flowering biennials are more expensive than annuals, because they are generally bought when they are in their second season.

### Perennials

Perennials will flower year after year. Once they're planted in a landscape, they will bloom at the same time each growing season. They have a limited bloom time of usually 2 - 3 weeks. For example, daffodils and tulips are perennials that bloom in the spring and then die back to the ground. They do not flower all summer. Other perennials will bloom in mid-summer, late summer or fall. Flowering perennials generally cost more than annuals and biennials because they are more permanent.



**Daylily**



**Geranium**



**Peony**