



Homestead Gardens

Davidsonville, Maryland

Gardening in Containers

Gardening in containers is as old as civilization. Whether a simple flower pot or an elaborate planter display, you will soon learn that plants and containers go well together. Container gardening is a combination of horticulture and design savvy, knowing what will grow well in a container environment and what will look interesting and inviting.

Selecting the Right Plants. Plants for container planting must have certain basic characteristics to qualify as container candidates.

Root Growth. It is the roots of the plant or plants that must be able to fit and function well in a specific size and shape of container. Large plants, such as trees, need lots of root space and will soon outgrow a container. When looking for permanent shrubs or trees as container plants, try naturally small plants or dwarf forms of larger plant varieties. Plants that mature to a small size are generally constrained in their growth by their limited root size. This fact makes them perfect container plants. For example, an Eastern White Pine will grow over 80 feet tall. Its high rate of growth would make it too large for a container within a very few years. However, a dwarf Japanese Shag Pine grows to only 3 feet tall in its lifetime and would be a good container plant for many years. On the other hand, perennials and annuals are plants that are normally smaller in size than shrubs and trees, and are often the most suitable for containers, especially when many plants are to be grown in the same container.

Sunlight Requirements. The amount of sunlight that the container location will receive, is an important consideration when choosing the plants that will be growing in the container. Sun-loving plants should be selected for most-sun locations, which means that the plants will be receiving half- to full-day direct sunlight. Locations in mostly shade or indoors will require low-light plants that would do well with only a half a day or less of direct sunlight each day.

Water Requirements. Plants may require more or less water, depending on their needs. Some plants are native to wet or moist areas and may only do well if they have moisture available at all times. Other plants may have their origins in a dry desert environment and have adapted to conditions in which very little soil moisture is desired. Selecting the right plants and accommodating its specific moisture needs will determine your plant selection and the frequency of watering the container may require.

Selecting the Right Container. The size, shape and material of the container will determine how well the plants grow in that container.

Container Size. The size of the container is important for accommodating roots. There also must be adequate space for soil or a potting medium surrounding the roots. Soil is necessary for physically supporting the root system and which will retain water and nutrients. The size of the container is also important for tall plantings, such as trees, tall shrubs and vines. Both the

size and shape of the container must be considered to adequately stabilize the container planting.

Container Shape. The containers shape is important, to allow good root extension and stability. Containers that are too narrow offer poor root extension and stability. Containers that are too shallow will not provide adequate soil depth for the roots to grow.

Container Materials. Containers can be constructed from many types of materials, such as wood, clay, concrete or man-made composites. Selecting a container made from a light-weight composite will be easier to move than one which is made of a heavier material, such as concrete.

Containers made of clay are porous and may not survive freezing conditions. The advantages and disadvantages of specific materials should be evaluated when selecting the right container for a specific use.

Planting Mediums. The medium or soil mix in which the container plants are to be planted, is normally a “soil-less” mix. This mean that the soil is not from the ground, but made up of a combination of organic and inorganic matter. Soil from the garden is not normally suitable for containers. They may be too heavy and may become compacted. This would be a problem for plant roots that are restricted to the confines of the container. That is why potting mix (which is also called potting soil or container mix) is recommended.

Most potting mixes are a combination of peat moss, bark, vermiculite and/or perlite. The mixture is the right combination for anchoring the roots, providing moisture and nutrient retention and allowing good drainage for excess water. There are many brands of potting mixes on the market and most are satisfactory for use in container planting. Some contain added items, such as plant food and moisture-holding polymer crystals or wetting agents.

Drainage. A container, just like garden soil, must allow for excess water around the roots to drain away. Waterlogged soils contain little air, something the roots take in along with water. When drainage is poor, water displaces the air in the soil and the roots “drown”.

Drainage Holes. All containers should have holes for water to drain from the container. A container without holes would be very difficult to control “wet feet” and root damage would likely occur.

Drainage Materials. Drainage is aided by adding coarse materials on the bottom of the container, to hold back the soil, while allowing the water to escape. Gravel or broken crockery is normally used for this purpose. However, if you wish to reduce the weight of the planted container, you can substitute lightweight Styrofoam “peanuts”.

Saucers. For pots and some planters, a low dish or saucer is used to catch the water that drains from the container, rather than letting the water pool or run off the floor. Saucers can match or complement the material, color and style of the container, or can be made of a neutral material, color and style (such as clear plastic). Remember that saucers and other water catchers need to be drained from time to time, so that the pot does not rest in standing water. This may cause the soil in the container not to drain at all, but retain excess water.

Planting Procedures.

1. Fill the bottom of the container with potting or container mix, to the level at which the plant's root ball is at the desired height in the container.
2. Plant the plants with the largest root balls first. They will take up the most room and need to be accommodated before any smaller plants are planted.
3. Remove the plants from their containers. Loosen the soil on the outer edge of the root ball on shrubs and trees. This is to encourage outward root growth. Do not loosen the soil around the root balls on annual bedding plants and perennial plants. These plants are not likely to need this loosening and may be damaged if disturbed.
4. Fill the container with more planting mix to fill all gaps in the root zone. Firmly press the soil around the plants.
5. When the planting is completed, soak the entire container thoroughly with water. This will displace any large air pockets and settle the soil around the roots.

Fertilizing. Fertilizing the plants at the time of planting is a good idea. This will help the plants get a good start in the container. Some potting mixes already contain plant food. If not, you can add plant food when you plant. It is recommended that you use a water-soluble plant food (one that is mixed with water) such as *Miracle-Gro*®. You can also use a slow-release plant food such as *Osmocote*®.

Watering. Containers will need frequent watering, as they will drain more freely than in the garden. In hot weather, the plants will need to be watered more frequently, probably several times a day. Each watering should be the same. Soak the entire surface area of the container and keep watering until water is seen emerging from the drainage holes. This will ensure that the water has gone down to the bottom of the container.

End of Season. Most container gardens will be good for only one growing season. The plants will either die or go dormant. It is very difficult to try to save the planting over the winter and it may not be worth the effort. Remove the annuals and perennials. Tropical plants, which are considered "annuals" if left outside in winter, can be relocated indoors and kept as houseplants during the winter. Containers should be stored in an indoor location to prevent winter damage. The potting mix can be left in the container and be reused when the container is replanted in the spring.