

Over the course of my three decades as a plant grower and producer I have heard every perceived reason why a person has a problem with their plants. “I don’t know a thing... I don’t have any luck” and the most commonly heard...“I just don’t have a green thumb”. I try to explain that the most likely reason is that they have never been properly taught the simple steps required to guarantee success with their plants.

The chance of your gardens success or failure begins almost immediately with the plants selected and the things you practice immediately after bringing it home. By following the four basic plants care instructions listed below the chances your plants will survive and thrive in the garden will be greatly increased.

### Step 1. Right Plant- Right Location

Before you ever put a spade in the ground or drop a seed in the soil, you need to sit down and think about what you want from your garden and the plants you will require. If you choose plants that are well suited to the location where they are to be planted they will perform to their maximum potential.

#### Selecting the proper plant

When choosing what plant to purchase you must consider:

##### 1. Characteristics and traits of the plant and their function

- a. What is the purpose of the plant? Is it being used as a hedge, a flowering shrub, to block a fence or as a stand-alone showcase?
- b. Is the plant hardy enough? Will it grow to the proper height required or will it stay short for the space allocated?
- c. Can the plant survive with the water and exposure being provided?
- d. Can the plant be pruned or shape or is it free form.



- e. ***Make sure that the plant is healthy and pest free at time of purchase***

- ##### 2. Consider your local climate and environment.
- In south Florida we have hot rainy summers and dry winters. Consider this when selecting your plants. If you decide to go with a plant that has an annual life cycle, verify what the right season is for the plant prior to planting. Vegetables and Herbs will not survive south Florida’s harsh summer heat and continuous rains.

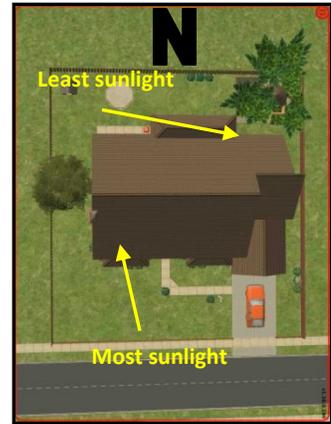


## Selecting the proper location

**1. Select the location in the home or yard.** Select a plant that will perform in the location you have chosen in your home. Houseplants won't perform in the sun and flowering plants won't work indoors

**a. Exposure & Light.** Select an area in your yard or house that gets adequate sunlight for the plant chosen.

- All things being equal, Southern exposures provide the most sunlight followed by the West, then the East and finally the Northern exposure provides the least sunlight.
- Give flowering plants 12-16 hours of light per day
- Give foliage plants 4-6 hours (200ft-cc) of indirect light per day
- Cacti and succulents require a minimum of 6 to 8 hours of bright light.
- Variegated plants have less chlorophyll and require more light to achieve photosynthesis than green plants or they will *revert* to green
- Plants near a window receive far more light than ones several feet away.
- **Etiolation**, or stretching, is a sign that the plants are not getting enough light



## b. Temperature & Humidity

- The ideal temperature range for most houseplants is between 60 and 80 Fahrenheit
- Avoid locating plants too close to window sills, especially if they are in glass containers. Also remember that window sills are drafty and get very cold during the winter
- Remember what was stated above about exposure and follow the rules depending on the plants sensitivity to sun and heat
- Most plants, cacti and succulents being the exception, require high humidity, especially tropical plants.
- Tropical plants thrive in relative humidity of 80 percent or greater while the relative humidity of an average home is between 35 and 60 percent
- Homes with central heating are very dry during fall and winter. The same is true in summer of houses where the air conditioner runs a lot.
- Make sure to water properly and avoid drafts near doors or windows



## Step 2. Proper Planting

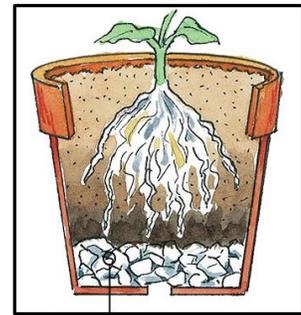
Whether planting in the ground or in a container, selecting the proper soil and proper placement of the plant are crucial to the success of your garden. First we begin by deciding whether our plant's final location is in the ground or in a container.

### 1. Planting in container or in the landscape

It is important to choose the correct size container for the plant. Containers too small or too large present an unbalanced appearance. An appropriate container should provide room for soil and roots, allow sufficient headroom for proper watering, and be attractive without competing with the plant

#### a. Planting in a container

- *Select a pot that has good drainage*
- Place a layer of small gravel rocks in the bottom of the container to create drainage and provide weight
- Lay a piece of fabric material on top of rock to prevent soil from clogging gravel
- Place plant in container and check depth. The top of the root ball should be even or slightly above the surface soil
- Backfill hole with good soil
- DO NOT add fertilizer into the hole!



#### b. Planting in the ground

- Dig a hole twice as wide and just as deep as the container
- Remove shrub from container by knocking on the sides of the pot and carefully removing plant
- Do not yank or pull on the stems
- Place plant in hole and check depth. The top of the root ball should be even or slightly above the surface soil
- Backfill hole with good soil
- Water the soil slowly to eliminate air bubbles
- DO NOT add fertilizer into the hole!



### 2. Selecting your soil

Soil selection is important because it will dictate whether the plant you choose will flourish or flounder. The ideal soil will:

- Anchor the plant
- Hold moisture and allow air circulation
- Not saturate when over watered
- Maintain a balanced pH that will maximize the availability of nutrients to the plant

## a. Soils for container growing

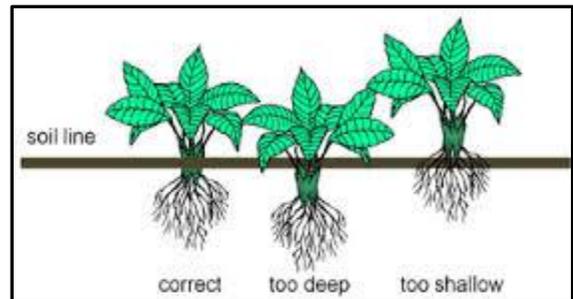
- Soils to be used in container growing must have superior drainage and be quick to dry out. A combination of Potting soil, Perlite or Pumice and sand are the preferred combination mix.
- Ideal soils hold moisture and allow constant air circulation around the roots, will not saturate and will maintain a balanced pH
- Yard loam, sandy soils or top soils should never be used for planting in containers
- pH: Most house plants prefer slightly acid soils in the 6.0 to 6.5 range
- For orchids use bark. Orchids love their pH low



## 3. Proper planting techniques

### a. Planting depth

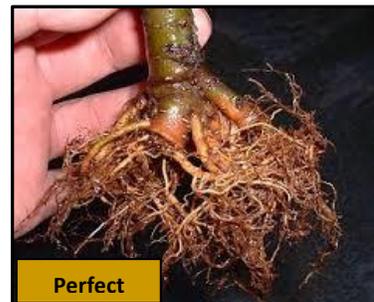
Whether planting in a container or in the ground never plant deeper than the existing soil line. Observe the existing plant and where the soil line is. When placing in the ground, make sure that the soil line is slightly above or even with the soil you are using to backfill. One of the most common mistakes is to plant too deep, in which case the plant rots, or too shallow, in which case the plant flops or falls over. If the plant requires support, use temporary stakes until it anchors into the soil and can sustain itself upright.



### b. Root Pruning

Root pruning is the process of cutting back (trimming) long roots to encourage a tree or shrub to form new roots closer to the trunk, develop a strong and healthy root mass and stimulate the growth of more hair or feeder roots that will increase the likelihood of success when the plant is being transplanted.

The impact from root pruning depends on the age of the plant, the size of the root ball, the amount of roots removed and the overall condition of the plant whose roots are being pruned.



- Root pruning is more injurious to old mature plants than it is for younger more vigorous plants
- Damage typically increases with the more cuts you do and the amount of roots you remove
- Root pruning a plant will often slow down the growth of the plant
- Plants that are in poor health or under stress should not be root pruned



### Notes on Root Pruning

- Choose the right time of the year. Spring and summer is the best time, winter the worst
- Prune roots only with sharp tools to avoid tearing or pulling
- Slice around the periphery of the root ball with a sharp knife and loosen the roots without tearing or pulling
- Remove excess soil from around roots so that you can see what you are cutting
- Trim or prune approximately  $\frac{1}{4}$  of the root system. Remove any old or diseased roots. Make sure to leave as many feeder roots as possible
- Fill container with good soil and spread roots out inside container onto the soil
- Replant the tree to its original planting depth and fill in around the roots with fresh soil. Firm it down gently with your hands to secure the tree.



### c. NO fertilizer at time of planting

Although some people suggest that you should fertilize your plant at time of transplanting, my recommendation is to NOT fertilize and most definitely never add any fertilizer into the potting hole at time of planting.

- Plants are under shock and duress when being transplanted.
  - They are at a new location with different environmental and cultural conditions from those they are accustomed
  - They have been transported and moved around
  - Their roots have been disturbed or removed
  - Their growing conditions are different
  - Fertilizers push them to produce and grow only adding to the stress
- Allow a period of a week or two for rest and adjustment before adding any topdress fertilizers

### d. Water immediately after planting

We will discuss watering more thoroughly in the section below, but for now suffice to say that immediately after transplanting your new plant you need to water the soil completely

- Water the soil (not the foliage) slowly to remove air bubbles in the soil around the root system
- Stop if necessary, continue once water level has gone down
- Continue watering until soil is moist and wet but not saturated
- Straighten out the plant or raise plant if it sunk below original soil line
- Monitor and do not allow to dry out for the first week
- Follow watering instructions for plant afterward establishment



### Step 3. Proper Watering

The number one reason houseplants don't thrive is overwatering. More homeowners kill their plants from overwatering than any other man-made cause. It is impossible to give precise rules about watering because of all the different variables. The general rule of thumb is water more, but less frequently. The key word is restraint.

- Mist or water your plants in the morning hours so that plants have a chance to dry during the day. Watering at night encourages disease development.
- Give enough water that the soil is damp but not wet. Do not re-water until soil is moist but not dried out.
- If the soil feels damp, then you don't need to water plant. If it feels dry then it's likely you need to water it.

#### Cacti & Succulents

- Never use a spray bottle. For watering use a watering can with a long spout to reach in between the plants.
- Water the soil around the plants, but as little as possible the plants

#### Orchids

- When watering orchids, the goal is to saturate the bark pieces, not the roots themselves
- The best way to water orchids is to place the entire pot into a bowl that's at least as deep as the bark line. Pour room temperature water over the bark to just below the lip of the pot and let the bark soak for 10 to 15 minutes. If you put water in the bowl first, you're apt to push the bark out of the pot when you sink it into the water!

#### Air plants

- Need some moisture; from late spring to mid-autumn, mist daily. In winter, mist only once or twice a week.



### Step 4. Proper Feeding & Caring

#### a. Nutrition

- Any standard houseplant fertilizer with balanced amounts of nitrogen, phosphorous and potash (20-20-20) can be used. Preferably use control release fertilizers that will last longer and won't burn.
- Most houseplants require a minimum of 200ft-c lighting to necessitate fertilizers. Thus, houseplants only need to be fertilized 2-3 times per year
- Add liquid fertilizer every month during their growing season for most plants being grown outdoors

#### b. Pruning & Trimming

Pruning is an essential gardening skill. When you prune correctly, you encourage healthy growth and flowering, as well as good looks.

- Make sure your tools are clean and sharp
- You must prune at the right time of the year. Spring and Summer are best, winter the worst.

#### c. Cleaning

Indoor plants may collect dust or greasy films that dull their appearance, making them less attractive. Clean leaves are favorable to healthy growth.

- NEVER use leaf shine, the waxy coating residue will interfere with air exchange
- Cleaning helps control insects
- Enhances the plants' attractiveness.
- Allows the plant to freshen and clean the air

#### d. Transferring and moving locations

- Don't move your plants around a lot. Transferring plants causes them to shock.
- If transferring is necessary, slowly adjust the plant to the changing conditions by transitioning to the new location
- When transferring plants from indoors to outdoors be careful of sun scorch and burn
- When transferring plants from outdoors to indoors, be sure to provide adequate lighting until the plant adjusts