

A WORD OR TWO ABOUT GARDENING

Flower beds: getting started

During a South Florida summer there's only a limited number of plants suited to an annual flower bed. Conditions become more favorable as we ease out of the rainy season and by October we can prepare to set out transplants as they become available in area garden shops. Compared to further north, where they are a mainstay of summer gardens, annual bedding plants aren't as popular in local yards. In large part this is a result of our subtropical climate which permits an extensive range of flowering trees and shrubs to be grown for year round landscape color. Even so with the approach of fall consider using some of the colorful bedding plants that appear in local garden shops for a 'dry season' flower garden. This is a relatively easy means of livening up a drab yard for the winter holiday season.

First let's first clarify what types of plants are employed in flower beds. Annuals are most often used: they flower (set seed (e.g., marigolds, their energy in the and leaves, then in Only a few biennials carnations).



and die) within one year after seed is sown zinnias and cockscomb). Biennials direct all first year to developing a root system, stems the second year they flower, set seed and die. are used locally as bedding plants (some Perennials can last for three or more years, but

many of those used as bedding plants in Miami-Dade will only survive for one season under local conditions (e.g., Gerbera daisies, pelargoniums and Scaevola 'Blue Wonder'). Plants grown from [bulbs, corms and rhizomes](#) can also be used as bedding plants and some such as amaryllis can become more permanent feature of the landscape.

Factors to consider when choosing your bedding plants

- ◆ Seed grown or transplants
- ◆ Container or in ground
- ◆ Sun/water requirements
- ◆ Maintenance requirements
- ◆ Longevity in landscape

Growing from seed: start seeds 3-4 weeks before recommended date for planting out as transplants. Marigolds, phlox, sunflowers, snapdragons and zinnias can be sown directly outdoors. Seed tapes/mats (strips/squares of biodegradable tape containing regularly spaced seeds) can simplify planting. Plants with fine seed (petunias, Persian violets, wax begonias and impatiens) are difficult to sow - transplants are much easier. If you decide to try fine seeds, mix them with some fine sand in a salt-shaker, and then sprinkle onto soil in a seed flat. Larger seeds should be planted no deeper than the size of the seed. The seed flat can be placed in a large, clear plastic bag (to retain soil moisture) until seeds germinate. As the cotyledons emerge increase light exposure, and after the first true leaves appear, carefully transfer seedlings to 2-3" peat or plastic pots. Planting seeds too deep and water stress (too little or too much) are the principal reasons for failure. Growing from seed requires more effort, but it allows you to choose from a much wider range of bedding plants.

◆ Color scheme

Consider using [raised beds](#) or [large containers](#) if the alternative is digging into local Miami limestone. Raised beds are also useful on marl based soil where drainage is poor. If you decide to plant directly in the ground prepare your planting beds well in advance, adding organic matter (e.g., garden compost/sphagnum peat), coarse sand and Perlite to produce an enriched but free-draining soil. Alternatively purchase one of the pre mixed soils for annuals and blend this with existing garden soil. Many flowering bedding plants are ideal for



planters, in particular wax begonias, pelargoniums, kalanchoes, and pot marigolds (calendulas). Smaller containers permit plants to be moved out of direct sun as temperatures rise in spring. Dwarf and trailing bedding plants are also particularly useful for hanging baskets.



Before planting, carefully tease open the root ball after removing the plant from its' container, as transplants are often root-bound. Blend a slow release fertilizer (e.g., 4lbs per 100 sq ft of a 14/14/14) into the top 4-5" of soil. Position each plant

so that the top of the root ball is just above the surrounding soil.

Gently water around the base of each transplant using a wand-type watering applicator fitted with a breaker-nozzle. In order to avoid potential disease problems, it is important that soil doesn't cover the basal rosette of leaves in plants such as gerbera daisies and statice. To control future weed problems, a pre-emergent herbicide can be carefully sprinkled around the transplants after they are set out, and lightly watered into the soil (consult the label to see that the herbicide is compatible with the chosen bedding plants). A pre-emergent herbicide will need to be re-applied every 8-10 weeks.

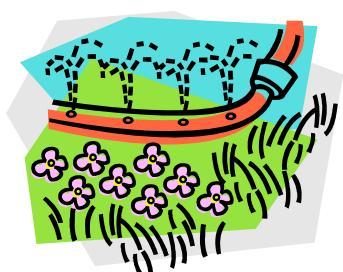
Purchasing transplants, although more expensive and offering less variety than seeds, is the quickest and most reliable way to establish a flower bed.

Most flowering annuals require full sun, though some afternoon shade can help reduce water stress. For instance impatiens will withstand full winter sun in South Florida; however it is better to provide dappled afternoon shade. This will help extend their survival without the need for daily watering. Some light shade is advisable for browallia (amethyst flower) and Persian violet (exacums) and prevent pelargoniums from wilting. Afternoon shade from hot sun will prevent scarlet sage and wax begonias from losing leaves. Gerbera daisies, with stand partial shade – where wax begonias are to be exposed to full sun, chose bronze leaved cultivars.



Water is an important factor, not only the method chosen to irrigate the flower bed, but the drought tolerance of the chosen plants. When setting out bedding plants, those having similar water requirements should be grouped together – lantana and portulaca are far more drought tolerant than impatiens. Hand watering your plants is the simplest option and suitable for containers or a small

flowerbed (see above). A more reliable and less time consuming alternative, especially for a large flower bed, [is a micro-irrigation system](#). This delivers water directly to the roots and not only saves



water but along with [the use of mulch](#) helps prevent large fluctuations in soil moisture.

Use of overhead watering (e.g., lawn sprinklers) is wasteful of water, and can result in disease problems since they are often left on too long for bedding plants.

Installing [soil moisture sensors](#) ensures that the irrigation system only provides water when needed. In addition overhead watering can reduce flower quality, especially if it is too warm or cold (e.g., white ring spots on impatiens flowers). Too little water will cause plants to wilt, drop leaves and interferes with flowering. Repeated episodes of wilting can weaken plants making them more susceptible to pests, and at some point becomes irreversible. Make sure wilting is due to a lack of soil moisture and not to soil that is too wet (which interferes with root function by depriving them of oxygen) or disease (which is often the result of soil that is too wet). In either of these instances providing more water will exacerbate the problem.

Maintenance requirements of bedding plants can be lessened if they have been correctly installed (with regard to soil, sun exposure and spacing) and appropriately watered. Once installed, inspect each flower bed on a regular basis – the sooner a problem is found and the cause correctly diagnosed the greater the likelihood any corrective action will be successful. **Arthropod pests** include mites (especially spider mites), aphids, mealybugs, thrips, whiteflies, various caterpillars and occasional pests (leaf hoppers and leaf eating beetles). Snail damage is not a problem locally at this time of year – may occur if the soil is heavily mulched. **The risk of disease** can be controlled to a certain extent by avoiding heavy soil (e.g., black muck soils), not overwatering and keeping water off the leaves (hand water early in the day so plant surfaces can dry-off). Before deciding to use a pesticide read the product label carefully as to its suitability. Insecticidal soaps are popular since they are thought of as being relatively benign. Even here take care when using soaps on impatiens and lantana and expect flower damage on begonias, chrysanthemums, petunias and salvia.

Weeds should be removed promptly before they produce seeds. Hand pull, removing the entire weed



including the roots (this is easier in moist soil), clasping the base of the stem between thumb and fore finger at the soil line then slowly pulling.

Mulch can help to prevent weeds, though not if it is allowed to decompose before being replenished. Although only occasionally encountered, be on guard for [dodder](#) (*Cuscuta* spp.), a parasitic vine with thin leafless yellowish stems (resemble linguini). This can devastate a flower bed, physically attaching to and coiling around the host plant. Infested plants should be immediately removed – certainly before dodder flowers and sets seed. Many annual and perennial bedding plants

are hosts including impatiens, salvias, chrysanthemums and petunias.

Mulch should be spread no more than 1" deep around bedding plants

Pest problems are affected by the weather: hot dry conditions encourage thrips and mites; cool wet conditions are conducive to root and crown rots; fog/ heavy dew at sunrise followed by warm dry days favor powdery mildew.

Longevity in the landscape – when planning what to use in a flower bed it is important to know the best time to set out a particular plant and how long it can be expected to last in the landscape. 'Dry

season' bedding plants (as transplants) can be set out in Miami-Dade between October and March. Within this period some plants are best set out early, others later and some can be planted at any time.

When to set out transplants:

Early Season (October – January) Cosmos; carnations; dahlias (Unwin dwarfs); petunias; pelargoniums; Persian violet; impatiens.

Mid season (January/March) cone flower, blanket flower; celosia; Dahlberg daisy; blue sage; Persian violet; gazania; blue daze; heliotrope; moss rose; verbena.

Early – late season (October-March/April) wax begonias; kalanchoe; gerbera daisy; browallia

Of those that survive the increasingly hot temperatures of late spring, the majority will be finished with the onset of the rainy season (June). If you're growing your own transplants be aware that for some bedding plants early exposure to either long days (at least 12-14 h daylight) or short days (less than 10-12 h daylight) is required either for flowering to occur or to hasten flowering. Commercial growers can artificially manipulate day length to ensure that the transplants you purchase in a garden shop are already flowering. Some important bedding plants are day neutral (flowering is not influenced by day length) including pelargoniums, wax begonias and impatiens).

Assuming optimum care, how long a given

bedding plant can be expected to last will depend largely on the weather – an unusually cool start to spring could extend the life of impatiens, kalanchoes and pelargoniums while a late start to the rainy season could prolong the usefulness of wax begonias, blanket flowers and blue sage.

Color scheme Bedding plants can be found to suit a wide variety of color schemes, with familiar plants such as pelargoniums, impatiens and petunias having flowers in various shades, tints and tones. If you want to use the same flower in a variety of different colors, seed packets offer a several selections in mixed colors (e.g., zinnias, celosias, cosmos, dwarf dahlias, moss rose and marigolds). This is useful where space is limited or you are looking to simulate the informal appearance of a cottage garden. For a larger flower bed solid blocks of color can be used, though limit yourself to no more than three colors. If using a single color, large expanses of yellow or orange in a small yard will make it appear even smaller. The simplest scheme is to use complimentary colors (opposites on the color wheel) which combine well without clashing. Plants are rarely the primary or even secondary colors shown on a color wheel but gradations varying in shade, tint and tone and these adjacent colors can be combined to harmonize the color scheme. White can be used to great effect either in blocks to alternate with two complimentary colors or to frame an entire multi-color flower bed.

