



Designing a Flower Garden

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Designing a flower garden doesn't have to be a daunting task but can in fact be a pleasurable part of the gardening experience. This fact sheet is designed to give you some ideas for putting a garden together using a little creativity and planning.

Before you get started, ask some questions.

What is the purpose? While the reason for having a flower garden can be nothing more than for enjoyment and enhancing the landscape, having a focus or theme can make the design process easier. Some possibilities include cut flower, butterfly, moonlight, oriental, hummingbird, water, fragrance, woodland, a collection of one type of plant (i.e. hostas) or a particular season such as autumn. Of course the more focused the theme, the narrower the choice of plant material that might fit it.

Who's going to take care of the garden? How much time do you want to spend planting and maintaining the garden? While thumbing through gardening books and magazines, it is easy to get inspired by beautiful photos of large, luscious gardens overflowing with annuals and perennials. The next thing you know, you're ripping out large sections of lawn for a huge flower border. Fantasy meets reality when it comes time for maintenance. Choose a size that is realistic with your goal but can be enlarged as needed. If you can't devote lots of time to maintenance, focus on low-maintenance plants or a style (prairie, cottage, and meadow) that won't demand lots of attention.

How much do I want to spend? Setting a budget can also help dictate the size of the garden and the amount of plant material you can purchase. You do not have to purchase all the plants in one season. If you have a plan, you can add plants each year and 'build' your garden over a period of time rather than making an instant garden. As the garden evolves, the look of it, as well as your ideas, will change. By not having every spot filled, you can add plants to fit your taste and the overall look of the garden. A successful garden usually has some combination of annuals and perennials. Perennials form the backbone of the garden and give it permanence. The advantage of using perennials is that they have a one-time cost and should live for several years. Annuals on the other hand, are less expensive plant for plant, but only live for the season. During the first year or two, it's a good idea to 'stuff' the border with annuals to give color and mass until the perennials fill in.

What is the site like? Before you grab the shovel or buy any plants, take an inventory of the location where you want the garden. Consider the following items:

Soil quality - Annuals can grow in poorly prepared soil (though a healthy soil contributes to optimum growth), but perennials seldom survive more than one year if the soil is not properly prepared. A rich, black loam high in organic matter is preferred. In the fall prior to planting, incorporate compost, leaf mold, or peat moss to improve soil quality. Spread 4 to 6 inches of the material on the garden and spade it in. In the spring, before planting, spade the soil again.

Drainage - Soil drainage is also crucial. A well-drained soil is desirable for most flowers, though some perennials (Marsh marigold, bee balm, and cardinal flower) thrive in or prefer wet and boggy conditions. Poorly drained soils can be a problem to many perennials, especially in the wintertime. Some (i.e. *Scabiosa*, *Chrysanthemum*,) winterkill if the soil is too wet in the winter. To test a site for drainage, dig a hole one-foot deep and fill the hole with water. Allow the water to soak in. Repeat this two or more times. If water remains in the hole after 2 hours the last time, drainage is not sufficient for growing most perennials.

Soil pH - The ideal soil pH for most perennials and annuals is slightly acidic (between 6.0 and 6.8). If the pH is too low or too high (as determined by a soil test), adjust it at the same time fertilizer is applied. To raise the pH (make it more alkaline) add ground limestone as recommended by a soil test report. To lower the pH, add sulfur as recommended by the soil test report.

Exposure - Annuals and perennials are grouped according to four sunlight requirements

- * *full sun* - receives sun for six or more hours each day
- * *partial sunlight* - 3 to 5 hours of sun each day
- * *partial shade* - no more than a few hours of dappled sun
- * *full shade* - absence of direct sunlight.

It should be noted that full shade plants still must receive some light, though it may be filtered. Few plants can grow in the full shade of a forest or grove of trees. It may be possible to thin out branches of certain trees and shrubs to allow more light for plant growth. Do this carefully so as not to destroy the shape of the tree nor encourage insect or disease problems. Also, plants growing near trees and shrubs will compete for nutrients and moisture. Consider that certain trees, such as black walnut, produce a chemical in their roots that is toxic to many plants. Some trees such as red maple, sweet gum, and silver maple have a shallow root system that competes with plants for moisture.

Existing elements –Take into account what you already have. When you landscaped your home, most likely you chose a plan and plants that enhanced the architecture and property. The flower garden(s) you intend to add should fit in naturally rather than appearing as an afterthought. Likewise, consider the style of your home. If you have a cottage, a very formal garden will look out of place but a mix of old-fashioned perennials would be right at home. On the other hand, if you have a large home, it could benefit from a bold planting with formal elements.

Make a ‘wish list’ of plants.

A good place to start in making your plant list is to think about your favorite flowers. They may be family favorites, flowers you remember from childhood or those that give you special memories. Or you might page through a catalog and pick out plants that you like based on the photos. But don’t buy on photo alone. Make a list and view the plants at garden centers, in display beds, or at local botanic gardens/arboreta. Before you actually purchase the plants ask questions about its suitability for our climate. An experienced garden center salesperson should be able to recommend superior plants and steer you away from plants that won’t perform well in your locale.

Does it grow in my area? Find out what plant hardiness zone you live in. The USDA has divided Illinois into several hardiness zones running from Zone 4B in northern Illinois (Winnebago, Carroll, Stephenson, and Ogle counties) to 6B in the southern part of the state. Most gardening books and some catalogs have a picture of the zone map in them. The average annual frost-free days and minimum winter temperatures determine zones. Most of Illinois falls within zones 5A, 5B, and 6A. Zones are important when selecting plants from catalogs or nurseries. Gardeners can usually grow plants in their zone as well as two or three zones higher. For example, if you live in zone 5B, you can grow 5A, 4B, 4A, 3A, 3B plants with little problem. Attempts at lower zone plants (6A and 6B in this case) will require significant winter protection. An exception to this ‘rule’ involves microclimates that exist and are particular to various sites. Microclimates are areas that are unique for ability to support plants that are technically planted outside of their hardiness zone. For example, if you live in hardiness zone 5, there may be areas unique to a particular property that could support zone 6 or 7 plant material. These areas are usually located where there is some protection during the colder parts of the year. Areas protected by buildings, fences, hedges, or other structures or land features can often be one or two planting zones different than other parts of the yard. Because these areas are so unique and highly individual, they are often found only after working in and observing a garden for several seasons.

Winter temperatures are not the only consideration in choosing perennials. Summer temperatures also influence plant growth and survival. A Plant Heat-Zone Map, similar to the Plant Hardiness Zone Map, divides the U.S. into 12 heat zones based on

the average number of days per year above 86 degrees F. Illinois is divided into four heat zones:

- * Zone 4 (parts of Stephenson, JoDaviess, Lake, and McHenry counties)
- * Zone 5, most of northern Illinois
- * Zone 6, most of central Illinois
- * Zone 7, most of southern Illinois and parts of central Illinois

Note that the hardiness zones and the heat zones are not the same numbers. Eventually, plants will be coded with the hardiness zone and the heat zone indications. Bear in mind that native plants are usually the toughest and most self-sufficient.

How long does it flower? Annuals provide color constantly from spring to frost. Most perennials, on the other hand, only bloom for a one- or two-week period with some having repeated flowering. With careful selection, you can have something in flower during spring, summer, and fall. With the addition of plants with winter character (many ornamental grasses and the seedheads of many perennials), the planting can have four seasons of interest. Of course while budget and maintenance issues enter into the final decision of what plants will or will not be used, a careful selection of plants can ensure that you get the best display for the investment.

Is the foliage attractive? Not enough emphasis can be placed on the importance of choosing plants that have attractive foliage. Too often, a gardener selects plants based on the type of flower and usually its color. In the case of perennials, there will be periods of time when only the plant and its foliage are prominent. You want to make sure that the foliage is attractive enough to serve as filler or backdrop for other plants in bloom or locate them where they are not in a prominent spot. Be especially careful of where you locate plants that are notorious for foliar diseases or other problems that blemish the leaves and make the plant unattractive. Some plants that fit in this category include iris, peony, monarda, and zinnia to name a few.

In addition to choosing plants based on hardiness and personal likes, there are other considerations. Specific plant characteristics such as height, width, flowering time, and texture need to be taken into account. These items are discussed in detail below.

Height - Annuals and perennials differ in their height and width. In general, shorter plants are placed in the front, medium height plants in the middle, and taller plants in the back. This progression should be broken up to create interest and appear more natural. Experiment with varying heights until you get a pleasing 'skyline'.

Spread - As with plant height, spread varies by species. Though a newly planted bed can look sparse when the plants are set at recommended distances, such spacing is needed to allow the plants to fill to their potential and avoid over-crowding. Plants set too close will compete for nutrients and moisture and infringe on each other causing

lopsided growth. Annuals planted at recommended distances will fill in during the growing season. In a perennial bed, however, it may take 2 or 3 years for the plants to fill in. During these times it is helpful to fill the bed with annuals that provide lots of color.

Form - Form takes into account the shape of the entire plant as well as its individual parts. Most herbaceous plants grow in five basic shapes: rounded, vertical, open, upright and spreading, and prostrate. The use of varying forms is a design consideration. Using only one form will result in a monotonous display. Contrasting various plant forms (i.e. planting a vertical plant next to a rounded plant) creates interest and variety. Likewise, individual flowers have various forms. Some of the more common ones are bell-shaped (i.e. *Campanula*), daisy-like (i.e. Shasta daisy, aster, zinnia), spherical (peony, marigold), spurred (i.e. *Aquilegia*), frilly or lacy (i.e. *Dianthus*), star-shaped (i.e. *Amsonia*), and trumpet-like (i.e. *Hemerocallis*).

Texture - Texture refers to the plant's appearance, not the way it feels to the touch. It is described as being fine, medium, or coarse with variations in-between (i.e. medium-fine). Factors such as density of the foliage, form of the flower, flower size, and foliage size determine texture. Small, dissected, lacy leaves are considered fine textured (i.e. Babysbreath - *Gypsophila paniculata*). Plants with large leaves are generally considered coarse-textured. Some examples of coarse plants are Peony (*Paeonia* hybrids), castor bean (*Ricinus communis*), and canna (*Canna x generalis*). Coarse-textured plants appear closer to the viewer while fine-textured plants appear to recede, which means that if your garden is a considerable distance from where it will be viewed, you need to use plants with large leaves so that they show up. The use of texture is also important in creating a garden with interest. A garden with a variety of textures creates interest. A garden composed of similar textures is visually boring.

Pick a focal point.

Place beds or border where they can be readily seen and admired from inside your home as well as outdoors. Try to locate them in areas of high visibility, such as a front yard, near windows, the porch or patio. Keep in mind other factors such as soil type, drainage, pH, and light. As you tentatively decide where the garden should be, you may find that there are several locations that can benefit from the addition of plants – a courtyard, a patio, or the front door – rather than one large, overwhelming garden. Many gardeners are incorporating flower borders in the front yard in place of foundation shrub plantings, because this is often where the most light is available and passersby view it. Make the garden work for you, not the other way around.

Make a sample plan.

Making a plan can sound like a daunting task but it doesn't have to be. A plan can be something as a rough pencil sketch on a piece of scrap paper or as elaborate as a detailed, to-scale drawing. The idea is to get your thoughts down on paper. It is much

easier to shift plants around on paper as opposed to doing it after they are planted. You can get a feel for whether the garden is large enough for the plants you intend to grow, and if they are compatible for the site. This plan also serves as your 'blueprint'. When you go to plant everything you'll have their location right at your fingertips.

To make a sample plan, measure the garden area. For your plan, use a scale of 1/4 inch, 1/2 inch, or 1 inch equal to one foot. For example, if your garden is 20 feet by 10 feet (200 square feet), you would draw a representative 'garden' 20 inches by 10 inches (200 square inches) on a piece of paper. Graph paper, available at craft or art stores makes this job a little easier since the grids are already marked.

The next step is to draw in the plants you intend to grow. You'll need to determine the width the plants will be at maturity. Generally the width is equal to the height but there are exceptions. Use a garden catalog or some other reference to find this information. You can either draw the plants directly on the plan, or use cutouts to move them around. Use the same scale you did for drawing the garden outline. Assuming you used 1 inch equals 1 foot for your garden plan, a plant that spreads 4 feet would be represented by circle 4 inches in diameter.

This exercise eliminates a problem many gardeners experience. They don't make a plan, go to the garden center and return home with a carload of plants and start shoe-horning them in randomly. Since the plants are not fully mature, and are in quart or gallon-sized pots, the tendency is to plant them closer than they should be. Within a few years, the plants mature and begin to crowd each other, resulting in poor growth, competition for nutrients and moisture, lopsided growth, more disease problems, and the need for immediate division/replanting.

Put it all together

The key to a successful planting is to put together pleasing combinations of plants. But what makes one planting stand out better from another? The following key elements will help you create top-notch plantings.

Color - When you begin to think about a garden and plant selection, often the first thing that comes to mind is color. While this is not necessarily the most important item, it is worth considering since it is one of the qualities we use to determine whether or not we like a particular garden. Color is a very personal thing. There are no 'wrong' colors, so a garden made up of many colors can be just as beautiful as one where the designer painstakingly chose various tints and shades and carefully placed them. Don't be trapped into designing an elaborate scheme based on color. Choose what pleases you. If you decide to go the route of designing your garden based on color, there are some guiding principles.

Color can be used to your advantage. Warm colors (red, yellow, and orange) are the boldest, the most exciting, and tend to be the strongest. They show up from a distance, make a statement, and are good for a dramatic display. Of these colors, red is the strongest you can use. In large areas, red shows up and gives a splash of color. Likewise, yellow captures the eye quickly. It also looks good with most other colors. Orange is difficult to use and can be harsh to view. In the right combination it can add a bit of the unexpected.

Cool colors (blue, green, and purple) are recessive, and therefore tend to get lost in the distance. Cool-colored flowers look best in bright light and in a location where they can be viewed up-close, on a patio, for example. They also contrast beautifully with brighter-colored flowers.

Use white and silver/gray plants for blending the colors. Plantings of red, purple, or blue are greatly enhanced with white or gray. Likewise, plants with colorful or variegated foliage (i.e. coralbells, coleus, plectranthus, or hosta) can provide texture and season-long interest.

Contrast - Contrast is defined as two opposing elements. The most eye-catching designs incorporate this element, allowing the garden to have some interest rather than looking like 'floral mush'. The easiest way to accomplish this is to contrast colors (red and green, violet and yellow, orange and blue, yellow and blue, orange and red, or red and violet). Another way to provide contrast is to use different plant forms or flower forms. Plant forms may be conical, mounded, rounded or vertical. Plants with distinctive forms create interesting groupings. For example, tall, vertical plants create emphasis among a grouping of shorter, rounded perennials. Individual flower forms also vary from rounded (daisy-like) to spiky. Matching up plants that have different forms of flowers creates contrast.

Mass - Using a mass of plants has more impact in the garden. The masses provide sweeps of impact among patches of color and texture. For most flowers, plant at least three of each variety -- meaning the same color, height, and spread. The plants within the group eventually merge to form a showy clump. Plants do not have to be massed if garden space is limited and/or the plants are large (i.e. peony, castor bean, or canna). For an informal look, plant uneven numbers of a variety (i.e. 3, 5, or 7) and stagger the plantings.

Drift - **Never** line up the masses or plants in straight rows unless you are designing a garden for a commercial, public location. Instead, let one mass of plants embrace, overlap or drift into an adjoining mass. The overall appearance will be more natural. Think about how nature does it; rarely, if ever are the plants lined up.

Repetition - Repetition provides a sense of unity in a garden. In a small flowerbed, this isn't as important as it is for a larger border. Using this technique moves the eye through the flowerbed and gives a finished, harmonious look. You can achieve repetition by repeating the same color or plant material throughout the garden. For example, you could use splashes of red-flowered (or yellow, or white, or any other color) plants throughout the garden or simply use the same plant scattered through the border.

Plant Placement - In general, plants can be divided into the following categories based on their height.

Edging	less than 1 foot
Foreground	1 foot to 2 feet
Midborder	2 feet to 3 feet
Background	3 feet to 5 feet
Specimen, Accent	any height

Groundcover plants are usually 6 inches to 1 foot in height and are used for larger areas or under trees. Specimen or Accent plants may be placed anywhere in the planting for emphasis. In a one-sided border, that is, a border placed next to a structure such as a fence, wall, or hedge, the plants nearest the viewer are *edging* plants. Next in would be *foreground*, followed by *midborder*, and finally *background* so that the plants are basically stair-stepped shortest to tallest. Using the drift technique as described above prevents the planting from appearing too staged. Also, occasionally bringing taller plants to the front of the bed add interest and breaks up the formality. Island beds are not placed against a structure but rather float alone in the landscape and are viewed on all sides. These beds, which can be round, oval, half-moon, or kidney-shaped, look best when surrounded by a large expanses of lawn. With an island planting, the same rule for plant placement applies: shorter plants at the edge, medium-sized plants in the middle, and tallest plants in the center. This gradual placement of plants by size is easier on the eye of the viewer. A jump from a 12 inch edging plant to a 12 foot plant is usually too drastic unless that was the design intent.

Diversity - the well-rounded garden includes a variety of plant material. While most gardeners focus on using annuals and perennials, a 'mixed border' incorporating vines, trees, and shrubs can provide for an ever-changing display through the seasons. Certainly the larger the garden, the more opportunity for including a diverse palette of plants. But a small garden offers the same challenge. Because space is limited, you want to include as many different plants as possible.

Be creative - think outside the box. The aforementioned guidelines are just that. They are meant to be a starting point, not the law. Let your creative juices flow as you plan your garden and choose plants. The more personal you make it, the more you will enjoy it. You will find that the garden is not the means to an end. Just when you think it

is finished, you will come up with ways to change it. The garden is ever changing, too. Plants die and need to be replaced, others become too large and need dividing, still others won't meet your expectations and need to be removed, and of course you'll always want to add something new.