

under ideal laboratory conditions. Expect maybe half as many if you are seeding outdoors exposed to the vagaries of spring weather.

All seeds need moisture, fresh air, and some warmth to start the germination process. A few need light. None should be "buried." The old rule of not more than two or three times the thickness of the seed is about right. Exceptions will be noted in the directions on the seed packet.

Seedlings Guide: Grow Your Own or Buy Them

ANNUAL flowers and vegetables offer a great opportunity to display your creative talents and satisfy your curiosity about nature, and they provide a form of therapy for both mind and body.

There are several ways to produce these plants for your gardening pleasure. All of them, if properly done, will result in a garden filled with color—as well as food for your table.

If you are a do-it-yourselfer, buy your own seeds, germinate them, and then plant the seedlings in your garden. This is the least expensive way to garden, but requires work and knowledge to be successful.

If you are looking for instant color, or you want to harvest the first vegetables in your neighborhood, you can purchase started seedlings or plants, available as bedding plants in pots or flats from your local garden center. All you need do is buy them, take them home, and plant them in your yard.

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These plants will cost more than seeds, but require a great deal less work and demand little knowledge from you of seeds, germination or seedling care.

Sowing Your Own Seed

The most inexpensive way to start your garden is to sow your own seed. Seeds can be purchased at your local garden store, supermarket, or from many mail order seed suppliers. Instructions for sowing the seeds are usually on the back of the seed packet.

Many people will prepare seed beds in their yard by raking the soil in the garden area very level and to a fine texture. They then sow the seeds in rows.

While this method is the easiest, results are usually the poorest. Seeds need proper temperature and moisture to germinate, and these factors are difficult to control outdoors. To control these factors, many gardeners start their seeds indoors and then transplant the seedlings into their garden.

One of the best places for the average homeowner to germinate seed is on a window sill in small plastic flats, or in bread, pie or foil pans. Be sure to punch a few holes in the bottom of the pan for proper drainage.

One of the most important factors in germination is a good soil mix (*media*). This *media* should be free from insects, disease organisms, weed seeds and harmful chemicals. It should be well-drained and contain a relatively low amount of nutrients. For this reason *you cannot use garden soil only*. A good mix might consist of one part garden soil, one part peat moss, and one part perlite or vermiculite.

The best and easiest method of providing correct soil conditions for seed germination is to obtain a peat-lite mix from your garden center, or make your own.

Fill your container with this mixture and moisten the medium thoroughly. Then sow the seeds according to directions on the package. Next, place the entire container inside a plastic bag (such as a large sandwich bag or a

polyethylene clothes wrapper used by cleaners to cover garments). Blow up the bag as you would a balloon and tie the end closed.

Formula for Peat-lite Mix

Ingredients	To Make 2 Bushels
Shredded Sphagnum peat moss.....	1 bushel
Horticultural vermiculite No. 2, 3, or 4	1 bushel
Ground limestone	10 T*
Superphosphate 20%, powdered 5-10-5 fertilizer	5 T
Iron (chelated such as NaFe, 138 or 330)	15 T
Non-ionic surfactant (A detergent like Tide or Dreft).....	1 level teaspoonful**

*level tablespoon amounts
 **mix with one gallon of water, and water medium with this solution once before planting.

Place the container at room conditions, preferably 70° F. There should be an abundance of light, but not direct sunlight. Do not open the bag until the seeds have germinated. Once the seeds germinate, remove the bag and water as needed.

Seeds need moisture and proper temperature to germinate. The following list indicates the optimum soil temperature for germination of popular annuals and vegetable plants, their need for light and darkness to germinate, as well as the usual time needed for germination.

You will note from the table that most annual seeds require light to germinate. There are, however, a few exceptions. The seeds of Calendula, Centaurea, Annual Phlox, Verbena and Vinca should be germinated in total darkness for best results.

Most annuals germinate between 55° F and 75° F. Therefore, if temperature, moisture, and light and dark conditions

are met, seed germination will be no problem.

Many gardeners find that when seeds are germinated on window sills, the results vary from poor to excellent. This variability usually occurs because of temperature. On a bright, sunny day temperatures sometimes rise above the optimum soil temperatures needed for germination, thus delaying or inhibiting germination by drying out the soil mix or by actually dehydrating the seed.

On other days, when it is cloudy and cool, soil temperatures fall below the optimum level. The media thus remains too wet and temperatures are so low that germination is retarded or inhibited. To avoid these problems, the gardener may build a starting environment or home propagation unit.

To start seedlings of most vegetable and bedding plants after germination, a minimum of 500 foot candles of cool white fluorescent light is required. That level can be obtained at about 6" from new 40-watt fluorescent lamps spaced 6" apart. There are commercial growing carts available, or a unit can be built on a table or bench in your basement.

Usually ½" of a coarse, sterilized gravel is placed on the bench or tray to help retain moisture and increase humidity around the flats.

Proper watering of seed flats is important. The soil should be thoroughly moistened before sowing seeds.

If the flat is covered, more water will not usually be required until after germination.

Seedlings should be carefully watered so the soil is thoroughly moistened each time and so that 10 percent of that water runs through the bottom of the flat. Water along the edge of the flats or at soil level with a watering can to avoid getting moisture on the tiny plants. Moisture retained on seedling plants themselves for long periods of time will lead to plant diseases.

Poor germination usually results from one of the following reasons:

- Improper temperature
- Improper moisture
- Lack of light (except for those few seeds which require darkness)

- High salt level (too much fertilizer in the soil or too much added in the form of liquid soluble fertilizer)

Buying Seedlings

In order to purchase seedling plants that will perform, you need to understand what quality means in seedlings. Seedlings should be husky, uniform, compact plants. They should be dark green, and the roots white. The plants should also be free from insects and diseases. Avoid wilted plants or those with damaged leaves. Torn and broken leaves indicate crowding somewhere. Remember, bruised areas or cuts are prime entryways for rots, diseases and insects.

Look for plants that are labeled. This will indicate the name of the variety, and many labels also provide care instructions that help you in spacing and planning your garden.

Unlabeled plants, especially vegetable seedlings, may lead to disastrous results. Cabbage looks like broccoli. One tomato looks like another. Only the label will indicate the difference.

Seedlings are packaged in many different types of containers which vary greatly in size, shape, number of plants and size of plants.

There are two basic types of containers: community packs and individual pots or packs.

Community packs are those with more than one plant per container. Disadvantage of this type is that the plants have to be divided and their roots cut apart before they are planted in your yard. Often this will cause a check in plant growth for the first week to 10 days until the roots become re-established. Also, greater care must be taken with plants from community containers to provide ample water so plants do not become stressed and dry.

Individual or unit pots or packs are those with one plant per pot, pack or cell. These plants can be taken from the containers and planted directly in your yard without disturbing the root system. There is no check or stress in trans-

planting, and the plants will continue to grow unchecked.

There are also individual containers made of peat, or cubes made of peat-lite mix, that can be directly planted into the garden. These perhaps are the most desirable, since there is no waste to dispose of and the container will decompose in the soil.

Remember that one pack may not be equal to another. When you observe a price per pack that is different from another price per pack, check to see if the number of plants, size of container, and quality are the same.

The flat or master container can hold 6, 8, 10, 12, or 15 packs. Each pack may have 3 plants or 4, 6, 9, or 12 plants. The total number of plants may vary from 24 to 96 per flat.

A large number of plants per flat usually indicates smaller soil volume per plant; thus smaller, less-developed seedlings. Flats with fewer plants usually contain more soil volume per plant and are bushier and larger (more developed plants).

You as the consumer must make the decision: many smaller plants or fewer more-developed plants.

For the beginner, fewer more-developed plants per flat will usually be the safest route with less loss, no transplant shock, and plants which are able to withstand more abuse.

For advanced gardeners, or those who will spend the time and effort in good cultural practices, the higher number of plants per flat (if the price is less) will be the most economical buy and will provide excellent results.

To assure the maximum in growth and potential, bedding plants should be purchased as seedlings which are not full flower. If transplanted to the garden at this stage they will quickly become established, there will be no transplant shock and they will develop into the best possible plants.

But practically speaking, most gardeners are impulse buyers and want to see what the flowers look like before they buy and plant them. Ninety percent of annuals, therefore, are sold in flower. A gardener can be successful

with flowering plants by following good cultural practices, but the plants will never reach the full potential that can be realized by earlier transplanting. However, the differences in many cases are not significant.

Recent research developments on seedlings allow the commercial grower, or you as a consumer, to do prescription growing. This means that if you provide the proper temperature, growing media, moisture and light in the amount prescribed, plants can be flowered in the shortest possible time with the highest quality material possible.

For example, with prescription growing, USDA researchers are able to flower a petunia in 28 days. Commercially, anywhere from 70 to 84 days not uncommon, and 50 days would be an average crop time.

Seedlings are grown commercially under several different regimes. In one method the seeds are germinated at warm temperatures, 70° F for most species in the greenhouses. They are held from three to four weeks at this temperature, then transplanted and grown at 60° F night temperature until they are about to flower (four to six weeks), at which time the temperatures are dropped to 50° F night times until flowering (two more weeks).

This produces a hardened seedling that is able to withstand adverse conditions at the retail outlet or adverse conditions on the part of the consumer.

In a second method, temperatures are maintained at 70° F during the entire growing cycle, and the plants flower faster.

These plants will perform well in the garden if handled properly, but will not withstand adverse conditions such as drought or cold temperatures as well as hardened seedlings.

In recent years seedlings have been grown in accelerated environments, germinated at 70° F to 80° F with lights (either fluorescent or high intensity) in environments enriched with carbon dioxide, and then transplanted in two weeks. The plants are kept at 70° F after transplanting and in some cases still kept under these lights with carbon

dioxide added. With this system petunia plants can be flowered commercially in 40 to 45 days.

If plants grown this way are given adequate care by the retail outlet and handled properly by the consumer, they will provide the best display in the garden. The plants will withstand adverse conditions less well, however, than those from the first two systems.

The trend is to produce seedlings commercially in a shorter period of time, and thus a slight movement toward the accelerated environments has occurred. If retail handling is improved, and if you, as the consumer, provide adequate care, this type of plant will give the most value for your money.

If you purchase seedlings and are unable to plant them immediately place them in a location with plenty of light, but no direct sunlight. Be sure they are well watered and kept at temperatures between 50° and 70° F. Avoid cold drafts, freezing temperatures and drying out. Certain annuals can withstand light frosts: pansies, snapdragons and petunias, for example.

Plant annuals as soon as possible in a prescribed location: sunny annuals in a sunny spot with at least four hours of direct sun per day; shady annuals in an area with no more than four hours of direct sun per day.

If you have grown your own seedlings, plan to have them ready for transplanting after the danger of frost is past. When you have to hold them for a period of time, place them outside during the day—if temperatures are above freezing—and then put them in a protected area such as the garage or in the house at night until the weather is warm enough for planting.

Planting Care

Garden soil must be properly prepared to insure good growth of annuals. In the spring just before planting add a 1" to 2" layer of peat moss to the garden. If your soil is a heavy clay, use twice this amount of peat moss, as well as 1" to 2" of sand. By adding peat and sand to your soil you will eventu-

Guidelines for germination of selected annuals and vegetables indicating optimum soil temperature, need for light or darkness, and usual time required for germination

	Optimum Temperature	Light or Dark*	Usual number of days required for germination
Ageratum	70	L	5
Alyssum	70	DL	5
Amaranthus	70	DL	10
Aster	70	DL	8
Balsam	70	DL	8
Begonias (Fibrous)	70	L	15
Begonias (Tuberous)	65	L	15
Browallia	70	L	15
Calceolaria	70	L	15
Calendula	70	D	10
Campanula	70	DL	20
Candytuft	70	DL	8
Carnation	70	DL	20
Celosia	70	DL	10
Centaurea	65	D	10
Clarkia	70	L	10
Coleus	65	L	10
Cosmos	70	DL	5
Cynoglossum	60	D	5
Dahlia	70	DL	5
Dianthus	70	DL	5
Dimorphotheca	70	DL	10
Gaillardia	70	DL	20
Gazania	60	D	8
Gomphrena	65	D	15
Gypsophila	70	DL	10
Heliotrope	70	DL	25
Hollyhock	60	DL	10
Impatiens	70	L	15
Kochia	70	DL	15
Larkspur	55	D	20
Lobelia	70	DL	20
Lupine	55	DL	20
Marigold	70	DL	5
Mesembryanthemum	65	D	15
Morning Glory	65	D	15
Nasturtium	65	D	8
Nemesia	65	D	5
Nicotiana	70	L	20
Nierembergia	70	DL	15
Pansy	65	D	10
Petunia	70	L	10
Phlox	65	D	10
Poppy	70	D	10

	Optimum Temperature	Light or Dark*	Usual number of days required for germination
Portulaca	70	D	10
Rudbeckia	70	DL	15
Salpiglossis	70	D	15
Salvia	70	L	15
Scabiosa	70	DL	10
Schizanthus	60	D	20
Snapdragon	65	L	10
Statice	70	DL	15
Stock	70	DL	10
Sweetpea	55	D	15
Thunbergia	70	DL	10
Torenia	70	DL	15
Verbena	65	D	20
Viola	65	D	20
Vinca	70	D	15
Zinnia	70	DL	5

VEGETABLES

Cabbage	70	L	7
Cauliflower	70	L	14
Celery	65	L	28
Cucumber	80	L	seed in pots 3 to 6 weeks before planting in garden
Eggplant	80	L	21
Lettuce	65	L	7
Muskmelon	80	L	seed in pots 4 to 6 weeks before planting in garden
Onion	65	L	seed in flat 8 to 10 weeks before planting in garden
Pepper	75	L	21
Summer Squash	75	L	seed in pots 4 to 6 weeks before planting in garden
Watermelon	75	L	seed in pots 4 to 6 weeks before planting in garden
Tomato	70	L	14

*L indicates that seeds require light to germinate; D indicates that seeds germinate best in the dark; DL indicates that seeds germinate under either condition.

ally improve even your poor subsoil to make a good garden.

A complete fertilizer should also be added at this time: about 2 pounds of a 5-10-5 to every 100 square feet of soil. If your soil is acid, lime may also be needed.

A soil test sent to your State Agricultural University or to any private soil testing service will indicate the soil pH and the amount of lime to apply. Annuals thrive at a soil pH of 5.5 to 7.0. Be certain your soil is in this range, then turn the soil over and rake to a smooth surface. After raking, the soil will be ready for seeding or planting with seedlings.

Annuals vary in their light requirements. Some perform best in shade, while others perform best in full sunlight. Some annuals do well in either sun or shade. See the table for the amount of light that each plant will require.

Do not rely on natural rainfall to take care of all the water needs of your annual plants. In some years rainfall will be sufficient to produce fine annuals. Most years, however, plants require watering at various times to supplement the rain.

Do not use a sprinkler and do not water the tops on annuals. Splashing water damages flowers on many of the annuals, especially petunias and geraniums.

Water the plants at soil level to get as little moisture as possible on the foliage. This can be done easily with a watering wand that is available from most garden centers, or you can place a soaker type hose or plastic watering system in the flower beds.

These systems give water to the roots of the plant while the foliage remains dry. Many diseases start when moisture remains on the foliage more than 48 hours. It is true that rain will create this condition, and it usually takes a few days for the annuals to recover from heavy rain.

Plants should be watered thoroughly and less often, rather than lightly and often. This builds deep roots that will produce stronger plants.

When the flower bed is initially prepared, 2 pounds of the 5-10-5 or 10-10-10 fertilizer should be applied per 100 square feet of flower bed. This should be incorporated into the soil and worked in with the peat moss to make the flower bed acceptable for annuals. Then plant the annuals at the proper spacing according to the listed table, and allow them to grow for about six to eight weeks before adding more fertilizer.

The amount of fertilizer depends on the amount of rainfall or water applied to the plants. In general, the more water applied, the more frequent the fertilization needed. When more fertilizer is needed, apply a 5-10-5 or 10-10-10 at the rate of one pinch (the amount of fertilizer you can hold in your thumb and first index finger) to each plant.

Make sure the fertilizer is not in contact with the foliage or on the crown of the plant. If fertilizer comes in direct contact with the plant, it may burn the foliage. Place it between 1 to 2 inches from the stem of the plant. It takes only a small amount of fertilizer to make plants grow, and if you apply too much the plants will wilt, even when wet, and finally die.

Overwintering Annuals

Annuals listed in the table are not winter hardy in most areas. All will die when exposed to a few heavy frosts, so you will have to grow new plants from seed or buy new plants each year. It is rarely worthwhile to save seeds or annuals from one year to another, or to collect your own seeds. Frequently these saved seeds will not grow true to type.

However, if you wish to save seeds, choose them from healthy plants where the flowers have been left to set seed and to grow to maturity during the summer. As soon as the pods are brown, place them in a cool, airy place. When they are completely dry, remove the seeds and store them in small paper bags.

Many annuals can be overwintered

Characteristics of popular annuals and plants treated as annuals

	Color	Height, Inches	Exposure	Plant Spacing, Inches	Use
Ageratum.....	blue or white	6 to 18	part or full sun	10	border plant
Alyssum.....	purple or white	2 to 4	sun	10	good border plant
Amaranthus.....	red colored foliage	24 to 36	sun	24	good background plant
Aster.....	blue-purple	12 to 24	sun or partial shade	12	good for cut flowers
Balsam.....	red, pink, white, purple	6 to 36	sun	12-18	background plant
Begonia.....	white, pink, red	12 to 18	shade	12	good for formal beds, hanging baskets, requires little maintenance
Browallia.....	white, blue	12 to 24	sun or partial shade	12	good for hanging baskets or planters
Calendula.....	white, yellow, orange, red	6 to 12	sun	12	good for window boxes or hanging baskets
Campanula.....	white, pink, blue	24 to 36	sun	12-18	beds, cut flowers
Candytuft.....	white, pink, blue	6 to 12	sun to partial shade	8-10	good for cut flowers
Carnation.....	white, yellow, pink, red	6 to 24	sun	12	good as cut flowers
Celosia.....	yellow, orange, pink, rose, red	6 to 24	sun	12	good as cut flowers, dried flowers and hanging baskets
Centaurea.....	white foliage	18 to 24	sun	12	excellent foliage annual used in combination baskets
Clarkia.....	white, pink, red, blue	18 to 24	sun or partial shade	12	good cut flower
Coleus.....	blue flower, colored foliage	12 to 24	shade	12	good for window boxes and planters
Cosmos.....	white, pink, rose, red	36	sun or partial shade	18-24	good for cut flowers, hedge or screen
Cynoglossum.....	blue flower, colored foliage	12 to 24	partial shade, sun	12	good for cut flowers, dried flowers and climbing vines
Dahlia.....	red, yellow, pink, multi-color	6 to 36	sun	18-24	good as cut flower

Characteristics of popular annuals and plants treated as annuals

	Color	Height, Inches	Exposure	Plant Spacing, Inches	Use
Dianthus	white, pink, red	6 to 12	sun	12	good as cut flower beds
Dimorphotheca	white, yellow, orange, pink	6 to 12	sun	12	beds
Gaillardia	yellow, orange, red	12 to 24	sun	12	good for cut flowers and window boxes, planters
Gazania	yellow, orange, pink, rose, red	6 to 12	sun	12	beds
Gomphrena	white, yellow, orange, pink, rose, blue, purple	6 to 24	sun	12	dried arrangements, window boxes
Gypsophila	white, pink	12 to 24	sun	12-18	cut flower
Heliotrope	white, purple	12-24	sun	12	cut flower, fragrant
Hollyhock	white, yellow, pink, red	36	sun	24	hedges, screen
Impatiens	white, yellow, pink, rose, red, purple	6 to 24	shade	12	formal beds, hanging baskets, window boxes, planters
Kochia	green foliage	24 to 36	sun	12-18	hedges, screens
Larkspur	white, blue, pink, rose, purple	24 to 48	sun	18-24	cut flower, background plant
Lobelia	white, red, purple	6 to 12	sun	12	edging plant, window boxes, planters, hanging baskets
Lupine	white, yellow, orange, pink, blue	12 to 36	sun, partial shade	12-18	cut flower
Marigold	yellow-orange, red	6 to 36	sun	8-24	flower beds, window boxes, planters
Mesembryanthemum	white, yellow, orange, pink, rose, red	6-12	sun	8-12	planters, window boxes, beds
Morning glory	white, pink, red, blue	36	sun	18-24	climbing vine, hedge or screen
Nasturtium	orange	24-36	sun	18-24	climbing vine
Nemesia	white, yellow, orange, red, blue, purple	6-12	sun	8-12	planters, cut flowers
Nicotiana	white, yellow-orange, pink-rose, red	12-24	partial shade, sun	12-18	cut flower, fragrant

Characteristics of popular annuals and plants treated as annuals

	Color	Height, Inches	Exposure	Plant Spacing, Inches	Use
Nierembergia	blue-purple	6-12	partial shade, sun	8	window box, planter
Pansy.....	white, yellow, rose, blue, purple	6-12	partial shade, sun	12	fragrant, cut flowers, beds, window boxes
Petunia.....	white, yellow, pink, rose, red, blue, purple	6-12	sun	12	hanging baskets, flower beds, window boxes, planters
Phlox	white, yellow, pink, rose, red, blue	6-24	partial shade, sun		planters, bed, window boxes
Poppy.....	white, yellow, pink, red	12-24	sun	12	cut flower, fragrant
Portulaca	white, yellow, orange, pink, rose, red	24-36	sun	12	beds, window boxes, planters
Rudbeckia.....	yellow, orange	24-36	partial shade, sun	12-18	cut flowers
Salpiglossis.....	yellow, orange, pink, rose, blue, red	24-36	sun	12-18	cut flowers
Salvia.....	white, pink, rose, red, blue	6-36	partial shade, sun	8-18	beds, planters
Scabiosa.....	white, pink, rose, red, blue	12-36	sun	12	cut flower, fragrant
Schizanthus.....	white, yellow, pink, red, blue	6-24	partial shade, sun	12	hanging baskets, cut flower, window boxes, planters
Snapdragon.....	white, yellow, pink, red, purple	6-36	sun	8-18	fragrant, cut flower, beds,
Statice.....	white, pink, blue, purple	6-12	sun	12	cut flower, dried arrangement
Stock.....	white, yellow, pink, red, blue	6-24	sun	8-18	cut flower, fragrant, beds
Sweetpea.....	white, yellow, pink, red, blue	6-36	sun	12	cut flower, climbing vine, fragrant
Thunbergia.....	orange	36	partial shade, sun	18	climbing vine, window boxes, hanging baskets
Torenia.....	white, yellow, blue	6-12	shade	12	hanging baskets, window boxes, planters

Characteristics of popular annuals and plants treated as annuals

	Color	Height, Inches	Exposure	Plant Spacing, Inches	Use
Verbena	white, pink, red, purple	6-12	sun	8-12	window boxes, hanging boxes, fragrant
Viola	blue, white	6-12	partial shade, sun	8-12	beds, window boxes, planters
Vinca	blue	6-12	partial shade, sun	8-12	beds, window boxes, planters
Zinnia	white, yellow, orange, pink, purple	6-36	sun	8-18	beds, cut flowers, planters

by taking terminal cuttings from plants just before frost. Coleus, geraniums, wax begonias, impatiens and ageratum can be successfully propagated by taking 2" to 3" of terminal stem with leaves, stripping the lower leaves off, leaving one or two sets of leaves on the top, then placing the cut end into a medium of sand or of peat and vermiculite.

Cover the container with medium and the cuttings with a plastic bag, making sure the medium is moist at all times. Usually a period of 2 to 3 weeks will be required for rooting. Then pot in a 3" or 4" pot and place in a sunny window. Water and fertilize just as you do your other house plants.

In spring when the frost danger is over, replant in your garden. This procedure will work well if the annuals receive enough light indoors, but it will not work if they are placed in a dark area in your home.

Vegetable transplants require about the same cultural requirements as annuals. The table indicates the proper garden spacing and location for these plants. A small vegetable garden will provide food for your table and the

Garden planting guide of popular bedding plant vegetables

Species	Garden Spacing	Location
Cabbage	3' x 12"-24"	Sun
Cauliflower	3½' x 16"-20"	Sun
Celery	3' x 4"	Sun
Cucumber	5' x 3'	Sun
Eggplant	3' x 3'	Sun
Lettuce	1½' x 1'	Sun
Muskmelon	6' x 4'	Sun
Onion	1½' x 3'	Sun
Pepper	3' x 1½'	Sun
Summer Squash	5' x 3'	Sun
Watermelon	7' x 6'	Sun
Tomato	4' x 2'	Sun

satisfaction of producing your own food. If you don't have such a garden, consider planting these vegetables in with your flowers, thus mixing food and beauty together.

Your imagination is the limiting factor in using annuals in your home and

landscape. They can be used in many interesting ways, such as in wood dividers, planted in chain link fences, in old shoes made into planters, in old bathtubs, sinks, etc. The more conventional ways, of course, are in flower beds, urns, patio boxes, window boxes and in rock gardens. They can also be trained to grow like small trees or shrubs.

It is usually desirable to plant many of the same type of annual and the same color of annual in one area, instead of using one or two plants of each type. Examples of nice flower beds would be a center of red geraniums with a border of blue ageratum, or a center of pink petunias with a border of white alyssum. Use the colors and heights wisely, and you will add a new dimension to gardening in your home, apartment and landscape—"instant color."

Buying and Caring for Cut Flowers; Arrangements

THIS IS A wonderful age for consumers to decorate homes and offices inexpensively and to brighten the lives of friends with cut flowers. Flowers are attractively priced today by traditional retail florists and mass outlets. One can choose the services desired and know that there is a wide selection of cut flowers available throughout the year.

Just a few flowers in the living room or on a desk will turn a dull, dreary day into one filled with warmth and sunshine. There is truly something magic in just a single rose or carnation, a bouquet of mixed flowers, or a beautiful floral arrangement.

A number of cut flowers are available in a variety of colors throughout the year. Roses, carnations, and spray and standard chrysanthemums are pro-

duced by the specialists who provide quality flowers.

Surprisingly, the exotic anthurium commonly seen in Hawaii and the Bird of Paradise are available throughout the year. Featuring excellent lasting life, they are bound to capture attention.

Colorful daisies can be found in pre-packaged bouquets at almost any time of the year. Whether in combination with other flowers or just in a bud vase, they radiate warmth and cheerfulness sure to brighten the hearts and souls of all ages.

Midwinter and early spring is a good time to look for heather, iris, stock, freesia, tulips and daffodils. Freesia reminds one of the daylily as its buds open over a period of time.

Buying Cut Flowers

Retail florists offer a variety of services that range from cash and carry sales to arrangements personally designed, delivered to the recipient, and charged to the buyer. The consumer has a wide range of choices today in terms of both product and services when patronizing retail flower shops.

Pre-packaged cut flowers, priced below \$2.50 and at times as low as \$1, now appear in many retail flower shops. This merchandise receives the special care of the retailer and represents an excellent buy for the consumer. Consumers save money in terms of the costs normally associated with the time of a designer, special wrapping, delivering, and then charging for the merchandise.

A growing number of shoppers now make it a point to regularly visit retailers offering this service to purchase a small bouquet for themselves or a friend.

Consumers often have the opportunity of saving money in terms of taking loose or arranged flowers home, direct to the office, or to a hospital. The merchandise can be charged in

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