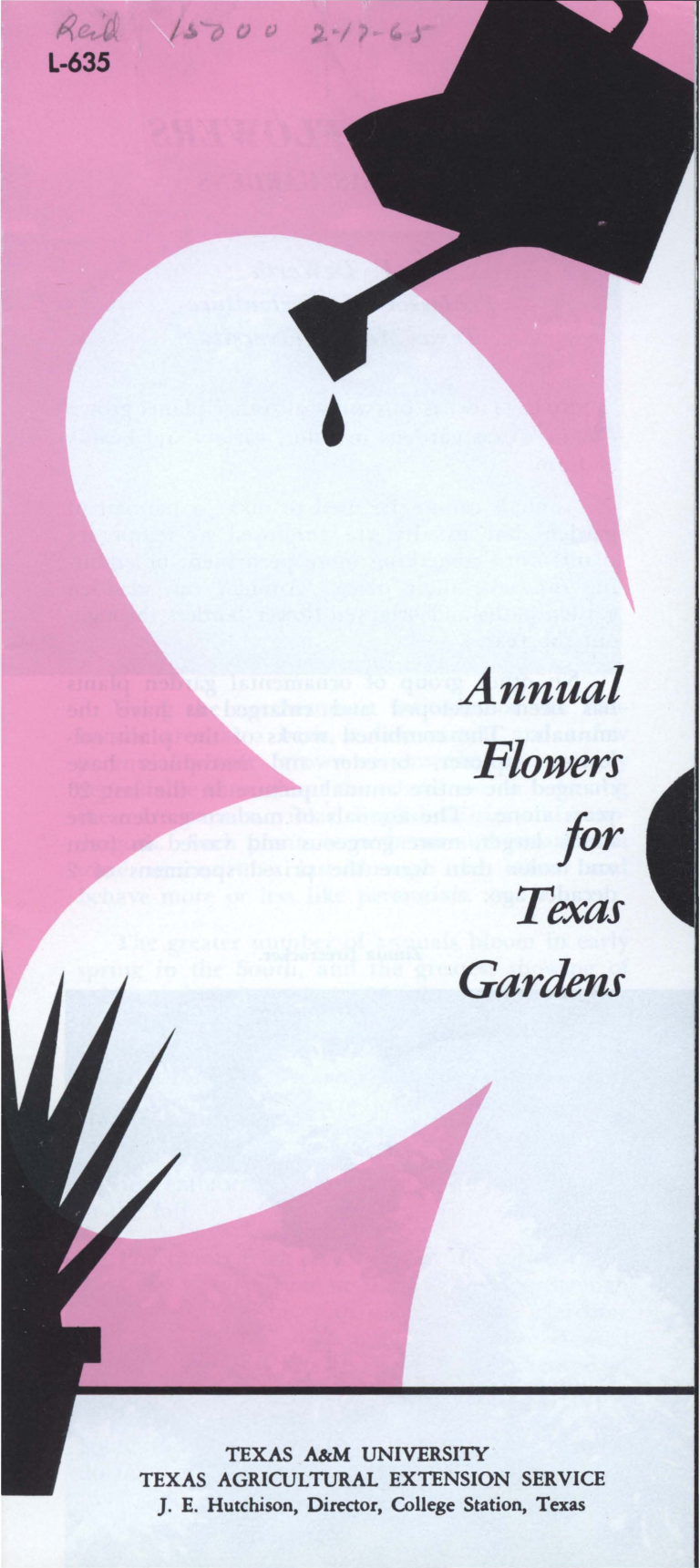


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*Annual
Flowers
for
Texas
Gardens*

TEXAS A&M UNIVERSITY
TEXAS AGRICULTURAL EXTENSION SERVICE
J. E. Hutchison, Director, College Station, Texas

ANNUAL FLOWERS

FOR TEXAS GARDENS

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ANNUAL FLOWERS OUTSHINE all other plants grown in Texas gardens in color, variety and beauty of form.

Annuals cannot be used to make a permanent garden, but usually are employed as temporary plants until something more permanent or enduring can take their place. Annuals can gladden garden paths and brighten flower borders throughout the year.

No other group of ornamental garden plants has been developed and enlarged as have the annuals. The combined works of the plant collector, explorer, breeder and introducer have changed the entire annual picture in the last 20 years alone. The annuals of modern gardens are much larger, more gorgeous and varied in form and color than were the prized specimens of 2 decades ago.

Zinnia firecracker.



Adaptation

Annuals belong to a cool climate, requiring only a few weeks or months to bloom from seed. However, almost any annual may be grown in Texas, since the climatic requirements of many can be met at some time of the year.

In northern states, the annual gardener gives little thought to climatic conditions. He starts his plants in late winter or early spring, if the proper facilities are available. He has them ready to set outside as soon as the danger of late frost is over.

Or, he may buy plants from some grower and begin his garden activities when danger of frost is past. He sometimes prolongs the life of his garden by late summer sowings. He has no thought of special planting or sowing seasons.

However, many Texas gardeners fail to realize that in most areas pansies, English daisies, calendulas, California poppies, stocks and many others grow and flower during the fall and winter months, and that marigolds, periwinkles and zinnias grow and bloom in early summer. Others such as snapdragons, ageratum, petunias and verbena grow and bloom continuously with proper care, except in brief periods of unusual cold.

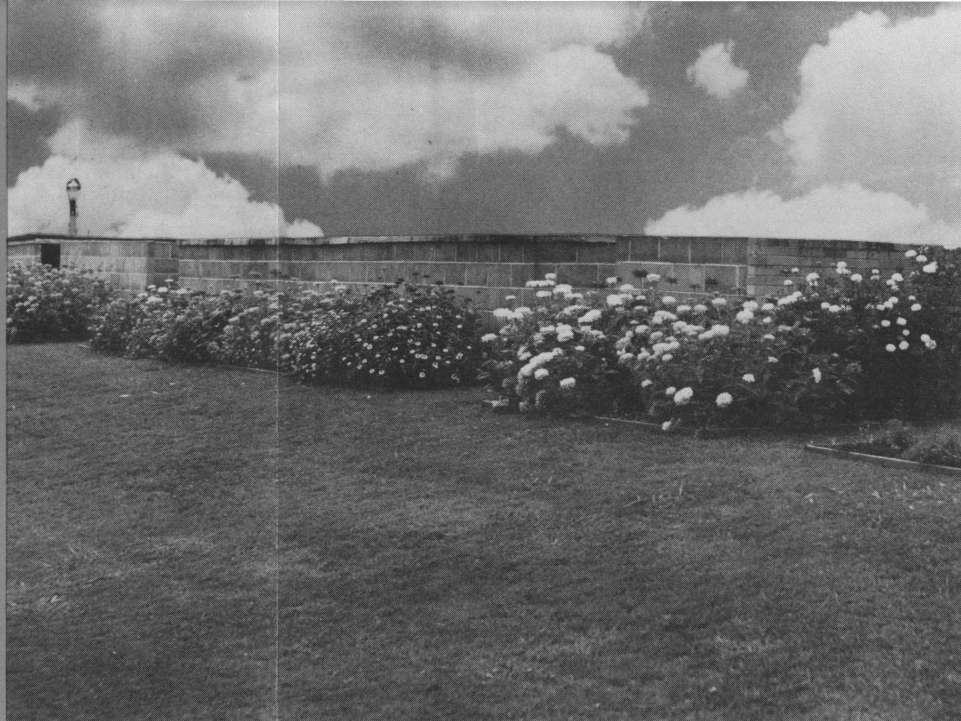
To get full value of annuals as garden flowers in most Texas areas, it is necessary to plan and plant two gardens each year—one in fall and one in spring.

The various regions of the State, extending from the northern Panhandle south to the Rio Grande River Valley and from Texarkana westward to El Paso, make it exceedingly difficult to set a seed sowing date for each locality and for every kind of annual flower.

Climatic factors, therefore, control planting time. The time of the first killing frost in autumn and the last in spring have a direct bearing on growing annual plants and the degree of cold in the winter months also is important. However, conditions in Amarillo differ widely from those in Brownsville.

As a rough guide for starting annuals, two seed sowing lists are given for the central regions of the State; one for September to December, to supply plants for the winter and early-spring garden; the other for February to April, to furnish

Annual flowers in bloom at Texas A&M University.



material for the summer and fall garden. The seasons are not fixed.

In the fall, for instance, if rainfall is light and the season cool, you may sow earlier. When conditions are reversed, delay sowing until October. Excessively hot, moist weather increases the difficulty of germination.

Seed sowing dates in the southern portions of the State are advanced in the fall and retarded in the spring. In certain sections, some plants listed in one group can be transferred to another. In the extreme southern regions, many listed for the summer gardens, such as zinnias, marigolds, cosmos and the like, also can be placed on the winter list, but the entire fall planting list cannot be transferred in total to the spring planting season.

Blooming Season

Extreme weather from one side of the State to the other, prevents sharp lines from being drawn for the flowering periods of annuals; however, the year may be divided into three seasons—winter, spring and summer-autumn. The flowers of one period will merge somewhat with those of another, and allowances must be made for seasonal variations. In normal years, under favorable conditions, flowers of some kind can be obtained at any time in most sections.

Using the northernmost latitudes of the Panhandle area as a basis, a few annual and a few perennial plants (grown as annuals) are entirely dependable throughout the winter season. Among these are pansies, violas, English daisies and snapdragons. Such plants as verbenas and petunias in some seasons may last through the winter and behave more or less like perennials.

The greater number of annuals bloom in early spring in the South, and the greatest showing of colors and varieties is in March, April and May. These plants have developed from seed sown the previous fall and have come through the winter as mere rosettes of leaves, or as small individuals, and have thrown up their flower stems and blooms with the advent of warmer weather. The list, Table 2, is long and with the exception of a few species, embraces all plants of which seed is sown in the fall.

The plants from seed sown in the spring begin to bloom in early June or July, continuing through the summer and into fall until they are overcome by killing frosts. The number is more limited than those which bloom in the spring. Some of those planted in the spring do not bloom during the summer months. Late cosmos and some marigolds, for instance, grow during the summer, but do not bloom until the cooler fall weather.

Table 1. Annuals To Be Sown in the Spring: February to April

Common and scientific name	Germination period (days)	Height (inches)	Spacing (inches)
Arctotis			
<i>Arctotis grandis</i>	15-20	24	12-18
Floss flower			
<i>Ageratum houstonianum</i>	8-12	6-24	6-9
China aster			
<i>Callistephus chinensis</i>	8-10	24	12
Moonflower			
* <i>Calonyction aculeatum</i>	5-8	120-240	10
Feather cockscomb			
<i>Celosia argentea</i>	20-25	24	24
Spiderflower			
<i>Cleome spinosa</i>	10	36	24
Cosmos			
<i>Cosmos bipinnatus</i>	5-15	36-72	24-36
Golden cosmos			
<i>Cosmos sulphureus</i>	5-15	36-72	24-36
Globeamaranth			
<i>Gomphrena globosa</i>	20-25	12-24	6-8
Sunflower			
<i>Helianthus annuus</i>	15-20	39-36	24
Balsam			
<i>Impatiens balsamina</i>	10-12	18-24	12-18
Sultan snapweed			
<i>Impatiens sultani</i>	8-12	24-36	18
Morning glory			
* <i>Ipomoea purpurea</i>	5-8	180	10-12
Summercypress			
<i>Kochia scoparia</i>	15-18	36	12-18
Four o'clock			
<i>Mirabilis jalapa</i>	12-15	18-24	24-30
Petunia			
<i>Petunia hybrida</i>	18-20	12-24	9-12
Portulaca			
<i>Portulaca grandiflora</i>	18-20	6	4
Cypressvine starglory			
* <i>Quamoclit pinnata</i>	10-15	180-300	8-12
Castorbean			
<i>Ricinus communis</i>	15-20	36-144	24
Scarlet sage			
<i>Salvia splendens</i>	15-25	24-36	12-18
Sweet scabious			
<i>Scabiosa atropurpurea</i>	18-20	24-30	8
Aztec marigold			
<i>Tagetes erecta</i>	5-8	30	18
French marigold			
<i>Tagetes patula</i>	5-8	12	18
Blackeyed clockvine			
* <i>Thunbergia alata</i>	8-10	72-96	6-8
Blue torenia			
<i>Torenia fournieri</i>	18-20	8-12	6-8
Verbena			
<i>Verbena hybrida</i>	8-10	12	12
Periwinkle			
<i>Lochnera rosea</i>	30-35	12-24	10-12
Zinnia			
<i>Zinnia elegans</i>	5-8	12-36	12

*Indicates vines.

Table 2. Annuals To Be Sown in the Fall: September to December

Common and scientific name	Germination period (days)	Height (inches)	Spacing (inches)
Bugloss <i>Anchusa capensis</i>	15-20	12-18	8-12
Mexican poppy <i>Argemone mexicana</i>	20-25	24-36	6-8
Snapdragon <i>Antirrhinum majus</i>	20-25	12-36	12
Swanriver daisy <i>Brachycome iberidifolia</i>	20-25	10	5-6
Browallia <i>Browallia speciosa</i>	18-20	18	3-6
Calendula <i>Calendula officinalis</i>	10-12	30	12-18
Cornflower <i>Centaurea cyanus</i>	5-20	30	6
Sweet sultan <i>Centaurea moschata</i>	5-20	24-36	8-12
Clarkia <i>Clarkia elegans</i>	8-10	30	6-10
Leptosyne <i>Coreopsis stillmani</i>	8-10	24	10-12
Calliopsis <i>Coreopsis tinctoria</i>	10-12	36	12-18
Rocket larkspur <i>Delphinium ajacis</i>	15-20	24	8-12
Pinks <i>Dianthus plumarius</i>	5-8	12	8-12
Winter marigold <i>Dimorphotheca aurantiaca</i>	15-20	12	8-10
California poppy <i>Eschscholtzia californica</i>	5-10	12	8
Gaillardia <i>Gaillardia pulchella</i> var. <i>picta</i>	12-15	18-24	12
Godetia <i>Godetia amoena</i>	10-25	12-24	12
Babysbreath <i>Gypsophila paniculata</i>	15-20	18-24	8-12
Strawflower <i>Helichrysum bracteatum</i>	5-10	24-30	12
Rose sunray <i>Helipterum roseum</i>	8-10	18	6-8
Goldencup <i>Hunnemannia fumariaefolia</i>	10-12	24	8-10
Rocket candytuft <i>Iberis amara</i>	5-8	12-18	6-8
Globe candytuft <i>Iberis umbellata</i>	5-8	12-18	6-8

Common and scientific name	Germination period (days)	Height (inches)	Spacing (inches)
Sweetpea <i>Lathyrus odoratus</i>	15-20	36-72	3-6
Toadflax <i>Linaria bipartita</i>	8-10	12	8-12
Sweet alyssum <i>Lobularia maritima</i>	18-20	8-12	6-8
Lupine <i>Lupinus pubescens</i>	25-30	24-36	12
Annual stock <i>Mathiola incana</i> var. <i>annua</i>	10-15	12-18	12
Virginia stock <i>Mathiola maritima</i>	10-15	6-8	8
Forget-me-not <i>Mysotis sylvatica</i>	15-20	12	6
Baby-blue-eyes <i>Nemophila menziesii</i>	6-8	6-12	6
Flowering tobacco <i>Nicotiana glauca</i> var. <i>grandiflora</i>	20-25	36	24
Love-in-a-mist <i>Nigella damascena</i>	10-15	18	8-12
Evening primrose <i>Oenothera speciosa</i>	10-25	12-24	8-12
Shirley poppy <i>Papaver rhoeas</i>	15-20	24-36	6-8
Petunia <i>Petunia hybrida</i>	18-20	8-12	9
Annual phlox <i>Phlox drummondii</i>	20-25	12-18	8
Mignonette <i>Resedra odorata</i>	8-10	18	8
Pincushionflower <i>Scabiosa atropurpurea</i>	18-20	24-30	8
Butterflyflower <i>Schizanthus pinnatus</i>	20-25	24	18
Blue laceflower <i>Trachymene coerulea</i>	8-10	24	12
Nasturtium <i>Tropaeolum majus</i>	8-15	6-120	12
Pansy <i>Viola tricolor</i>	8-10	6	4-6
Verbena <i>Verbena hybrida</i>	8-10	12	12

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