

# Regional Roundup

## Pansies: Winter Annuals For The Spring Garden

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Pansies have provided a beautiful spring floral display in the University of Kentucky trial gardens for the past three years. The pansies were planted into the garden in early fall. Flowering began in March or early April and the plants produced 35 to 50 flowers at one time throughout May. Pansies planted in the fall and overwintered were twice as large as pansies planted in the spring.

The garden pansy (*Viola X wittrockiana*) is a cool season annual or short-lived perennial garden flower. Traditional cultural techniques described in publications such as Hortus III or U.S.D.A. Home and Garden Bulletin G-149 "Growing Pansies," refer to the use of pansies during the cool temperatures in fall and spring. Home gardeners are advised to sow pansy seed outdoors in mid-summer. The plants then grow during the fall, over-winter and flower normally in the spring. However, home gardeners rarely grow pansies from seed; instead they purchase pansies as spring transplants. Pansies sold as spring transplants are quite successful in gardens in cooler climates around the Great Lakes, the Northeast or Northwest. But summer comes much too early for spring pansy transplants in the mid-South and South. Pansies transplanted as early as possible in late winter or early spring grow vigorously for only a short time. Flower size soon is reduced and finally the plants die because of the warm June weather.

In an effort to learn how to use pansies wisely in the mid-South, (Hardiness Zones 6, 7, and 8) (Figure 1) trials were begun at the University of Kentucky College of Agriculture's Landscape Garden Center in 1979 and continued to June 1981. These trials compared the growth, hardiness, and flowering of over fifty cultivars of pansies when grown as winter annuals.

### Results of Trials

Pansies are winter hardy in the mid-South. A recent seed catalog mentions that pansies are "tough enough to tolerate a little frost." Indeed, pansy flowers are not damaged until temperatures go below 15°F (-10°C). Flowers were observed to close and bend downward at temperatures just above 15°F; these flowers opened normally when temperatures increased. Some foliage is damaged by temperatures less than 10°F and most is killed at 0°F.

Terminal portions of stems were also damaged by 10°F temperatures but basal portions of the stems were hardy to temperatures of -15°F (-23°C), the coldest temperatures to occur in Lexington during the three-year trials. Hardiness was similar for plants grown on bare soil, black plastic mulch or with a light straw mulch, regardless of the presence or absence of snow. The earliest growth and flowering occurred on plants grown on black plastic mulch.

Pansies began to flower March 10th to April 1st, depending on spring weather, and continued to flower through June. Pansies reached their peak when tulips normally open, April 15 to May 10 in Lexington, and individual plants

were 10-15 inches across with 30 to 50 flowers at any one time (Figure 2).

Flower size started to decrease in early June and plants continued to deteriorate throughout June because of hot temperatures and less rainfall. Pansies were nearly dead by July 1, even when irrigated. Pansies planted in the spring tolerated the summer heat better than pansies planted in the fall, but their floral display was mediocre compared to pansies planted in the fall.

Cultivars of pansies were judged for overall floral display and hardiness (Table 1). Plants were rated visually for plant vigor and flower production in the fall after planting (November



Figure 1. Pansies are sufficiently hardy to be grown as fall planted annuals throughout the U.S. south and west of the heavy line [U.S.D.A. hardiness zones 6-10].



Figure 2. A compact, multi-branched pansy plant in early May is typical of fall planted pansies in the mid-south.

Table 1. Overall Floral Display and Hardiness Rankings of Pansy Cultivars<sup>z</sup>  
Grown as Winter Annuals in 1980 and 1981 at the University of  
Kentucky, Lexington, Ky.

THE BEST CULTIVARS

Paramount Pure Yellow F <sub>1</sub> '80, '81	Golden Chief F <sub>1</sub> '80, '81
Hiverna Choice Mix '80, '81	Yellow Chief F <sub>1</sub> '80, '81
Hiverna Yellow with Eye '81	Universal Mix '81
Hiverna White with Eye '81	Azure Blue '81
Early Alaska Formula Mix '80, '81	Butterfly Mix '80, '81
Early Alaska Golden Yellow '81	Angel Breath F <sub>1</sub> '80
Early Alaska Golden Yellow with Eye '81	Yellow with Blotch F <sub>1</sub> '80
Sunny Boy F <sub>1</sub> '80, '81	Monarch Mix (Viola cornuta) '81
Sunny Gold F <sub>1</sub> '80, '81	Giant Winterblooming Ice Pansy '81

GOOD CULTIVARS

Blue Boy '80, '81	Forerunner Mix, Winter Blooming Giant '81
Westland's Giants Special Florist Strain '80, '81	Swiss Giants Lake of Thun '81
Steele's Jumbo Mix '80, '81	Coronation Gold '81
Steele's Jumbo Moon Moth '80	Roggli's Genuine Original Swiss Giant Eiger (Yellow) '81
Steele's Jumbo Paydirt '81	Hohenfeuer (Orange) '81
Moody Blues '81	
Majestic Giant Mix '81	

OTHER CULTIVARS

Orange Prince '80, '81	Saint Tropez Mix F <sub>2</sub> '80
Raspberry Rose F <sub>1</sub> '80	Rose Chief '80, '81
Red F <sub>1</sub> '80	Masterpiece Mix '81
Kingsize Mix (World's Fair) '80	Jumbo Sunset Mix '81
Swiss Giant Ullswater (Blue) '81	Roggli Elite Mix '81
Picotée Titania '81	Alpenglow Swiss '81
Dream Giant Blue Dream '81	Clear Crystals Mix '81
Swiss Giant Mix '81	Majestic Giants Scarlet and Bronze Shades '81
Goldsmith Giant '81	Mammoth Giant Mix '81
Red Chief '80, '81	Giant Winterblooming Climbing Pansy '81
Trimardeau Mix '80	
Postillon Formula Mix '80	

<sup>z</sup> The following seed companies donated seed for these trials: 1) Ball Seed Company, West Chicago, IL 2) Burpee Seeds, Philadelphia, PA 3) H.G. German Seeds, Smethport, PA 4) Park Seeds, Greenwood, SC 5) Royal Sluis, Enkhuizen, Holland 6) Sluis & Groot, Enkhuizen, Holland 7) Vaughan-Jacklin, Downers Grove, IL.

15) and in the spring on April 10, May 1 and May 20. The best cultivars had 80% to 100% survival both winters. In general, the yellow and blue pansy cultivars rated higher than the red, rose, orange, and bronze cultivars. Yellow and blue individuals in a mixture or yellow and blue lines in a cultivar series generally performed better, as well, although no specific reason was evident. Flowering of 'Hiverna' and 'Early Alaska' pansies began earlier than other cultivars.

### Considerations for Pansy Production

Pansies grown as winter annuals in the Lexington area (U.S.D.A. Hardiness Zone 6b) should be transplanted to the beds by early October. Therefore, transplant production should begin by sowing seed in early July. The seeds should be germinated at 65°-70°F. In 3 to 4 weeks the seedlings can be transplanted to cell paks. Plants could be grown in the greenhouse but it may be similar and cheaper to grow the transplants outdoors under light shade during the summer. The plants will be ready to sell in September. Standard watering, fertilization and pest control practices should be used during production.

### Observations on Pansy Growth and Advice for Home Gardeners

A colorful floral display in the spring garden generally includes, and is often limited to, spring flowering bulbs such as tulips, daffodils, crocus, etc. Yet pansies can provide an equally spectacular display. Pansies are well adapted to survive the cool spring weather and are suitable for commercial plantings as well as for special spring occasions. Pansies provide color and color combinations not found in other spring flowers and will remain attractive the whole spring season.

Pansies prefer a full sun location in the garden. Plants flower in the fall until Christmas and begin to flower in early March if they are planted in a protected southern exposure. Plants in partial or full shade performed poorly in spring but flowered throughout the summer. It seems unnecessary to remove dead pansy blossoms in early spring to stimulate flowering. In our studies, pansies flowered regularly in the fall and spring even though old flowers were not pruned. Evidently, pollinating insects do not cause enough seed set in April and May to reduce flowering.