



## Season Extenders in the Flower Garden

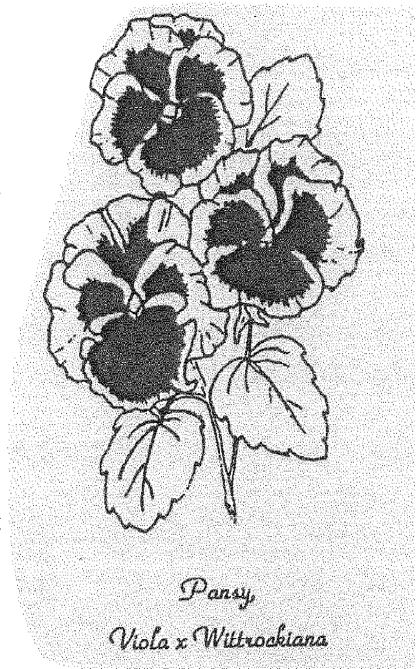
by

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No one gardening in Alaska needs to be reminded that the growing season is very short, especially after the summer of 1992 when the frost-free season at the Garden extended only from May 16 to September 10, and the snow-free season was the shortest ever recorded. Every year we survey the Garden after our first hard frost to identify flowers that still look good and can provide a bit of color even as the days get shorter and we begin to anticipate the first snowfall. On the following page is a list of annuals and perennials that survived the first severe frost on September 10 with an overnight low of 13°F (-10°C). In some instances, only the foliage survived, but they still provided a bit of green color at season's end. Prior to September 10, temperatures at or slightly below 32°F (0°C) were recorded on three dates, but damage was negligible. Although the flower beds are located fairly close together on a gently sloping hillside, we noticed some differences in damage in the various beds. Flowers in one bed survived the frost, whereas plants of the same species in an adjacent bed were killed. This may be related to differences in cultivars since we did not repeat cultivars in different beds, but it also could be related to slight differences in microclimate from one bed to another.

Some flowers, such as the stocks (*Matthiola incana*) and some of the early-blooming snapdragons (*Antirrhinum majus*), showed little damage from frost, but still did not have an attractive late season show. These plants produce flowers on stems called a raceme. The flowers at the base of the raceme bloom first, and as the season progresses, flowering continues toward the tip of the raceme. Older blossoms either drop off or mature into a seed pod. Stocks produce long, thick, green seed pods called siliques that are not very showy. Only a few tiny flowers at the tip of the raceme remain in bloom at the end of the growing season.

The annual flower seed mixes also had a few flowers that survived the hard frost. Most notable among them were the clarkia (*Clarkia unguiculata*), bishop's flower (*Ammi majus*), toadflax or spurred snapdragon (*Linaria maroccana*), Virginia stock (*Malcomia maritima*) and sweet alyssum (*Lobularia maritima*). In some beds, the bachelor's buttons (*Centaurea cyaneus*) and baby blue-eyes (*Nemophila menziesii*) survived. The brilliant white petals of German chamomile (*Matricaria camomila*) showed severe frost damage and were flattened against the stem, but the yellow, central disc flowers appeared untouched. We will continue evaluations in 1993 and attempt to develop a seed mix that provides the longest possible flowering period for Alaska's short season.



### FROST-TOLERANT ANNUALS (\* means foliage only)

Sweet alyssum (*Lobularia maritima*) 'Golf Pastel Mix', 'Snow Cloth Select', 'Carpet of Snow'

Carnation (*Dianthus caryophyllus*) 'Knight Mix', 'Scarlet Luminette'

Dianthus (*Dianthus chinensis*) 'Ideal Violet', 'Pink Charm', 'Princess Crimson\*', 'Princess Mix', 'Raspberry Parfait\*', 'Telstar Picotee', 'Telstar Mix', 'White Charm', 'Ideal Rose'

Dusty Miller (*Senecio cineraria*)\* 'Cirrus'. 'Silver Dust'

Flowering Kale\* (*Brassica oleracea Acephala Group*) 'Chidori Red', 'Kamome White', 'Red Sparrow', 'White Peacock'

Linaria (*Linaria maroccana*) 'Fairy Bouquet'

Lupine (*Lupinus polyphyllus*) 'Gallery Mix', 'Russell Mix'

Nicotiana (*Nicotiana glauca*) 'Starship Red'  
 Pansy (*Viola X Wittrockiana*) 'Crown Cream', 'Crown Mix', 'Crown Rose', 'Imperial Silver Princess', 'Maxima Marina',  
 'Springtime Azure Blue', 'Water Color Mix'  
 Petunia (*Petunia X hybrida*)\* 'Polo Salmon', 'Primetime Burgundy', 'Prism Coral', 'Rose Madness', 'Celebrity Pink  
 Morn'\*  
 Phlox (*Phlox drummondii*) 'Dwarf Varieties Finest Mix', 'Grandiflora Choice Finest Mix'\* , 'Palona Deep Rose'\* ,  
 'Promise Pink'  
 Rudbeckia (*Rudbeckia hirta*) 'Nutmeg'\*  
 Mealycup sage (*Salvia farinacea*) 'Silver Sunshine' \* , 'Victoria'  
 Shasta daisy (*Chrysanthemum X superbum*) 'Snow Lady'  
 Snapdragon (*Antirrhinum majus*) 'Cinderella Mix', 'Frosty Rose Pink' 'Kim Mixture', 'Rocket Cherry', 'Rocket Lemon',  
 'Rocket Orchid', 'Rocket Redstone', 'Sonnet Burgundy', 'Tahiti Appleblossom '\* , 'Tahiti Mix'  
 Stock (*Matthiola incana*) 'Cinderella Dark Blue'  
 Verbena (*Verbena X hybrida*) 'Amour Mix'\* , 'Blue Lagoon' 'Novalis Mix' Vinca (*Catharanthus roseus*) 'Pretty in  
 White'\*

**FROST-TOLERANT PERENNIALS (\*means foliage only)**

Argentine anemone (*Anemone multifida*)\*  
 Arnica (*Arnica lessingii*)  
 Cow parsnip (*Heracleum Sphondylium subsp. montanum*)\*  
 Chinese Pinks (*Dianthus chinensis*)  
 Delphinium (*Delphinium laxiflorum*)  
 False spiraea (*Sorbaria sorbifolia*)  
 Gentian (*Gentiana Freyniana*)  
 Nodding onion (*Allium cernuum*)  
 Siberian larkspur (*Delphinium grandiflorum*)  
 Snow-in-summer (*Cerastium tomentosum*)\*  
*Stellaria monantha*\*  
 Tansy (*Tanacetum vulgare*)  
 Three-toothed cinquefoil (*Potentilla tridentata*)  
 Woolly Speedwell (*Veronica incana*)  
 Yarrow (*Achillea millefolium*) 'Summer Pastels'  
 Yarrow (*Achillea borealis*)  
 Yellow hawkweed (*Hieracium umbellatum*)

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