
**Seed Starting Chart for Annual Flowers and Perennials Grown as Annuals at the
Georgeson Botanical Garden**
by Grant Matheke and Pat Holloway

This list has been developed over many years as a guide for seed germination of flowers we have grown at the Georgeson Botanical Garden. The chart includes all flowers grown as annuals, including some popular perennials. These guidelines have been refined to adjust to our unique conditions in the greenhouse and in the garden. Your own growing conditions, especially light levels and temperature will be unique. Use this information as a starting point for your own list and take notes on germination rates and times to determine appropriate timing for your conditions. Plants that are too large at transplanting suffer greatly from transplant shock and those that are too small may not produce the plant you are hoping for. The calendar is timed for a outdoor planting date of June 1.

Growing seedlings in the greenhouse or indoors is usually a two-stage process, sowing and transplanting. For most flowers, we sow seeds into 4-inch pots (up to 50 seeds per pot depending on the size of the seed) or sow them singly into plug trays containing a very fine, sterile, peat-lite seed starting mix. We use additional seed starting mix or fine, horticultural grade vermiculite to cover seeds except those requiring light, so they are surrounded by moisture. We moisten the mix, cover the pots with clear plastic, and germinate them beneath lights with a thermostat-controlled heating mat beneath the pots to provide the optimum temperature. One pot holds a thermometer so we are measuring the medium temperature, not the air temperature. You can grow seedlings in cool rooms as long as the medium temperature is optimum.

As soon as seedlings are large enough to handle, we allow the peat-lite mix to dry a bit then gently tease the seedlings apart and transplant them into cell packs or larger pots using a coarse, peat-lite growing mix. The fine seed starting mix provides the best medium for germination of seeds but is too fine for continued growth. Seedlings easily rot if kept in this mix too long. Some seedlings do not tolerate transplanting, so we have a one-stage procedure. We skip the seed starting mix and sow them directly in cell packs using the growing mix. They include poppies, California poppy and others listed. All seedlings are grown in a well-lighted cool greenhouse, approximate minimum temperature 60-65F, until ready to move outdoors.

One week before the planting date, we begin hardening off the seedlings. Hardening is a process of gradually exposing the seedlings to strong outdoor sunlight and cool temperatures. We set the flats outdoors for 1 hour on the first day, 2 hours, the second, then 4, 6, 8 and 10 hours on subsequent days. After that, the seedlings stay outdoors until transplanting into the garden.

Seed-ing Date	Common Name	Species	Temp (F)	Cover Seeds?	Light	Days	COMMENTS
3-Jan	Begonia, Tuberous	<i>Begonia x tuberhybrida</i>	70-72	n	light	15-30	Germinate in mist bed or high humidity, grow cool; use pelleted seeds if possible
16-Jan	Alternan-thera Joseph's coat	<i>Alternanthera ficoidea</i>	72-76	y-slight	light		Cover with vermiculate
16-Jan	Coleus	<i>Solenostemon scutellarioides</i>	70-75	n	light	10-15	
16-Jan	Hibiscus	<i>Hibiscus sp.</i>	70-72	y		7-10	Transplant to 2 inch pots
16-Jan	Laurentia	<i>Laurentia sp.</i>	70-72	y-slight		5-8	Grow on cool, transplant to 3 inch pots
23-Jan	Alstroemeria	<i>Alstroemeria x hybrida</i>	72-75	y		21-28	
23-Jan	Begonia, Fibrous Rooted	<i>B. x semperflorens-cultorum</i>	78-80	n		15-20	bottom water
23-Jan	Pentas	<i>Pentas lanceolata</i>	70-72	n		5-12	Keep warm after germination, slow to grow after germination
6-Feb	Flax	<i>Linum perenne</i>	70-73	y		4-8	grow on at 50-55 F
13-Feb	Linanthus	<i>Linanthus androsaceus</i>	59-68	y-slight	light	14-21	
13-Feb	White Sun-Drop	<i>Oenothera speciosa</i>	70-80	y-slight		8-15	Transplant to 3 inch pots
20-Feb	Calceolaria, Slipper Flower	<i>Calceolaria mexicana</i>	55-60	n		10-15	Transplant to 2 inch pots
27-Feb	Angelonia	<i>Angelonia angustifolia</i>	72-76	n	light	5-6	Grow on dry side
27-Feb	Canna	<i>Canna spp.</i>	70-75	1/4"		10-15	Grow warm
27-Feb	Chiastophyllum	<i>Chiastophyllum oppositifolium</i>	68-72	n		28	Sow in July for sale following June
27-Feb	Dichondra	<i>Dichondra argentea</i>	70-72	y-slight		5-10	
27-Feb	Geranium	<i>Pelargonium x hortorum</i>	75	y - 1/8"		5-15	
27-Feb	Gerbera	<i>Gerbera jamesonii</i>	68-72	y		10-14	
27-Feb	Lisianthus	<i>Eustoma grandiflora</i>	75	n		10-20	

27-Feb	Maskflower	<i>Alonosa warscewiczii</i>	68-70	slight		5-8	pinch
27-Feb	Penstemon	<i>Penstemon sp.</i>	65-68			7-14	
27-Feb	Sphaeralcea	<i>Sphaeralcea incana</i>	65-70	y		21-60	
27-Feb	Turtlehead	<i>Chelone glabra</i>	70	y		21-28	
27-Feb	Verbascum	<i>Verbascum bombyciferum</i>	65-68	n	light	5-7	
5-Mar	Balloon Cottonbush	<i>Gomphocarums physocarpus</i>	70-75	y-slight	light	14-21	Transplant to 3 inch pots
5-Mar	Schizopetalon	<i>Schizopetalon walkeri</i>	59-64	y - slight		7-14	Sow in plugs or cell packs, transplant to 2 inch pots
12-Mar	Asclepias	<i>curassavica</i>	65-70	n		14-21	
12-Mar	Bellis, English Daisy	<i>Bellis perennis</i>	70-75	n		7-14	
12-Mar	Calandrinia	<i>Calandrinia grandiflora</i>	65	n		10	
12-Mar	Carnation	<i>Dianthus caryophyllus</i>	65-70	n		14-21	Grow on at 50/55 F
12-Mar	Carpanthea	<i>Carpanthea pomeridiana</i>	70-75				
12-Mar	Chocolate flower	<i>Berlandiera lyrata</i>	60-71	slight	light	30-90	Cover w vermiculite
12-Mar	Cuphea (Cigar Plant)	<i>Cuphea ignea, minuata</i>	70-75	c lt.	light	12-15	Transplant to 3 inch pots
12-Mar	European Meadow Rush	<i>Juncus inflexus</i>	64-75	n	light	12	Transplant to 3 inch pots
12-Mar	Foxglove, digitalis	<i>Digitalis purpurea</i>	60-65	y		15-20	Transplant to 3 inch pots
12-Mar	Hollyhock (not Zebrina)	<i>Althea rosea</i>	70	sl	light	10-14	
12-Mar	Koeleria	<i>Koeleria glauca</i>	64-75	n	light	4-5	Transplant to 3 inch pots
12-Mar	Licorice Plant	<i>Helichrysum petiolare</i>	70-75	n	light	7-14	
12-Mar	Osteopermum	<i>Osteospermum sp.</i>	70	y-slight		7-10	
12-Mar	Rhodochiton, Purple Bell Vine	<i>Rhodochiton atrosanguineum</i>	70			5-10	Transplant to 3 inch pots, needs bamboo staking to prevent a tangled mess
12-Mar	Salvia Mealy Cup-type	<i>Salvia farinacea</i>	75-78	sl	light	12-15	

12-Mar	Spilanthes, Eyeball plant	<i>Spilanthes acmelia</i>	72-76	y-slight	light	4	Cover with ver- miculate
19-Mar	Anchusa	<i>Anchusa azurea</i>	70-72	y-slight		5-10	
19-Mar	Arctotis , Blue Eyed Daisy	<i>Arctotis spp.</i>	70-72	y		4-8	
19-Mar	Astrantia	<i>Astrantia major</i>	55-65	n	light	30-60	Cold stratify 4 weeks
19-Mar	Bishop's Flower	<i>Ammi majus</i>	68-70	y	slight	7-14	sow direct to cell packs, 2 seed/cell
19-Mar	Bisnaga	<i>Ammi visnaga</i>	68-70	y	slight	7-14	sow direct to cell packs, 2 seed/cell
19-Mar	Catanan- che Cupid's dart	<i>Catanache caerulea</i>	65-75	y		21-25	
19-Mar	Corn Pars- ley	<i>Ridolphia sege- tum</i>	68-70	y	slight	7-14	sow direct to Transplant to cell packss, 2 seed/ cell
19-Mar	Drumstick Flower	<i>Craspeda globosa</i>	70-75	y		14-18	Transplant to 3 inch pots
19-Mar	Dusty Miller	<i>C. ptarmiciflo- rum</i>	72-75	n		10-15	
19-Mar	Feather Grass	<i>Stipa sp.</i>	64-75	n	light	4-5	Transplant to 3 inch pots
19-Mar	Heliotrope	<i>Heliotropium arborescens</i>	70	y		21-25	
19-Mar	Polka dot plant	<i>Hypoestes phyllostachya</i>	70-75	lightly		7-10	
19-Mar	Incarvillea	<i>Incarvillea delavayi</i>	70-75	slight		4-8	
19-Mar	Japanese Thistle (Plume Thistle)	<i>Cirsium japoni- cum</i>	68-72	y slight		7-14	
19-Mar	Juncus pal- lidus	<i>Juncus pallidus</i>	64-75	n	light	5-6	Transplant to 3 inch pots
19-Mar	Kiss Me Over the Garden Gate	<i>Polygonum orientale</i>	70-75	y		?	Transplant to 3 inch pots
19-Mar	Lobelia, Great Blue	<i>Lobelia siph- ilitica</i>	75	n		7-49	Treat with 24 hr soak, GA 3, some say cold stratify 60d to get germi- nation
19-Mar	Lupine	<i>Lupinus sp.</i>	65-75	y		15-20	
19-Mar	Opal Cups	<i>Anoda cristata</i>	70-72	y		3-7	
19-Mar	Nemophila	<i>Nemophila menziesii</i>	65	y		10-14	

19-Mar	Nierembergia	<i>Nierembergia scoparia</i>	70-75	y		15-20	
19-Mar	Oxypetalum	<i>Oxypetalum caeruleum</i>	70	n	light	5-8	High light, long day lengths (20 hr)
19-Mar	Portulaca	<i>Portulaca grandiflora</i>	80-85	y		10-15	Transplant in clumps of 3
19-Mar	Shasta Daisy	<i>Leucanthemum x superbum</i>	70-75	sl	light	10-14	
19-Mar	White Lace Flower	<i>Orlaya grandiflora</i>	68	y		15-20	
21-Mar	Agastache, Mosquito Plant	<i>Agastache cana</i>	55	y - 1/16"		4-8	
21-Mar	Amaranth	<i>Amaranthus caudatus, tricolor</i>	70	y-slight		10	
21-Mar	Asarina, Creeping Gloxinia	<i>Lophospermum erubescens</i>	70	n	light	5-8	Needs separation, vining habit
21-Mar	Cheiranthus, Wallflower	<i>Cheiranthus allionii</i>	55-65	y		7-10	
21-Mar	Dahlberg Daisy	<i>Dyssodia tenuiloba</i>	65-70	n		10-15	
21-Mar	Dusty Miller	<i>Senecio cineraria</i>	72-75	n		10-15	
21-Mar	Erysimum Wallflower	<i>Erysimum spp.</i>	68-72	y		2-4	
21-Mar	Evening Primrose	<i>Oenothera spp.</i>	68-86	n		15-20	
21-Mar	Feather Amaranth	<i>Amaranthus paniculatus</i>	70	y-slight		10	
21-Mar	Livingstone Daisy	<i>Mesembryanthemum sp.</i>	65-75	n-dark		15-20	
21-Mar	Pigs Ears	<i>Cotyledon orbicualta</i>	70			<20	
21-Mar	Mexican Hat Plant	<i>Ratibida columnifera</i>	70-75	y 1/8"		21-45	Reduce temp at night
21-Mar	Rudbeckia, black-eyed Susan	<i>Rudbeckia hirta</i>	70-75	y		5-10	
21-Mar	Salpiglossis, Painted Tongue	<i>Salpiglossis sinuata</i>	70-75	n	dark	15-20	
21-Mar	Santolina	<i>Santolina chamaecyparissus</i>	65-75	y - slight		15-20	
21-Mar	Verbena, tall	<i>Verbena bonariensis</i>	75	y-slight		5-10	Chill seed (dry) 1 wk, low germ

21-Mar	Verbena, Garden	<i>Verbena x hybrida</i>	75-80	y-slight		10-20	Chill seed (dry) 1 wk
21-Mar	Verbena, Moss	<i>Verbena erinoi- des</i>	70-75	y-slight		14-21	Germ on dry side, more water later
26-Mar	Snow on the Mountain	<i>Euphorbia marginata</i>	65-70	y		15-20	
26-Mar	Basket- flower	<i>Centaurea americana</i>	65	slight		3-8	Sow 4 seeds per 3 inch pot, thin to 1
26-Mar	Burridge greenthread	<i>Cosmidium burridgeanum</i>	59-68	y slight	light	7-14	
26-Mar	Chrysan- themum Tricolor	<i>Chrysanthe- mum carinatum</i>	68-70	y		10-	Transplant to 3 inch pots
26-Mar	Coneflower	<i>Echinacea purpurea</i>	65-70	y	slight	10-15	
26-Mar	Erigeron 'Spanish Daisy'	<i>Erigeron karvinskianus</i>	70-72	n	light	5-10	Transplant to 2 inch pots
26-Mar	California Poppy	<i>Eschscholzia californica</i>	72	slight		6-8	Sow direct to plug tray or direct sow in fall or spring
26-Mar	Flowering Flax	<i>Linum grandif- lorum</i>	68-70	no cover	light	4-8	Grow on at 50- 55
26-Mar	Gazania	<i>Gazania rigens</i>	70	y	dark	8-14	
26-Mar	Heliopsis	<i>Heliopsis heli- anthoides</i>	65-70	y slight	light	3-10	
26-Mar	Impatiens	<i>Impatiens wallerana</i>	75-78	y-slight	light	15-20	
26-Mar	Impatiens Balsam	<i>Impatiens bal- samina</i>	70	y-slight	light	8-10	
26-Mar	Palafoxia	<i>Palafoxia texana</i>	59-68	n	light	14-21	Transplant to 3 inch pots
26-Mar	Pansy	<i>Viola x Wit- trockiana</i>	65-75	y	dark	10-20	
26-Mar	Plectran- thus	<i>Plectrntus argentatus</i>	68-76	n	light	5-7	
26-Mar	Viola	<i>Viola sp.</i>	65-75	y	dark	10-20	
2-Apr	Adonis (Pheasant's Eye)	<i>Adonis annua</i>	65				
2-Apr	African Dai- sy (Dimor- phototheca, Osteosper- mum)	<i>Dimorphothea auriantiaica</i>	60-70	y		10-15	
2-Apr	Ageratum	<i>Ageratum houstonianum</i>	78-82	n	light	8-10	

2-Apr	Amberboa	<i>Amberboa muricata</i>	65-70	y-slight		7-14	
2-Apr	Winged everlasting, Ammobium	<i>Ammobium alatum</i>	68-75	y			
2-Apr	Anagallis Flaxleaf Pimpernel	<i>Anagallis Monelli</i>	70-72	y-slight		6-10	
2-Apr	African daisy, Arc-totis	<i>Arctotis grandis</i>	60-70	y		21-35	
2-Apr	Armeria	<i>Armeria mari-tima</i>	60-70	y-slight		14-21	
2-Apr	Blue wood-ruff	<i>Asperula azurea</i>	65	y 1/16"	light	7-21	
2-Apr	Bachelor's Button Centaurea	<i>Centaurea cyanus</i>	65-70	lightly		7-14	grow on cool
2-Apr	Bacopa	<i>Sutera cordata</i>	68-74	n		4-8	surface seed multi seed pellets
2-Apr	Bidens	<i>Bidens ferulae-folia</i>	68	y	dark		pinch
2-Apr	Blue Lace Flower	<i>Trachymene coerulea</i>		y	dark		
2-Apr	Blue Spiderwort	<i>Commelina coelestis</i>	68	n		7-14	
2-Apr	Strawflower	<i>Bracteantha bracteatum</i>	70-75	n	light	7-10	Grow on cool, transplant to 3 inch pots
2-Apr	Cacalia, Tassel Flower	<i>Emilia coccinea</i>	68-72	c		8-15	Direct sow to cell packs 2 seed/cell
2-Apr	Bluebells	<i>Campanula sp.</i>	68-86	y-slight		10-14	
2-Apr	Safflower	<i>Carthamus tinctorius</i>	68-72	n	light	5-14	Direct sow to cell packs 1 seed/cell or direct sow outdoors
2-Apr	Chilean Glory Vine	<i>Eccremocarpus scaber</i>	60-65	y		7-14	
2-Apr	Chinese Foxglove	<i>Rehmannia angulata</i>	55-65	n		7-20	
2-Apr	Chrysanthemum	<i>multicaule & paludosum</i>	60-65	lightly		10-	Transplant to 3 inch pots
2-Apr	Crepis	<i>Crepis rubra</i>	59-68	y-slight	light	14-21	
2-Apr	Echium	<i>Echium vulgare</i>	70	y		7-14	
2-Apr	Felicia	<i>Felicia bergeriana</i>	70	n		7-14	
2-Apr	Gaillardia	<i>Gaillardia pul-cheia</i>	65-68	n	light	15-20	

2-Apr	Heteropappus	<i>Heteropappus</i> sp.	70	y			
2-Apr	Iberis (Candytuft)	(annual)	68-72	y		7-14	
2-Apr	Jewels of Opar	<i>Talinum paniculatum</i>	70-72	y-slight		4-8	Transplant to 2 inch pots
2-Apr	Larkspur	<i>Consolida ambigua</i>	55-60	sl	light		Chill 1 week before sowing
2-Apr	Limnanthes	<i>Limnanthes douglasii</i>	60-65	y		14-21	
2-Apr	Lobelia	<i>Lobelia erinus</i>	75	n		15-20	
2-Apr	Love Grass	<i>Eragrostis elagans</i>	70-72	y-slight		3-8	Grow on at 58-60 degrees
2-Apr	Matricaria	<i>Chrysanthemum parthenium</i>	70	n	light	10-15	
2-Apr	Melampodium	<i>Melampodium paludosum</i>	65	lightly		7-10	Grow on at 60-62 degrees
2-Apr	Milk Thistle	<i>Silybum marianum</i>	55-60	y		10-15	
2-Apr	Mimulus	<i>Mimulus guttatus</i>	60-70			5-7	
2-Apr	Pentzia	<i>Pentzia</i>	70	n		14	Transplant to 3 inch pots
2-Apr	Petunia	<i>Petunia hybrida</i>	75-78	n	light	10	
2-Apr	Phlox	<i>Phlox Drummondii</i>	60-65	y	dark	10-15	
2-Apr	Poppy, Peony-flowered	<i>Papaver paeoniflorum</i>	65-75	n	light	5-20	
2-Apr	Salvia, Scarlet, Scarlet sage	<i>Salvia coccinea</i>	70-75	n	light	7-12	Grow on cool 60F
2-Apr	Sage, Clary	<i>horminum, viridis</i>	70	n	light	3-6	Grow on cool 60F
2-Apr	Salvia	<i>patens</i>	70	n	light	4-7	Grow on cool 60F
2-Apr	Salvia, red	<i>splendens</i>	75-78	n	light	12-15	Grow on cool 60F
2-Apr	Snapdragon	<i>Antirrhinum majus</i>	70-75	n	light	10-14	Chill seed several days before sowing
2-Apr	Statice	<i>Limonium</i>	70	y		5-12	Grow cool for earlier flowering
9-Apr	African Foxglove	<i>Ceratotheca triloba</i>	70-75	y 1/8"		7-20	
9-Apr	Agrostemma	<i>githago</i>	65-70	y		4-8	
9-Apr	Bee Balm Bergamot, Monarda	<i>Monarda spp.</i>	68-86	y		7	Transplant at 4-true-leaf stage

9-Apr	Bupleurum	<i>Bupleurum griffithii</i>	60	y		14-21	2 wks chilling, best sown direct
9-Apr	Castor Bean	<i>Ricinus communis</i>	70-72	y		6-11	2 seeds/ pot
9-Apr	Centranthus	<i>Centranthus ruber</i>	60-70	slight			
9-Apr	Cineraria	<i>Senecio sp.</i>	70-75	n		10-12	
9-Apr	Codonopsis	<i>Codonopsis clematidea</i>	70-75	y		8-14	
9-Apr	Cup and Saucer Vine	<i>Cobaea scandens</i>	70	y-slight		4-8	Pinch, Transplant to 3 inch pots; stake to avoid tangles
9-Apr	Grass, Great Quaking	<i>Briza maxima</i>	70	y-slight		4-6	2-4 seedlings/ cell
9-Apr	Helenium	<i>Helenium amarum</i>	60	n	light	14-21	
9-Apr	Malope	<i>Malope trifida</i>	70	slight			
9-Apr	Nemesia	<i>Nemesia strumosa</i>	60-65	y	dark	7-14	
9-Apr	Nolana	<i>Nolana paradoxa</i>	70	n		15	
9-Apr	Orlaya	<i>Orlaya grandiflora</i>	68	y		15-20	
9-Apr	Pyrethrum	<i>Chrys. coccineum</i>	70	y		20-25	
9-Apr	Sea Holly	<i>Eryngium alpinum</i>	68-70	y		10-15	
9-Apr	Xanthisma, sleepy daisy	<i>Xanthisma texana</i>	70	n			
11-Apr	Alyssum	<i>Lobularia maritima</i>	78-82	n	light	8-15	
11-Apr	Anthemis	<i>Anthemis tinctoria</i>	65-68	y		10-14	
11-Apr	Brachycome	<i>Brachycome iberidifolia</i>	70	y		10-	Transplant to 3 inch pots
11-Apr	Calendula	<i>Calendula officinalis</i>	70	y	dark	10-14	
11-Apr	Cardinal Climber	<i>Ipomoea x multifida</i>	65-70	y		5-7	Sow in cell packs; transfer to 3 inch pots; stake to avoid tangles
11-Apr	Cleome	<i>Cleome hasslerana</i>	80/70	n	light	8-21	Erratic germ., seed heavily
11-Apr	Coreopsis	<i>Calloopsis sp.</i>	65-75	n	light	7-14	
11-Apr	Cosmos	<i>Cosmis bipinnatus</i>	70	y		5-10	
11-Apr	Dahlia	<i>Dahlia x hybrida</i>	60-65	y		5-10	

11-Apr	Gypsophila, Baby's Breath	<i>Gypsophila paniculata</i>	70			10-15	
11-Apr	Strawflower	<i>Helichrysum bracteosum</i>	70	n	light	7-10	
11-Apr	Helipterum Everlasting	<i>Helipterum roseum</i>	65-75	y		14-20	
11-Apr	Hollyhock	<i>Althea rosea</i> <i>Zebrina</i>	70	sl	light	10-14	
11-Apr	Kochia	<i>Kochia scoparia</i>	70-75	n	light	10-15	
11-Apr	Layia ,Tidy Tips	<i>Layia platyglossa</i>	70-75	y		8-12	
11-Apr	Malva	<i>Malva trifida</i>	70	y			
11-Apr	Morning Glory	<i>Ipomoea violacea</i>	65-70	y		5-7	Sow in cell packs; transfer to 3 inch pots
11-Apr	Nicotiana	<i>Nicotiana sylvestris, x sanderae</i>	75	n	light	10-20	
11-Apr	Nigella, Love in a Mist, Fennel Flower	<i>Nigella spp.</i>	65-70	y 1/16"		7-14	Plugs or Transplant to cell packs
11-Apr	Phacelia	<i>tanacetifolia</i>	70	n	light	10	
11-Apr	Poppy	<i>P. spp.</i>	65-75	n	light	10-15	Best if direct sown in the garden
11-Apr	Scabiosa (Starflower)	<i>Scabiosa atropurpurea</i>	65-70	y		10-15	Drop night temps
11-Apr	Stock	<i>Matthiola incana</i>	65-75	n	light	7-10	
11-Apr	Thunbergia	<i>Thunbergia spp.</i>	68-86	y		10-15	Alternate 68 to 86 F
11-Apr	Twinspur (Diascia)	<i>Diascia barberae</i>	72	n	light	4-8	Grow on at 55 degrees
11-Apr	Xeranthemum everlasting	<i>Xeranthemum anuum</i>	70	y		10-15	
16-Apr	Argemone	<i>Prickly Poppy</i>	65	y			
16-Apr	Broom Corn	<i>Sorghum vulgare</i>	72-78	y		3-5	
16-Apr	Browallia	<i>Browallia americana</i>	65-75	n		6-21	Plants have weak stems, support
16-Apr	Cardoon	<i>Cynara cardunculus</i>	50-60	y 1/8"		5-15	

16-Apr	Carex	<i>Carex comans</i>	70-75	y		10-14	Cover Well, direct seed to cell packs; Transplant to 2 inch pots
16-Apr	Celosia	<i>Cekosia soo.</i>	70-75	y		8-10	
16-Apr	Chinese Forget Me Not	<i>Cynoglossum amabile</i>	65-75	y		5-8	
16-Apr	Convolvulus	<i>Convolvulus tricolor</i>	70-80	y		5-14	
16-Apr	Godetia	<i>Clarkia amoena</i>	70	y slight		10	Grow cool
16-Apr	Hyacinth Bean	<i>Dolichos lablab</i>	70	y 1/8"		14	Transplant to 3 inch pots
16-Apr	Lagurus	<i>Lagurus ovatus</i>	75-85	y slight		4-8	direct seed in cell packs, transplant to 2 inch pots
16-Apr	Lavatera	<i>Lavatera trimestris</i>	70	y		15-20	
16-Apr	Linaria 'Three-birds-flying'	<i>Linaria triornithophora</i>	55-60	y		10-15	
16-Apr	Lions Tail	<i>Leonotis leonurus</i>	65-70	y 1/4"		14-21	Transplant to 3 inch pots
16-Apr	Malabar Spinach	<i>Bassella rubra</i>	65-75	y		14-21	Scarify seeds with sandpaper to weaken seed covering
16-Apr	Millet, Ornamental	<i>Pennisetum glaucum</i>	72-78	y		3-5	
16-Apr	Mosquito Flower	<i>Lopezia cordata</i>	70-75	y 1/8"		?	Transplant to cell packs
16-Apr	Nicandra (Shoo-Fly-Plant)	<i>Nicandra physalodes</i>	70	y			
16-Apr	Ornamental Cabbage, Kale	<i>Brassica sp.</i>	68	y		10	Transplant deeply up to first leaves, grow cool
16-Apr	Pumpkin on a Stick	<i>Solanum integrifolium</i>	70-75	y		5-8	
16-Apr	Mexican sunflower	<i>Tithonia rotundifolia</i>	70	y-slight		5-10	
16-Apr	Ursinia	<i>anethoides</i>	?	y-slight		?	
16-Apr	Venus' Looking Glass	<i>Legousia pentagonia</i>	No heat?	n		7-21	Transplant to 2 inch pots
16-Apr	Zinnia	<i>Zinnia elegans</i>	70-75	y		5-7	

23-Apr	Canary Bird Vine, Canary Creeper	<i>Tropaeolum peregrinum</i>	65-70	y		5-10	
23-Apr	Gilia, bird;s eyes	<i>Gilia tricolor</i>					
23-Apr	Marigold	<i>Tagetes sp. All kinds</i>	70-75	y		5-7	
23-Apr	Mignonette	<i>Reseda odorata</i>	70	n	light	5-10	Seed in plug tray
23-Apr	Sanvitalia	<i>Sanvitalia procumbens</i>	70	n	light	10-15	
23-Apr	Schizanthus (Butterfly Flower)	<i>Schizanthus pinnatus</i>	60-70	n	dark	20-25	
23-Apr	Venidium, monarch-of-the-veldt	<i>Venidium fastuosum</i>	62-72	y		14-20	
25-Apr	Artemesia	<i>annua</i>	70-75	n	light	10-15	
25-Apr	Cerithe	<i>Cerithe major</i>	70-75	y-slight			Sow directly in Transplant to cell packs's
25-Apr	Collinsia	<i>Collinsia greenii</i>	70-72	y-slight		14-21	Transplant into 4" Pot
25-Apr	Nasturtium	<i>Tropaeolum majus, T. minor</i>	65	y	dark	7-12	
25-Apr	Sunflower	<i>Helianthus annuus</i>	65-75	y		10-14	
30-Apr	Ambrosia		70	y 1/8"		10-14	
Direct	Sweet Pea	<i>Lathyrus odoratus</i>	55-60	y		10-14	Sow as soon as soil can be worked in the spring. We cover with clear plastic mulch till seedlings appear
Direct	Scarlet Runner Beans	<i>Phaseolus coccineus</i>	68-75	y		6-10	Do not sow until soil >55F