

Saber coleus. Courtesy of Pan-American Seed Co.

BY E. F. SCHAUFLER AND R. G. MOWER

AN EXTENSION PUBLICATION OF THE NEW YORK STATE COLLEGE OF AGRICULTURE AND LIFE SCIENCES, A STATUTORY COLLEGE OF THE STATE UNIVERSITY, AT CORNELL UNIVERSITY, ITHACA, NEW YORK



Nicotiana Nicki-Rose. Courtesy of Pan-American Seed Co.

An annual is a plant that produces a good display of flowers in one growing season, then dies in the fall because it has completed its life cycle or is killed by frost. Some plants (geraniums, Iceland poppies, mealy-cup sage) that may be perennial in warmer areas are treated as annuals in this climate.

Annuals are popular because they are versatile in use, are colorful, produce quick results, and are relatively inexpensive. They can be planted among young perennials to provide color until the permanent plants fill in the area. Most annuals have shallow root systems and are adaptable to planting over spring-flowering bulbs such as tulips and narcissus.

Recently plant breeders have succeeded in making the dwarfing gene partially or completely dominant in many annual varieties.

Dwarf types add summer color to rock gardens or can be used as edging plants. Others are used in planters or window boxes. The majority are useful as bedding plants for mass effects. Dwarf varieties are available in the following annuals:

Ageratum	4-5"
Bachelor's button	12"
Begonia, fibrous	
rooted	6-8"
Calendula	6"
Calliopsis	6"
Celosia, crested type	6"
Celosia, plume type	8"
China aster	6"
China pink	4-6"
Cosmos	18"
Dahlia	12-14"
Gaillardia	12"
Marigold	8"
Nasturtium	12"
Nicotiana	15"
Periwinkle (vinca)	10"
Sunflower	15"
Sweet peas	8-30"
Zinnia	4-6"

In general, the best effect is created by massing the plants, setting them about 1 foot apart (the length of an average trowel). Small types such as sweet alyssum, lobelia, portulaca, dianthus, and alternanthera, however, are usually more effective if planted 6 inches apart.

Annual flowers are excellent materials for container culture during the summer months. Bright color effects are easily achieved in living areas by using portable, mobile, lightweight plastic containers. Other small "gardens" are

pillow paks, window boxes, porch boxes, and the like. Specific varieties of petunias, such as the cascade strain, are excellent for hanging baskets. Fuchsias, vining begonias, vining geraniums, and other trailing forms of annuals can be selected for specific roles in bringing enjoyable flower color into your outdoor living area.

All-America Selections was founded in 1932 to test new varieties of flowers and vegetables grown from seed and to make awards of recognition to the most outstanding. Entries are submitted to All-America Selections each year from all over the world by private, commercial, and government plant breeders. At the present time All-America Selections has 32 trial gardens devoted to testing new flower seed varieties. Seed is distributed to each of the trial gardens under a code number so that the judges have no knowledge of who submitted the trials. Each new entry is also grown alongside a "comparison" trial, representing the nearest equivalent existing variety. Judges are the horticultural leaders of America, including the presidents and research directors of leading seed companies plus the directors of botanical gardens and professors of leading universities. New varieties are introduced as a result of these trials.

Only the more common annuals that are successful in New York State are covered in the following checklist.

Botanical name and common name	Height	Color	Blooming season	Situation	Uses	Approx. days to germination	Seeds/ oz	Possible seeds/ packet†
Ageratum houstonianum	4"-12"	B Pn V W	Long	Av., dry	Bed, cont.	14	214,000	1,000
Ageratum Alcea (Althaea) rosea	24"	RPnYLW	Late	Sun	Nov.	10	3,000	60
Hollyhock (annual form)  Alternanthera ficoidea	9"			Av.	Fol., edge			
Telanthera Amaranthus sp.	36"-48"			Sun	Foliage	24	45,000	600
Amaranthus Antirrhinum majus	6"-36"	LRVW	Long	Av.	Cut	14	220,000	2,500
Snapdragon Arctotis sp.	12"-24"	R Pn Y W	Long	Sun, dry	Bed, cut	10		50
African daisy Asclepias fruticosa (Gomphocarpus fruticosus)	36"	W	Mid-late	Av.	Fruit	15		50
Gomphocarpus Begonia ×semperflorens-cultorum Fibrous begonia	6"-12"	R Pn W	Long	Shade	Bed, cont.	18	950,000	200
Briza maxima Quaking grass	12"-18"	Bm	Short	Sun	Fruit, dried			50
Browallia sp. Browallia	12"-15"	BVW	Long	Shade	Cont.	35	70,000	225
Calendula officinalis Calendula	6"-24"	OY	Long	Av.	Cut	14	4,000	200
Callistephus chinensis China aster	6"-24"	B Pr R W	Short, late	Av.	Cut	10	12,000	200
Capsicum sp.	12"-18"	OYR		Shade	Fruit	14	10,500	100
Ornamental pepper Catharanthus roseus (Vinca rosea) Periwinkle	10"-18"	Pn R W	Long	Av., shade	Bed, cont.	14	22,000	200
Celosia cristata Cockscomb	6"-24"	RY	Long	Dry	Dried	6-10	30,000	400
Celosia cristata	8"-36"	RY	Mid-late	Dry	Cut, dried	6-10	30,000	400
Plume cockscomb Centaurea cyanus Bachelor's button	12"-24"	BRW	Short	Av.	Cut	15	7,000	350
Centaurea sp.	6"-24"			Av.	Foliage	18-25	7,000	200
Dusty miller Chrysanthemum ×morifolium	14"-24"	R Pn Y W	Late	Av.	Bed, cut	8	65,000	85
Garden mum Chrysanthemum parthenium Fevertew	10"-24"	WY	Long	Av.	Bed, edge, cut	15	145,000	25
Clarkia (Godetia) amoena Satinflower	12"-24"	R Pn W	Long	Sun	Bed, cut	15	42,000	63
Cleome hasslerana	48"	Pn Pr W	Long	Dry		15	12,500	40
Spider flower Coleus ×hybridus	18"-36"			Shade	Fol., cont., bed	14	115,000	12
Coleus Consolida orientalis (Delphinium ajacis)	36"	B Pn V W	Short	Part. shade	Cut	18	10,000	24
Larkspur Convolvulus tricolor	12"	B Pn W	Long	Av.	R G, edge	10	1,400	4
Dwarf bush morning glory Coreopsis tinctoria	6"-30"	RY	Short	Dry	Cut	14	100,000	1,00
Calliopsis Cosmos bipinnatus	36"-48"	CPW	Long	Dry	Cut	10-14	5,500	10
Cosmos sulphureus	18"-36"	YOR	Long	Dry	Cut	14	3,000	5
Yellow cosmos Cuphea ignea	12"	R	Long	Av.	Nov., cont.			5
Cigar flower Cuphea llavea	12"	R Pr	Long	Av.		20	7,000	
Firecracker flower Cynoglossum amabile	24"	В	Short, late	Av., dry		10	5,300	20
Chinese forget-me-not Dahlia hybrids	12"-36"	Various	Mid-late	Sun	Cut, bed	10	3,000	5
Dahlia Dianthus chinensis	4"-12"	Pn R W	Long	Av.	Cut	10	28,000	10
China pink Digitalis purpurea	30"	Pr L Pn Y W	Short	Shade	Cut	7-14	180,000	1,00
Foxglove (annual form) Dimorphotheca sp.	10"	OYW	Short	Dry	RG	18	10,000	10
Cape marigold Emilia javanica	24"	RY	Long	Sun, dry	Cut	8		10
Paint brush Eschscholzia californica	15"	ORYW	Medium	Dry	RG	10	14,000	40
California poppy Euphorbia marginata	24"	w	Short, late	Av.	Foliage	10	7,000	18

Botanical name and common name	Height	Color	Blooming season	Situation	Uses	Approx. days to germination	Seeds/ oz	Possible seeds packet
Gaillardia pulchella	12"-24"	RY	Long	Dry	Cut	18	15,000	450
Basket flower				-				
Gazania sp. Gazania	8"-15"	RPnOYW	Long	Sun, dry	Bed, fol., cont.	8	12,000	350
Gomphrena globosa	6"-18"	B Pr W	Mid-late	Dry	Cut, dried	15	5,800	150
Globe amaranth Gypsophila elegans	18"	W Pn	Short	Dry	Cut, RG	14	25,000	1,500
Annual baby's breath			Maria maria	7000	Out, 110			
Helianthus annuus Sunflower	15"-8"	YO	Short, late	Dry		12	varies	12
Helichrysum bracteatum	12"-30"	ORWYPr	Short, late	Dry	Dried	14	45,000	50
Strawflower Heliotropium arborescens	24"	Pr W	Long	Av.	Fragrant	21	55,000	60
Heliotrope Helipterum (Acroclinium) roseum	15"	Pn W	1000	Dec	1. (A. W. C.)	14.00		
Everlasting			Short, late	Dry	Cut, dried	14-20	9,000	6
Hunnemannia fumariifolia Mexican tulip poppy	15"	Y	Short, late	Av.	Cut	14	8,550	
Hypoestes phyllostachya	12"-15"			Shade	Foliage	10		5
(H. sanguinolenta) Polka-dot plant								
beris umbellata	12"	Pr R W	Short	Dry, shade	Cut	14	10,000	27
Annual candytuft Impatiens balsamina	8"-24"	R Pn W	Chart	and any Street at		10	2 500	
Garden balsam	8 -24	III CONTRACT	Shart	Shade		12	3,500	8
Impatiens wallerana (I. holstii; I. sultanii) Sultana; impatiens	6"-24"	R Pn W O	Long	Shade	Bed	15	60,000	7
Kochia scoparia	24"-36"			Sun, dry	Foliage	10	45,000	80
Summer cypress Lantana camara	12"-36"	LORY	Long	Sun	Cont.	45	1,300	5
Lantana					Cont.			0
Lathyrus odoratus Sweet pea	8"-30"	LRW	Short	Shade	Cut, fragrant	10-14	390	3
Lavatera trimestris	36"	Pn W	Long	Av.		14-35	5,500	28
Lavatera Limonium sp.	24"-30"	L Pn W Y	Late	Dry	Cut, dried	20	350	2
Statice							WENT OF THE PARTY	
Lobelia erinus Annual lobelia	6"-12"	B Pr R	Long	Shade	RG, cont., edge	10-15	750,000	3,00
Lobularia maritima	6"	VW	Long	Shade	Fragrant	5	70,000	1,20
Sweet alyssum Machaeranthera tanacetifolia	18"	L	Long	Sun	Cut, bed	30		5
Tahoka daisy					April 1			To Alberta
Matthiola incana Stocks	12"-24"	BLRWY	Short	Av.	Cut	8	19,000	25
Mirabilis jalapa	24"	Multicolor	Long	Av.	Bed	5	300	. 4
Four o'clocks Moluccella laevis	24"	RYW	Medium	Av.	Cut	30	4,200	10
Bells of Ireland		Marian and a			-247		All Marie III	
Nemesia strumosa Nemesia	18"	ORYW	Long	Shade	Bed	8	90,000	65
Nemophila menziesii	6"	В	Long	Shade	Bed, edge, RG	10	11,000	30
Baby blue eyes Nicandra physalodes	36"	В	Long	Av.	Fruit	15		5
Shoo-fly plant								
Nicotiana alata Flowering tobacco	15"-36"	W	Long	Shade	Fragrant	10	200,000	3,00
Nicotiana ×sanderae Red tobacco	15"-36"	R	Long	Shade		10	175,000	60
Nierembergia hippomanica	9"	BL	Long	Av., dry	RG, cont.	18	175,000	60
Cup flower Nigella damascena	15"	B Pn R	NAME OF TAXABLE PARTY.	7.00				
Love-in-a-mist		Briin	Short	Av.	Cut, fruit	14	12,000	30
Ocimum basilicum Basil	15"			Av.	Fol.	10	16,000	25
Papaver nudicaule	12"-24"	O Pn W Y	Short	Dry, sun		12	448,000	3,00
Celand poppy Papaver rhoeas	24"	ORWY	Short	in the same		12		
Shirley poppy			SHORE	Dry, sun		12	72,500	3,00
Pelargonium ×hortorum Geranium	18"	R Pn W	Long	Sun	Cont., bed	20	6,000	15
Pennisetum setaceum	48"			Sun	Background frui	t, 30	14,000	5
Fountaingrass Perilla frutescens	36"			Sun	dry foliage	15	2,000	
Crinkled coleus		SAN EXCENSION		Juli				
Petunia ×hybrida Petunia	10"-18"	BPrRW	Long	Av.	Cont., bed	10	262,000	60

Botanical name and common name	Height	Color	Blooming season	Situation	Uses	Approx. days to germination	Seeds/ oz	Possible seeds/ packet†
Phlox drummondii	8"	Pr R W Y	Long	Shade	Cut	12	18,000	225
Annual phlox Polygonum capitatum	4"	Pn		Av.	RG	30	31,000	500
Magic carpet				AV.	COOTE .			
Portulaca grandiflora Portulaca	6"	ORWY	Long	Dry, sun	RG	14	300,000	4,000
Proboscidea louisianica (Martynia louisianica)	18"	BYW	Long	Av.	Fruit	20		25
Unicorn plant Reseda odorata	15"	Υ	Long	Av.	Cut, fragrant	12	30,000	1,200
Mignonette Rudbeckia hirta	30"	Y O Brn	Long	Dry	200100	18	85,000	100
(R. bicolor) Coneflower			Long					
Rudbeckia 'Gloriosa Daisy' Gloriosa daisy	24"-36"	Y O Brn	Long	Av.		20	80,000	100
Salpiglossis sinuata Painted tongue	24"	Pr R Y	Short	Av.	Cut	14	125,000	1,000
Salvia farinacea	36"	B Pr W	Long	Shade	Dried	18	24,000	200
Mealy-cup sage Salvia patens	30"	В	Long	Shade				
Gentian sage	10" 04"	D.W.D.	N. C. C. C. S.	A.,	Red	14	7.500	100
Salvia splendens Scarlet sage	10"-24"	R W Pr	Long	Av.	Bed	14	7,500	
Santolina sp.	12"	Y	Long	Dry, sun	Edge, fol.	15	51,000	1,500
Santolina Sanvitalia procumbens	6"-12"	Y	Long	Dry	RG	10	50,250	700
Creeping zinnia Scabiosa atropurpurea	24"-36"	Pr Pn W	Long	Av.	Cut	18	4,500	80
Pincushion flower Schizanthus pinnatus	12"-18"	Pr L V Pn W	Short	Shade	Cut	15	50,000	
Poor-man's orchid Tagetes erecta	12"-30"	OY	Mid-late	Dry	Cut, cont., bed	8	11,000	100
African marigold	2002300	a Remove		222 00	STORY OF CHARLES		A100 878 800 1	
Tagetes patula French marigold	8"-24"	ORY	Long	Dry	Cut, cont., bed	8	10,000	150
Tagetes tenuifolia cv. 'Pumila' Scotch marigold	12"	Y Brn	Long	Dry	Cut	8	9,000	100
Talinum paniculatum Jewels of Opar	18"-24"	Pn	Long	Dry	Cut	15		
Tithonia rotundifolia	6"-48"	0	Mid-late	Dry		25	4,000	45
Mexican sunflower Torenia fournieri	12"-18"	Pr W	Long	Shade	RG, cont.	14	375,000	2,000
Wishbone flower Trachymene (Didiscus) coerulea	24"	BW	Short	Av.	Cut	13	10,300	
Blue lace flower Tropaeolum majus	12"	ORY	Long	Dry	RG, cont.	13	250	60
Nasturtium		Oldari, Co.			0.3847.770.440			
Verbena ×hybrida Verbena	6"-12"	B Pr R W	Long	Shade	RG, cont.	14	12,500	140
Viola ×wittrockiana Pansy	12"	Various	Vice	Shade	Cut	14	22,000	300
Xanthisma texana Star of Texas	18"	Y	Long	Sun		25		150
Zinnia angustifolia	15"-20"	0	Long	Dry	Cut, bed	10	4,000	
(z. linearis) Zinnia elegans	4"-36"	Various	Long	Dry	Cut, bed	7-14	3,000	150
Zinnia haageana Mexican zinnia	18"-24"	Various	Long	Dry	Cut, bed	7-14	3,000	100
VINES Cobaea scandens		Pr	Medium	Av.	Screen	21	400	25
Cathedral bells Dolichos lablab		Pr W	Medium	Av.	Screen	10	115	
Hyacinth bean					TOTABLE			
(Calonyction aculeatum) Moonflower vine		W	Short	Av.	Screen	50-60	120	
Ipomoea sp.		B Pr R	Long	Shade	Screen	21	700	40
Morning glory Lathyrus odoratus		LRW	Short	Shade	Cut, fragrant	10-14	390	30
Sweet pea Phaseolus coccineus		В	Long	Av.	Fruit			25
Scarlet runner bean					1101	100		
Tropaeolum majus Nasturtium (vining)		ORY	Long	Dry		13	250	60
Vinca major				Av.	Fol., cont.		22,000	



Fantasia impatiens. Courtesy of Ball Seed Co.



Marigold, dwarf French Janie. Courtesy of All-America Selections.



Zinnia, Peter Pan Flame hybrid. Courtesy of All-America Selections.

## Notes for Table

Height. The approximate height in average situations is given. A range indicates that there are different strains. For example, Zinnia elegans includes cupid zinnias that are dwarf types and giant- and dahlia-flowered types that grow to 3 feet.

Color. Only basic colors are listed. For instance, red often indicates a range from pink to rose, crimson, or scarlet. The following is a key to color abbreviations.

 B—Blue
 Pn—Pink

 Brn—Brown
 Pr—Purple

 C—Crimson
 R—Red

 G—Green
 V—Violet

 L—Lavender
 W—White

 O—Orange
 Y—Yellow

What to plant. Almost all annuals will be more satisfactory and produce a quicker display of flowers if plants are set out in late May when there is no danger of frost. Plants can be purchased from greenhouses, nurseries, or garden centers. Seed can be started indoors by the gardener if he or she has facilities. Species such as ageratum would have only a short flowering period at the end of the season if seed were sown directly out-of-doors.

The asterisk(\*) indicates the so-called hardy annuals, which often self-sow from one year to another and can tolerate light frost. Seeds of hardy annuals can be sown in the garden in the fall or in the spring as soon as the ground can be worked.

**Situation.** Tolerance (not necessity) of dry locations or of shaded areas is indicated. Sun identifies those that perform best in full sunlight.

**Uses.** Although annuals are versatile and can be used in many ways, certain ones are especially adapted for specific purposes. These are broadly outlined by the following designations.

Bed — useful in mass as bedding plants.

Cut - long lasting as cut flower.

Cont. — container including portable planters, urns, and porch and window boxes.

Dried — material can be dried for use in winter arrangements.

Edge - useful as an edging plant.

Fol. — the plant is grown only for its foliage effect. Flowers are usually insignificant.

Fruit — grown mainly for interesting fruit display.

Nov. - novelty in flower or fruit.

RG - useful in rock garden.

Screen — those vines that are dense and luxuriant enough in growth to produce a screening effect. Seeds per ounce. This column lets the inexperienced gardener know that some annuals produce tiny seeds, which require extreme caution in seeding and growing. Seeds vary tremendously in shape and size.

Seeds per packet. There is no consistency in how many seeds you will get in a packet. The number varies with each variety. Hybrid and new introductions are more expensive than open-pollinated varieties. Mail order concerns usually indicate an approximate number of seeds per packet, which may vary considerably among seed companies. One company now puts 100 seeds in most retail packets. The table listing is to be used as a general guideline only.



Ornamental pepper, Holiday Time. Courtesy of All-America Selections.

Plant Sciences
Floriculture and
Ornamental Horticulture II

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