

Flowering Perennials: Characteristics and Culture

Flowering perennials represent a large group of garden plants with roots that persist from year to year. Stems and leaves of some may remain, but in most, the tops die back to the soil each winter.

Perennials are suitable for many locations. Most frequently, they are incorporated in a flower border that they share with annual flowers and shrubs. Perennials with similar cultural requirements are grouped into plantings known as rock gardens, wildflower gardens, bog gardens or perennial flower borders.

Table 1 lists some major perennial plants and their important characteristics and cultural preferences.

Space is not available here to fully describe the plants and flowers. Reviewing garden catalogs or visiting a nursery, garden center or botanic garden will help you become familiar with available plants.

Description of terms and codes

Height. The height range, given in inches, helps to determine whether a plant is suitable for an edging (1–12 inches), for the middle of a bed (12–36 inches), or for a background plant (more than 36 inches). Where a very wide range is given (such as Bellflower, 8–36 inches), some dwarf varieties are indicated.

Bloom period. The month or months of peak bloom are listed. Time of flowering varies with exposure and climatic area. These listings are primarily for central Missouri.

Color(s). Plant are keyed with their most common colors. Many blends, shades and tints exist.

B – blue	G – green	L – lavender
O – orange	P – pink	R – red
V – violet	W – white	Y – yellow

Cultural requirements

Light

Full sun (FS). Locate plant away from the shade of buildings, large trees or other objects that will not allow at least six hours of direct sunlight each day.

Semi-shade (SS). Give partial shade either as a long period of light shade or as more dense shade during the afternoon. Most plants in this category must have shade during the hottest part of the day.

Shade (S). These plants must have continuous shade with no direct sun. In heavy shade, other necessary cultural requirements must be carefully fulfilled.

Moisture

Well drained (WD). Periods of standing water on the soil are damaging to perennials in both summer and winter. In heavy soils, add liberal amounts of organic matter to ensure good internal soil drainage. If external drainage is poor, consider raised beds or drain tile below. For information on improving soils, see MU Extension publication G6955, *Improving Lawn and Landscape Soils*.

Dry (D). These plants will not tolerate moist conditions very long, but they will withstand considerable dryness.

Moist (M), but well drained. Plants in this category do not tolerate drying, but they also do not tolerate any water standing around their roots. In the garden, they need regular watering during dry periods.

Wet (W). Plants will tolerate boggy conditions or even standing water. However, they are not the aquatics, such as waterlilies. Aquatic plants are not included in this publication.

Soil

Loam (L). Any good well-kept garden soil fits this category. Yearly additions of organic matter help develop a good loam. Where a poor soil is to be planted for the first time, amend it by mixing in at least 4 inches of organic matter.

Sandy loam (S). This type of soil is required mainly by plants that need excellent drainage. If the original soil is a tight clay, large amounts (at least 50 percent) of sand will have to be added to achieve this type of soil.

Organic soil (O). Some plants require a soil very high in organic materials that have an acid reaction.

Credits

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Where soils are not naturally this way, liberal amounts (up to 33 percent) of peat moss mixed thoroughly with the soil can achieve this condition, and annual applications of sulphur may be necessary for maintenance.

Woodland soil (W). Such a soil is usually required for the wildflower garden. It results from decomposition of leaves and is fairly high in organic matter. It is not necessarily very acid soil. Add liberal quantities of leaf compost or peat to prepare this type of soil.

Relative ease of care

E – easy M – moderate C – challenging

Remarks

Unusual or outstanding plant and cultural characteristics are listed briefly. Included are notes on cultural ease, winter hardiness, or special uses, or emphasis of an extremely important cultural requirement.

Table 1. Characteristics and culture of flowering perennials.

Common name, Scientific name	Height (inches)	Bloom period	Color	Light	Moisture	Soil	Relative ease	Remarks
Anemone, Japanese, <i>Anemone japonica</i>	18–30	Sept.–frost	W, P	SS	WD	L	M	Dislikes transplanting. Spring plant only.
Anthemis, Golden Marguerite, <i>Anthemis tinctoria</i>	12–24	Aug.–frost	Y	FS	WD	L	M	Attractive fine-cut leaves. Divide every 3–4 years. Self-seeds readily.
Artemisia, <i>Artemisia</i> sp.	9–36	Aug.–Sept.	W, Y	FS	WD	L, S	E	Many species and varieties. Includes Silver King and Silver Mound.
Aster, Michaelmas daisy, Aster hybrids	12–72	July–frost	W, R, B, L, V, P	FS	M, WD	L	M	Many varieties of differing growth habit. Divide every other year.
Astilbe, <i>Astilbe</i> sp.	12–24	May–June	W, P	FS	M, WD	L	E	Easy to grow. Sometimes incorrectly called spirea.
Baby's breath, <i>Gypsophila paniculata</i>	18–30	June–July	W, P	FS	WD	L	E	Easy to grow. Avoid acid soil. Add lime if necessary.
Balloon flower, <i>Platycodon grandiflorum</i>	18–24	May–Aug.	B, W, P	FS	WD	S	M	Weak-stemmed plant, may need staking. Avoid wet places.
Basket-of-gold, <i>Aurinia saxatile</i>	12–18	May	Y	FS	WD	S	M	Foliage gray. Suitable for rock garden.
Beardtongue, <i>Penstemon</i> sp.	6–28	June–July	P, R, L	FS	WD	S	M	Avoid acid soil. Fairly short-lived. Some good as cut flower.
Bee-balm, <i>Monarda didyma</i>	18–24	July–Aug.	R, P, L, W	FS	WD, D	L	M	Other species available. Useful for hot, dry places. Also endures light shade.
Bellflower, <i>Campanula</i> sp.	8–36	May–July	W, B	FS, SS	WD	S	M	Needs excellent drainage. Avoid clay. Mulch in winter. Species vary in height.
Bergenia, <i>Bergenia cordifolia</i>	12–15	May–June	P, W	SS	M	L	M	Waxy foliage remains green in winter.
Blackberry lily, <i>Belamcanda chinensis</i>	24–36	July–Aug.	O	FS	WD	L	E	Flowers followed by blackberry-like seed clusters.
Black-eyed Susan, <i>Rudbeckia fulgida</i>	24–36	June–July	Y, O	FS	WD	L	E	Very tolerant. Good for bold splash of color.
Bleeding heart, Old-fashioned, <i>Dicentra spectabilis</i>	18–24	May	P, R	FS, SS	WD	L	M	Easy to grow. Should be fall planted.
Blue false indigo, <i>Baptisia australis</i>	36–48	May–June	B	FS	WD	S, L	E	Also called rattlebush. Missouri native.
Blue flax, <i>Linum perenne</i>	12–28	June–Aug.	B	FS	WD	L	E	Likes poor soil. Lasts about 3 years. Easily grown from seeds planted in spring.
Boltonia, <i>Boltonia asteroides</i>	24–48	Aug.–Sept.	W, P	FS	WD	L	E	Choose named cultivars. Species gets too tall for most gardens.
Brunnera, Siberian bugloss, <i>Brunnera macrophylla</i>	12–18	May–June	B	SS	M, WD	L	M	Resembles forget-me-not.
Butterfly weed, <i>Asclepias tuberosa</i>	12–20	Aug.	O, Y, R	FS	WD	S	E	Difficult to transplant. Suited to hot, dry sites.
Candytuft, Evergreen, <i>Iberis sempervirens</i>	8–12	April	W	FS	WD	L	M	For rock garden and stone walls, or groundcover.
Chrysanthemum, <i>Dendranthema</i> hybrids	10–36	July–frost	W, R, O, V, L, P	FS	WD	L	E	Varieties determine growth. Pinch tips of tall types in early summer for bushiness.
Columbine, <i>Aquilegia</i> hybrids	6–36	April–June	W, R, P, V, B, L, Y	FS, SS	WD	S, L	E	Fairly short-lived. Reseeds easily. Sow seeds in early summer.
Coneflower, Purple, <i>Echinacea purpurea</i>	24–36	Aug.–Oct.	P	FS	WD	L	E	Tolerates very poor soil. Flower “petals” drooping.
Coral bells, <i>Heuchera sanguinea</i>	18–24	June	W, P, R	FS, SS	WD	L	M	Divide every 3 years. Good cut flower.
Coreopsis, Thread-leaf tickseed, <i>Coreopsis verticillata</i>	18–30	June–Aug.	Y	FS, SS	WD, M	L	E	Easy to grow. Blends well with other perennials. Blooms all summer.

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Daylily, <i>Hemerocallis</i> hybrids	15–36	June–Sept.	R, O, Y, L, P	FS, SS	WD, M, D	L	E	Easily grown. Adapts to many conditions. Excellent hybrids available.
Delphinium, <i>Delphinium</i> hybrids	36–60	July–Aug.	W, B, L	SS	WD	L	M	Likes cool weather. Give afternoon shade. Needs excellent drainage.
Evening primrose, <i>Oenothera</i> sp.	8–36	July–Aug.	Y, P	FS	WD	S, L	M	Flowers open in evenings. Good rock garden plant. Some are invasive.
False dragonhead, <i>Physostegia virginiana</i>	18–48	July–Sept.	P, W	FS, SS	M, WD	L	E	Also called obedient plant. A vigorous grower.
False sunflower, <i>Heliopsis helianthoides</i>	36	July–Sept.	Y, O	FS	WD	L	M	Flowers good for cutting.
Foamflower, <i>Tiarella cordifolia</i>	10–12	May–June	W, P	SS, S	WD	L	M	Compact, spreading growth habit. Flowers similar to Astilbe.
Foxglove, <i>Digitalis purpurea</i>	24–28	June	V, P, W	SS	M, WD	L	M	Grow as biennial. Sow seed in coldframe in Aug. or Sept. A cool-climate plant.
Gaillardia, <i>Gaillardia x grandiflora</i>	24–30	July–Sept.	Y, R	FS	WD	L	M	Easy to grow. Good cut flower.
Geum, Avens, <i>Geum</i> hybrids	12–20	July	R, O, Y	FS	WD	S	M	Divide every 3 years. Provide winter mulch.
Globe thistle, <i>Echinops ritro</i>	24–48	July–Sept.	B	FS, SS	WD	S, L	E	Tolerates poor soil. Replant every 3–4 years.
Globeflower, <i>Trollius europaeus</i>	12–18	May	Y, O	FS, SS	M, WD	L	M	Do not let dry out. Good beside pools.
Gooseneck loosestrife, <i>Lysimachia clethroides</i>	24–36	July–Aug.	W	FS	WD	L	E	Very aggressive. May become invasive.
Helenium, Sneezeweed, <i>Helenium autumnale</i>	36–48	Aug.–Oct.	Y, R	FS	M, WD	L	E	Good cut flower. Divide and replant every 3 years.
Hibiscus, <i>Hibiscus palustris</i>	24–60	July–Sept.	W,P, R	FS	M, WD	L	M	Also called H. moscheutos. Flowers very large.
Hollyhock, <i>Alcea rosea</i>	48–72	July–Aug.	W,P, R	FS	WD	L	E	Best grown as biennial. Seed outdoors in July.
Hosta, Plantain lily, <i>Hosta</i> sp.	6–36	July–Aug.	W, L	SS, S	M, WD	L	E	Useful as groundcover. Leaves large in some types.
Iris, German, <i>Iris germanica</i>	12–36	April–June	B, V, R, P, W, Y, L, O	FS	WD	L	E	Easy to grow. Many varieties available.
Iris, Japanese, <i>Iris kaempferi</i>	18–36	June–July	B, W, Y, L, P	FS, SS	M, WD	L	M	Suitable at the edge of ponds. Replant every 4–5 years.
Iris, Siberian, <i>Iris siberica</i>	18–24	May–June	W, B	FS, SS	M, WD	L	E	Likes rich soil. Never let dry out.
Lamb's ears, <i>Stachys byzantina</i>	12–18	June	P	FS, SS	WD	S, L	M	Will grow in dry, poor soils. Woolly grayish leaves.
Lady's mantle, <i>Alchemilla mollis</i>	10–12	June–July	Y	FS, SS	M	L	M	Compact, spreading habit. Prefers a cool, moist location.
Lavender, <i>Lavandula angustifolia</i>	12–20	July–Aug.	L	FS	WD	S	M	Likes poor soil. Very fragrant foliage.
Leadwort, <i>Ceratostigma plumbaginoides</i>	8–12	Aug.–frost	B	FS	WD	S	E	Sometimes called plumbago. Semiwoody groundcover.
Lenten rose, <i>Helleborus niger</i>	5–8	Feb.–March	W	SS	M, WD	L	C	Needs rich soil. Do not transplant or cultivate.
Leopard's bane, <i>Doronicum caucasicum</i>	12–18	April	Y	FS, SS	M, WD	L	E	Dormant in July–Aug. Plant among spring bulbs.
Liatris, Gayfeather, <i>Liatris</i> sp.	24–48	July–Sept.	W, L	FS	WD	S	E	Adapts well to dry locations. Spike flowers open from top downward.
Lily turf, <i>Liriope muscari</i>	6–10	Aug.	V, W	FS, SS, S	WD	S, L	E	Evergreen border plant or groundcover. Cut back old growth in spring.
Lily-of-the-valley, <i>Convallaria majalis</i>	6–8	May	W, P	SS	M, WD	L	E	Used for groundcover and cutting of flowers.
Loosestrife, yellow, <i>Lysimachia punctata</i>	18–30	July–Sept.	Y	FS, SS	M, W	L	E	Needs semishade in dry soils.
Lungwort, <i>Pulmonaria longifolia</i>	8–12	May–June	B	SS, S	M	L	M	Very distinctive foliage with unusual variegation.
Lupine, <i>Lupinus</i> hybrids	24–40	June–July	B, W, P, Y	FS, SS	WD	S	C	Dislike hot summers. Short-lived in Midwest.
Meadow rue, <i>Thalictrum aquilegifolium</i>	24–30	June–July	P, V, W	FS, SS	M, WD	L	M	Foliage like columbine. Male and female plants.

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Meadow sweet, <i>Filipendula vulgaris</i>	24–36	June–July	W, P	FS, SS	WD	L	E	Fleecy, graceful flowers. Prefers humusenriched soil.
Painted daisy, Pyrethrum, <i>Tanacetum coccineum</i>	12–24	June–July	P, R, W	FS	WD	L	C	Will not tolerate wet soils. Replant every 3 years.
Pasque flower, <i>Pulsatilla vulgaris</i>	6–10	April	B, W	FS	WD	S	M	For rock garden. Needs good drainage. No acid soil.
Peony, <i>Paeonia</i> hybrids	18–36	May–June	W, P, R	FS, SS	WD	L	E	Transplant in Sept. Plant 2–3 inches deep in rich soil.
Perennial salvia, <i>Salvia x superba</i>	18–24	June–July	B, V	FS	WD	L	E	Effective blue flower color.
Phlox, Creeping, <i>Phlox subulata</i>	3–5	April–May	P, L, W	FS	WD	S	M	Also called ground pink or thrift. Tolerates poor soil.
Phlox, Garden, <i>Phlox paniculata</i>	18–48	June–Sept.	R, P, L, W	FS, SS	WD	L	M	Many varieties available. Sometimes listed as <i>P. decussata</i> .
Pincushion flower, <i>Scabiosa caucasica</i>	18–24	June–July	B	FS	WD	L	M	Unique flower with conspicuous stamens.
Pink, Cottage, <i>Dianthus plumarius</i>	10–15	May–July	R, W, P	FS	WD	L	M	Very fragrant. Bluish gray foliage. Edging plant.
Pink, Maiden, <i>Dianthus deltoides</i>	4–9	May	R, P, W	FS	WD	S	M	Dwarf pink. Gradually spreads to form a green mat.
Poppy, Iceland, <i>Papaver nudicaule</i>	8–12	June	R, O, P, W	FS, SS	WD	S	M	Often grown as annual. Seeds started indoors will flower in first season.
Poppy, Oriental, <i>Papaver orientalis</i>	24–40	May–July	O, R, P, W	FS	WD	S	E	Needs good drainage. Place in protected spot, or mulch in winter.
Primula, Primrose, <i>Primula polyantha</i>	8–12	May	B, O, Y, R	SS	WD	S	M	Must be kept moist. Cannot survive summer heat and drought.
Red-hot poker, Tritoma, <i>Kniphofia</i> hybrids	36–48	July–Sept.	O, Y, P, W	FS	WD	S	E	Needs excellent drainage. Mulch in winter.
Rock soapwort, <i>Saponaria ocymoides</i>	5–10	June–July	P, W	FS	WD	S	M	Pruning back helps retain compact form. Needs good drainage.
Russian sage, <i>Perovskia atriplicifolia</i>	36–48	June–July	B	FS	WD	L	E	Uniquely colored, aromatic foliage. Good companion for plants with yellow flowers.
Sea lavender, <i>Limonium latifolium</i>	15–24	Aug.–Sept.	B, W	FS	WD	S	M	Sometimes called statice. Large decorative foliage.
Sedum, Stonecrop, <i>Sedum</i> sp.	4–24	June–frost	P, R, Y, W	FS	WD	S	E	Many species available with differing growth habit and flower color.
Shasta daisy, <i>Leucanthemum x superbum</i>	12–36	June–Aug.	W	FS	WD	L	M	Needs replanting every 2–3 years. Dwarf and tall forms available.
Snow-in-summer, <i>Cerastium tomentosum</i>	3–5	May–June	W	FS	WD	S	M	Small gray woolly leaves. Forms dense carpet. Needs excellent drainage.
Spiderwort, <i>Tradescantia virginiana</i>	8–24	May–Aug.	B, V, W	SS, S	M, WD	L	E	Easily grown. Roots easily from the nodes.
Stoke's aster, <i>Stokesia laevis</i>	12–30	Aug.–Sept.	B, W, P	FS	WD	S	M	Needs good drainage. Mulch in winter.
Sweet pea, Perennial, <i>Lathyrus latifolius</i>	60–96	June–Aug.	P, R, W	FS, SS	M, WD, D	L	E	Very easy to grow. May crowd out other plants.
Sweet William, <i>Dianthus barbatus</i>	6–15	May–June	R, P, W	FS	WD	S	E	Biennial that self-sows easily. An “old-fashioned” favorite.
Thrift, <i>Armeria maritima</i>	8–12	June–July	P, V, W	FS	WD	S	E	Needs good drainage. Mulch in winter. An everlasting.
Tickseed, <i>Coreopsis grandiflora</i>	24–36	June–July	Y, O	FS	WD	L	E	Tolerant of dry soils. Good for low maintenance areas.
Veronica, Speedwell, <i>Veronica</i> sp.	2–36	May–Sept.	B, W	FS	WD	L	E	Easy to grow. Species differ in growth habit.
Violet, <i>Viola</i> sp.	6–8	April–May	V, L, W, Y	FS, SS	WD, M	L	E	Forms a dense mat. Reseeds easily.
Yarrow, Sneezewort, <i>Achillea</i> sp.	2–36	June–Aug.	Y, P, R, W	FS	WD	L	E	Easy to grow, but should be replanted every 3–4 years.