



PLANNING TIPS  
PERENNIALS



## OUTWARD APPEARANCE

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# 1 Solitary perennials

Free-standing, impressive plants are called solitaires. Solitaires can be trees, shrubs or perennials. Unlike plants that are present all year, perennials have to develop their conspicuous forms over and over again and only look truly impressive in mid-summer. The solitary perennials must be: impressively large, persistent in the vegetation period and long-lived. In practice, varieties that close early or are short-lived are not considered solitaires.

The size of the plant as a criterion for selection depends on the space available; the same plant that is a solitary in a tiny inner court might be lost in a broad landscape.

Splendid flowers, leaf texture (=surface quality of the foliage) and leaf colour as well as a clearly distinct, more or less densely closed habit are further important characteristics, but are less important than the variables of size and persistence. Cultivars that need support, grow like thickets and are rampant are not considered solitaires.

Genus/species/variety	Size	Special characteristics
Achillea hybrids	100 - 120 cm	rigid peduncles, syncarpy attractive far into winter
Aconitum carmichaelii 'Arendsii'	110 - 130 cm	autumn flowers
Aconogonon speciosum 'Johanniswolke'	200 - 250 cm	long flowering period
Agastache Rugosa hybrids	70 - 90 cm	long flowering, bee pasture
Allium aflatunense 'Purple Sensation'	80 - 90 cm	stable, perennial, bee magnet
Aruncus dioicus	120 - 150 (200) cm	flowers, autumn colours
Aster novae-angliae a. o.	130 - 150 (180) cm	later flowers
Aster novi-belgii a. o.	120 - 140 cm	late, persistent flowers
Chelone obliqua	60 - 80 (100) cm	long flowering
Cimicifuga racemosa cordifolia	180 - 250 cm	towering inflorescences
Cimicifuga simplex 'Brunette'	140 - 200 cm	black-red-violet leaves, insect magnet
Delphinium elatum	150 - 180 cm	flowers twice, needs cutting
Echinops ritro	80 - 100 cm	attractive seed stand, insect pasture
Eupatorium rugosum 'Chocolate'	80 - 100 cm	ornamental foliage, insect pasture
Helenium cultorum 'Kugelsonne'	120 - 150 cm	many flowers
Inula magnifica	150 - 200 (250) cm	giant but doesn't need support
Ligularia przewalskii	120 - 150 (180) cm	many flowers
Macleaya cordata	180 - 200 (300) cm	rampant, only stopped with rhizome barrier
Rodgersia species	110 - 150 cm	long-lived, decorative leaves
Rudbeckia nitida 'Herbstsonne'	180 - 220 cm	late flowers
Verbascum olympicum	180 - 220 cm	short-lived, replant!

## Grasses

Bamboo in species and varieties	200 - 400 cm	evergreen, put up rhizome barrier
Calamagrostis acutiflora 'Karl Foerster'	120 - 170 cm	turns green early, spikes into autumn
Carex pendula	120 - 150 cm	evergreen to nearly-evergreen
Cortaderia selloana	100 - 250 (500) cm	late flowers, evergreen
Miscanthus giganteus	250 - 350 cm	dense leaf clusters, hardly flowering
Miscanthus sinensis 'Gracillimus'	140 - 170 cm	elegantly tilting, dense
Miscanthus sinensis 'Silberfeder'	150 - 220 cm	many flowers

Genus/species/variety	Size	Special characteristics
Molinia arundinacea 'Karl Foerster'	180 - 240 cm	transparent, attractive spikes
Molinia arundinacea 'Transparent'	150 - 180 cm	elegant, golden yellow in autumn
Panicum virgatum 'Heavy Metal'	up to 130 cm	shimmering stalks, blue-green
Pennisetum alopecuroides 'Compressum'	up to 110 cm	wide spreading horsts
Stipa gigantea	160 - 180 cm	translucent stalks, very stable

## Ferns

Dryopteris affinis	100 - 160	needs wind protection!
Osmunda regalis	50 - 150 (200)	moist to damp areas

# 2 Leader perennials

Leader perennials are the backbone of a perennial group. They set the tone for the group; their flower colour, their habit, and their size determine the character of the planting scheme.

Companion and filler perennials adapt to them, complement them, and subordinate themselves to them. Unlike a solitary perennial, a leader perennial that directs the view of the plants does not occur alone. The same type or variety can be repeated in groups of various sizes and in irregular distances rhythmically.

Depending on the size of the plant group, one plant genus is selected as the determining element, or several varieties of leader perennials are combined with one another. Thus, one plant genus can occur as the leader perennial in summer, with another taking over in autumn after the first has withered.

Like the solitary perennials, leader perennials have to be long-lived and clearly larger than their company. They must not wither and die too early and leave behind bare spots in the group.

Genus/species/variety	Size	Special characteristics
Achillea filipendulina varieties	70 - 120 cm	flowers long
Aconitum carmichaelii 'Arendsii'	110 - 130 cm	late flowers
Aconitum napellus and others	80 - 120 (150) cm	flowers in July, then neutral
Anemone japonica	60 - 120 cm	late flowers
Aruncus dioicus	120 - 150 (200) cm	attractive into winter
Aster divaricatus 'Tradescant'	up to 60 cm	compact clusters, clouds of flowers
Aster linosyris	50 - 60 cm	robust structural plant
Aster novae-angliae varieties	100 - 150 (180) cm	many flowers
Aster novi-belgii	80 - 140 cm	plentiful, long-lasting flowers
Aster sedifolius 'Nanus'	30 - 40 cm	rich flowering, bee pasture
Astilbe arendsii	70 - 100 cm	beautiful until autumn
Astrantia major	40 - 60 cm	reblooming in September
Bistorta officinalis 'Superbum'	60 - 80 cm	not rampant, stable
Cimicifuga species and varieties	150 - 200 (250) cm	late flowers





Genus/species/variety	Size	Special characteristics
Delphinium hybrids	70 - 200 cm	second flowers after cutting
Echinacea pallida	70 - 80 cm	upright, butterfly magnet
Echinops bannaticus 'Blue Glow'	100 - 120 cm	exotic
Helenium cultorum	70 - 150 cm	overflowing with flowers
Hemerocallis cultorumn	70 - 90 cm	early shots, autumn flowers
Hosta hybrid 'Royal Standard'	50 - 100 cm	early shoots, autumn colours
Hosta hybrids	50 - 80 cm	broad clump, autumn colours
Liatris spicata varieties	30 - 90 cm	flowers in the summer
Ligularia species and varieties	60 - 150 cm	decorative flowers and leaves
Lythrum salicaria	80 - 150 cm	endless propagation by seed!
Malva moschata	60 - 70 cm	short-lived, roaming with seeds
Monarda fistulosa	80 - 150 cm	flowers long
Paeonia lactiflora	80 - 100 (120) cm	plentiful flowers, autumn colours
Phlox paniculata varieties	70 - 140 cm	overflowing with flowers
Rodgersia species	60 - 120 cm	persistent, decorative leaves
Rudbeckia fulgida deamii	80 - 100 cm	dense clusters, all flowers in one level
Salvia species and varieties	(30)40 - 80 cm	aromatic, insect magnet
Sedum telephium 'Herbstfreude'	50 - 70 cm	for low groups, otherwise as company
Solidago sphacelata 'Golden Fleece'	40 - 60 cm	less rampant than known for the species
Verbena bonariensis 'Lollipop'®	40 - 60 cm	more compact as known for the species

## Grasses

Calamagrostis acutiflora 'Karl Foerster'	120 - 170 cm	turns green early, attractive into autumn
Calamagrostis arundinacea brachytricha	40 - 100 cm	attractive into autumn
Carex pendula	80 - 120 cm	evergreen to nearly-evergreen
Deschampsia cespitosa varieties	up to 100 cm	fine panicles
Festuca cinerea 'Elijah Blue'	40 - 60 cm	intense steel-blue
Festuca mairei	50 - 100 cm	attractive into autumn
Helictotrichon sempervirens	60 - 100 (150) cm	evergreen
Miscanthus sinensis 'Gracillimus'	140 - 170 cm	compact
Molinia arundinacea 'Karl Foerster'	70 - 180 (240) cm	transparent, only low partners
Molinia caerulea	50 - 120 cm	choose only low partners
Panicum virgatum 'Rehbraun'	60 - 120 cm	autumn colours
Pennisetum alopecuroides varieties	up to 140 cm	bottle brush-shaped panicles
Pennisetum orientale	60 - 70 cm	dark pink panicles

## Ferns

Athyrium filix - femina	50 - 100 cm	early shoots, autumn colours
Dryopteris affinis	100 - 160 cm	winter green, need wind protection!
Dryopteris filix - mas	50 - 120 cm	early shoots
Polystichum aculatum	60 - 80 cm	ornamental leaves
Polystichum setiferum	30 - 80 cm	for low groups, otherwise as company

## 3 Companion perennials

Companion perennials, as the name suggests, accompany leader perennials. They can be used with the same flowers, colour, habit, or texture (= surface quality of the leaves) or in contrast to the leader.

There are four types:

1. companion perennials that flower before the leaders,
2. companion perennials that flower with the leaders,
3. companion perennials that flower after the leaders,
4. neutral companion perennials that are "only" green.

The various types are defined by the flowering period and the appearance of the leader. Long-lived companion perennials are generally planted in the front or distributed over the whole area as a group for greater contrast so that the green stays into autumn. If companion perennials wither and die early, they are more often put in the middle or the background of the bed. There, they can wither and die behind their long-lived partners without being noticed and without causing gaps in the bed.

Genus/species/variety	Size	Special characteristics
Achillea Filipendula hybrids and varieties	70 - 120 cm	long into autumn
Achillea millefolium	30 - 70 cm	inconspicuous from August on
Achillea ptarmica 'Boule de Neige'	50 - 70 cm	long-lived, spreading afar
Aconitum species and varieties	80 - 100 cm	long-lived, somewhat lateflowers
Alchemilla species	30 - 50 cm	long-lived
Anchusa azurea 'Dropmore'	80 - 100 cm	inconspicuous or withering from July on
Anemone hupehensis varieties	50 - 70 cm	long-lived, broadening
Anemone japonica hybrids	60 - 100 cm	long-lived, late flowers
Aquilegia hybrids	50 - 60 cm	usually withering in June
Aquilegia vulgaris	30 - 70 cm	early feeding
Aruncus aethusifolius	25 - 30 cm	long-lived, autumn colours
Aster amellus	40 - 60 cm	long-lived
Aster divaricatus	50 - 60 cm	long-lived, large groups
Aster dumosus	30 - 50 cm	long-lived, covering large surfaces
Aster novi-belgii	80 - 120 (140) cm	long-lived, numerous flowers in autumn
Astilbe arendsii hybrids	50 - 100 cm	long-lived, autumn colours
Astrantia major varieties	50 - 70 cm	gradually broad
Bergenia cordifolia	30 - 60 cm	evergreen
Brunnera macrophylla	30 - 50 cm	very early shoots
Campanula latifolia macrantha	100 - 120 cm	on dry areas withering early
Campanula persicifolia varieties	60 - 80 cm	inconspicuous from August on
Centranthus ruber varieties	50 - 70 cm	long-lived, long flowering
Coreopsis grandiflora varieties	30 - 80 cm	long-lived
Delphinium belladonna	70 - 130 cm	secondflowers after cutting
Dicentra spectabilis + 'Alba'	60 - 90 cm	wither from June on
Digitalis grandiflora	50 - 100 cm	long-lived
Digitalis purpurea 'Gloxiniaeflora'	120 - 150 cm	loose appearance with perpagation by seed
Doronicum orientale 'Magnificum'	40 - 60 cm	wither from June on
Echinacea purpurea	70 - 90 cm	withering from September on
Echinops bannaticus 'Blue Glow'	100 - 120 cm	better in wild beds
Euphorbia amygdaloides 'Purpurea'®	30 - 50 cm	ornamental leaves, wintergreen





### 3 Companion perennials

Genus/species/variety	Size	Special characteristics
Euphorbia polychroma	30 - 50 cm	early flowers, autumn colours
Geranium species and varieties	60 - 70 cm	needs staking after flowering
Helenium cultorum	80 - 150 cm	long-lived, better as leader
Helleborus Orientalis hybrids	30 - 50 cm	evergreen, early flowering
Hemerocallis cultorum	40 - 100 cm	very early shoots, autumn colours
Heuchera hybrids	30 - 50 cm	only up front
Hosta species and varieties	30 - 100 cm	long-lived, autumn colours
Iris Barbata hybrids	40 - 70 cm	evergreen
Kniphofia hybrids	50 - 100 cm	long-lived, evergreen
Lathyrus vernus	30 - 40 cm	early flowering insect pasture
Lavandula angustifolia varieties	30 - 60 cm	evergreen, subshrub
Ligularia species	60 - 150 cm	better as leader
Lychnis coronaria varieties	60 - 80 cm	heavily seeding
Lysimachia clethroides	60 - 100 cm	late shoots, autumn colours
Monarda fistulosa	80 - 120 cm	long-lived
Nepeta faassenii varieties	60 - 90 cm	needs a lot of space
Paeonia lactiflora	80 - 100 cm	early shoots, autumn colours
Paeonia officinalis 'Rubra Plena'	70 - 80 cm	not attractive after flowering
Phlox divaricata 'Blue Moon'	40 - 50 cm	long flowering, fragrant
Phlox paniculata varieties	70 - 90 cm	long-lived, larger as leader
Platycodon grandiflorus 'Mariesii'	50 - 60 cm	long flowering period
Rudbeckia fulgida 'Goldsturm'	70 - 90 cm	long-lived, flowers long
Salvia nemorosa varieties	40 - 60 cm	secondflowers after cutting
Santolina chamaecyparissus	40 - 50 cm	evergreen, tolerates pruning
Scabiosa columbaria varieties	30 - 40 cm	permanent flowering
Sedum spectabile 'Rosenteller'	30 - 40 cm	long-lived, lateflowers
Sedum telephium 'Herbstfreude'	50 - 70 cm	attractive into winter
Solidago caesia	80 - 90 cm	better in wild gardens
Stachys byzantina 'Big Ears®'	40 - 60 cm	wintergreen, decorative leaves
Symphytum azureum	50 - 60 cm	not attractive after May
Teucrium lucidrys	30 - 40 cm	evergreen, subshrub
Verbascum species	60 - 180 (220) cm	short-lived, roaming with seeds
Veronica austriaca teucrium 'Königsblau'	30 - 40 cm	just plant here and there, small groups
Veronica longifolia	60 - 100 cm	neutral after July

#### Grasses

Bouteloua gracilis	20 - 40 cm	grass-like cushions
Carex caryophylla varieties	30 cm	evergreen, long-lived
Carex morrowii 'Variegata'	30 - 40 cm	evergreen, long-lived
Carex conica 'Snowline'®	20 - 30 cm	leaves dark green/white
Carex grayi	30 - 60 cm	decorative seed stands
Carex sylvatica	40 - 50 cm	evergreen
Carex umbrosa	20 - 30 cm	evergreen
Deschampsia cespitosa	30 - 50 cm	long-lived, evergreen
Festuca gautieri varieties	20 - 35 cm	evergreen
Festuca mairei	40 - 50 (80) cm	long-lived, sometimes leader
Helictotrichon sempervirens	40 - 60 cm	long-lived, evergreen
Koeleria glauca	15 - 40 cm	nearly evergreen
Melica ciliata	30 - 50 cm	fine syncarpies
Molinia caerulea varieties	25 - 50 cm	evergreen
Panicum virgatum 'Rehbraun'	60 - 80 cm	long-lived, conspicuous autumn colours
Pennisetum alopecuroides 'Hamel'n'	30 - 40 cm	long-lived, autumn colours into winter
Sesleria caerulea	15 - 25 cm	winter green
Sesleria heufleriana	40 - 70 cm	greyish green, winter green

Genus/species/variety	Size	Special characteristics
Stipa pennata	30 - 60 cm	fine leaves
Stipa tenuissima	30 - 40 cm	often short lived, roaming with seeds

#### Ferns

Athyrium filix - femina	30 - 100 cm	long-lived, also as leader
Blechnum spicant	30 - 40 cm	winter green
Dryopteris erythrosora	50 - 80 cm	shoots yellow-orange-brown
Dryopteris filix-mas	30 - 120 cm	long-lived, also as leader
Phyllitis scolopendrium	20 - 40 (60) cm	long-lived, winter green
Polystichum setiferum varieties	30 - 80 cm	long-lived





## 4 Ground-covering perennials

For uniform greenery on large surfaces, use perennials that spread flatly and closely using rhizomes (subterranean runners) and/or stolons (layers above ground), forming large colonies. Sometimes, you can use perennials that grow quickly and densely with profuse seed production and prevent self-settling plants from invading with their competitiveness.

True cushion plants are not suited for covering large areas. They do not give up their compact, domed habits and therefore cannot completely overtake the areas to be settled. Cushion plants give aggressive, spontaneous vegetation the chance to settle and expand.

Large areas used to be covered with just one type of plant. Nowadays, beds are planted like mosaics. For large or small groups, ground-cover perennials of equal size and equal growth rates can be mixed to provide a lively bed of vegetation. In such a bed, spontaneous vegetation that finds its way in would not be immediately annoying as it would be if there were only one type of plant in the bed.

Greatly varying sizes and growth rates will, however, create an imbalance between the partners; strong-growing perennials will dominate extremely flat ones and suppress them.

Genus/species/variety	Use in small spaces	Use in large spaces	Plants per m <sup>2</sup>
Acaena buchananii	+		7 - 12
Acaena microphylla varieties	+		7 - 12
Achillea tomentosa	+		7 - 12
Ajuga reptans varieties	+		9 - 16
Alchemilla epipsila		+	7 - 12
Alchemilla mollis		+	4 - 5
Alchemilla xanthochlora	+	+	9 - 12
Anaphalis triplinervis varieties	+		7 - 9
Antennaria dioica 'Rubra'	+		12 - 25
Arabis caucasica 'Schneehaube'	+		9 - 12
Arabis procurrens 'Glacier'	+		9 - 18
Artemisia stelleriana	+		5 - 7
Asarum europaeum	+		9 - 16
Aster divaricatus		+	3 - 4
Aster dumosus varieties	+	+	5 - 9
Astilbe chinensis pumila	+	+	5 - 9
Astrantia major varieties		+	4 - 7
Azorella trifurcata	+		12 - 16
Bergenia cordifolia hybrids	+	+	5 - 7
Brunnera macrophylla		+	5 - 7
Buglossoides purpurocaerulea		+	5 - 9
Campanula cochleariifolia	+		20 - 25
Campanula portenschlagiana varieties	+	+	12 - 16
Campanula rotundifolia	+	+	9 - 11
Centaurea montana		+	4 - 7
Cerastium tomentosum 'Silberteppich'	+		7 - 12

Genus/species/variety	Use in small spaces	Use in large spaces	Plants per m <sup>2</sup>
Ceratostigma plumbaginoides	+	+	9 - 16
Chrysogonum virginianum	+		3 - 5
Corydalis lutea	+		9 - 18
Dianthus deltoides varieties	+		7 - 12
Dicentra eximia	+	+	7 - 12
Dryas suendermannii	+	+	9 - 12
Epimedium species and varieties	+	+	9 - 16
Euphorbia amygdaloides robbiae*		+	6 - 8
Fragaria vesca vesca	+		12 - 25
Galium odoratum	+	+	9 - 16
Geranium cantabrigiense varieties	+	+	7 - 16
Geranium cinereum 'Ballerina'	+	+	16 - 25
Geranium endressii		+	5 - 9
Geranium himalayense varieties		+	3 - 6
Geranium macrorrhizum varieties		+	4 - 9
Geranium nodosum	+	+	9 - 12
Geranium phaenum	+	+	5 - 7
Geranium renardii	+		5 - 12
Geranium sanguineum		+	5 - 12
Geum coccineum hybrids	+	+	9 - 16
Helianthemum cultorum	+		5 - 9
Iberis sempervirens varieties	+		5 - 7
Lamiaeum galeobdolon 'Florentinum'		+	5 - 7
Lamium maculatum varieties	+	+	7 - 9
Liatris spicata varieties	+	+	5 - 7
Liriope muscari varieties	+	+	12 - 16
Lysimachia nummularia	+		12 - 18
Matricaria caucasica	+		12 - 16
Nepeta faassenii	+	+	7 - 12
Oenothera missouriensis	+		5 - 7
Omphalodes verna varieties	+	+	7 - 16
Ophiopogon planiscapus 'Niger'	+	+	12 - 16
Phlomis russeliana		+	4 - 5
Polygonum affine 'Darjeeling Red'		+	7 - 16
Potentilla aurea	+		9 - 16
Potentilla neumanniana		+	12 - 16
Prunella grandiflora	+		9 - 16
Pulmonaria species and varieties	+		9 - 12
Sedum acre	+		12 - 25
Sedum album 'Coral Carpet'	+	+	9 - 18
Sedum floriferum 'Weihenstephaner Gold'	+	+	9 - 16
Sedum hybridum 'Immergrünchen'	+	+	9 - 16
Sedum spurium varieties	+	+	9 - 16
Stachys byzantina varieties	+	+	7 - 12
Symphytum grandiflorum		+	5 - 9
Tellima grandiflora		+	5 - 7
Thymus species	+		12 - 25
Tiarella cordifolia	+	+	9 - 16
Veronica spicata incana	+		9 - 18
Vinca major		+	5 - 7
Vinca minor varieties	+	+	7 - 12
Viola labradorica	+	+	15 - 20
Viola odorata 'Königin Charlotte'	+	+	12 - 15





## 4 Ground-covering perennials

Genus/species/variety	Use in small spaces	Use in large spaces	Plants per m <sup>2</sup>
<b>Ground-covering perennials</b>			
<i>Viola sororia</i> 'Albiflora'	+	+	12 - 15
<i>Waldsteinia geoides</i>	+	+	7 - 12
<i>Waldsteinia ternata</i>	+	+	9 - 16
<b>Grasses</b>			
<i>Ammophila arenaria</i>		+	7 - 9
<i>Carex foliosissima</i> varieties	+	+	7 - 9
<i>Hakonechloa macra</i>	+	+	9 - 12
<i>Leymus arenarius</i>		+	5 - 7

## 5 Flowering calendar

The flowering period is not a set time. Rather, it depends on the weather and the temperature, especially in the transitional seasons of early spring and autumn. In spring, the standard flower period can be up to four weeks earlier or later.

til March	Flowering time	Genus/species/variety	Flower colour
	XII - II/III	<i>Helleborus niger</i>	milky white with green
	II - IV	<i>Helleborus Orientalis</i> hybrids	white, pink, red

### from March

III - IV	<i>Anemone nemorosa</i>	white, light pink on the outside
III - IV	<i>Epimedium perralderianum</i> 'Frohnleiten'	yellow
III - IV	<i>Pulsatilla vulgaris</i>	violet to violet blue
III - IV (IX)	<i>Viola odorata</i> 'Königin Charlotte'	blue-violet
III - IV/IX	<i>Caltha palustris</i>	golden yellow
III - V	<i>Alyssum montanum</i> 'Berggold'	bright yellow
III - V	<i>Omphalodes verna</i>	sky blue
III - V	<i>Omphalodes verna</i> 'Alba'	white
III - V	<i>Primula elatior</i>	light yellow
III - V	<i>Pulmonaria angustifolia</i> 'Azurea'	gentian blue
III - V	<i>Pulmonaria rubra</i>	coral red
III - V	<i>Symphytum grandiflorum</i>	cream yellow

### from April

IV - V	<i>Ajuga reptans</i>	purple-blue
IV - V	<i>Ajuga reptans</i> 'Atropurpurea'	violet
IV - V	<i>Alyssum saxatile</i> 'Compactum'	yellow
IV - V	<i>Arabis arendsii</i> 'Compinkie'	light to dark pink
IV - V	<i>Arabis caucasica</i> 'Schneehaube'	white
IV - V	<i>Arabis procurrens</i> 'Glacier'	white
IV - V	<i>Aubrieta cultorum</i> 'Royal Red'	magenta-red
IV - V	<i>Bergenia cordifolia</i>	carmine

from April	Flowering time	Genus/species/variety	Flower colour
	IV - V	<i>Bergenia cordifolia</i> 'Rotblum'	carmine
	IV - V	<i>Bergenia</i> Hybride 'Silberlicht'	white with carmine
	IV - V	<i>Brunnera macrophylla</i>	pure blue
	IV - V	<i>Brunnera macrophylla</i> 'Jack Frost'®	light blue
	IV - V	<i>Buglossoides purpurcaerulea</i>	gentian blue
	IV - V	<i>Epimedium pinnatum</i> colchicum	bright yellow
	IV - V	<i>Epimedium versicolor</i> 'Sulphureum'	sulphur yellow
	IV - V	<i>Epimedium warleyense</i> 'Orangekönigin'	bright-orange
	IV - V	<i>Epimedium youngianum</i> 'Niveum'	pale white
	IV - V	<i>Euphorbia myrsinites</i>	yellow-green
	IV - V	<i>Fragaria vesca</i>	white
	IV - V	<i>Galium odoratum</i>	white
	IV - V	<i>Lamium maculatum</i> 'Chequers'	carmine pink
	IV - V	<i>Lamium maculatum</i> 'Silbergroschen'	crimson-pink
	IV - V	<i>Lathyrus vernus</i>	violet-red-blue
	IV - V	<i>Phlox subulata</i> 'G. F. Wilson'	light purple-blue
	IV - V	<i>Phlox subulata</i> 'Temiskaming'	crimson red
	IV - V	<i>Phlox subulata</i> 'White Delight'	pure white
	(III) IV - V	<i>Potentilla neumanniana</i>	golden yellow
	IV - V	<i>Primula veris</i>	golden yellow
	IV - V	<i>Pulmonaria saccharata</i> 'Sissinghurst White'	pure white
	IV - V	<i>Vinca major</i>	blue
	IV - V	<i>Viola labradorica</i>	light purple
	IV - V	<i>Waldsteinia geoides</i>	yellow
	IV - V	<i>Waldsteinia ternata</i>	yellow
	IV - VI	<i>Anemone sylvestris</i>	white
	IV - VI	<i>Euphorbia</i> species and varieties	yellow bracts
	IV - VI	<i>Heuchera Micrantha</i> hybrids	white
	IV - VI	<i>Phlox divaricata</i> 'Blue Moon'	blue-violet
	IV - VI	<i>Polemonium caeruleum</i>	blue
	IV - VI	<i>Symphytum azureum</i>	sky blue
	IV - VI	<i>Vinca minor</i>	blue
	IV - VII/IX	<i>Chrysogonum virginianum</i>	light to golden yellow
	IV - IX	<i>Eupatorium rugosum</i> 'Chocolate'	white

### from May

V	<i>Chrysanthemum leucanthemum</i> 'Maikönigin'	milky white
V	<i>Convallaria majalis</i>	milky white
V	<i>Paeonia officinalis</i> 'Rubra Plena'	blood-red
V - VI	<i>Allium aflatunense</i> 'Purple Sensation'	purple-violet
V - VI	<i>Antennaria dioica</i> 'Rubra'	pink-red
V - VI	<i>Aquilegia</i> Hybride 'Blaue Töne'	intense blue
V - VI	<i>Aquilegia vulgaris</i>	blue to red-violet
V - VI	<i>Aruncus aethusifolius</i>	milky white
V - VI	<i>Campanula glomerata</i> 'Alba'	pure white
V - VI	<i>Cerastium tomentosum</i> 'Silberteppich'	pale white
V - VI	<i>Dicentra spectabilis</i>	pink to carmine
V - VI	<i>Dicentra spectabilis</i> 'Alba'	pure white
V - VI	<i>Dryas suendermannii</i>	cream white to light yellow
V - VI	<i>Geranium himalayense</i> 'Gravetye'	bright blue
V - VI	<i>Geranium macrorrhizum</i> 'Spessart'	white with light pink
V - VI	<i>Geranium magnificum</i>	purpurviolet

Explanation of symbols: I - XII = flowering period month from January (= I) to December (= XII)





from May	Flowering time	Genus/species/variety	Flower colour	from June	Flowering time	Genus/species/variety	Flower colour
	V - VI	<i>Geranium phaeum</i>	chocolate brown to purple		VI - VII	<i>Achillea Clypeolata</i> hybr. 'Moonshine'	sulphurous yellow
	V - VI	<i>Geranium pratense</i> 'Johnsons Blue'	purple-blue		VI - VII	<i>Achillea Filipendulina</i> hybrid 'Credo'	light cream-yellow
	V - VI	<i>Geranium sanguineum</i>	carmine to carmine-red		VI - VII	<i>Achillea Millefolium</i> hybrid 'Terracotta'	orange-brown
	V - VI	<i>Geum coccineum</i> 'Borisii'	orange-red		VI	<i>Aquilegia alpina</i>	pure blue
	V - VI	<i>Heuchera sanguinea</i> 'Leuchtkäfer'	dark scarlet		VI	<i>Dianthus deltoides</i> 'Alba'	white with pink mottling
	V - VI	<i>Heuchera sanguinea</i> 'Red Spangles'	bright red		VI	<i>Hemerocallis cultorum</i> 'Corky'	golden yellow
	V - VI	<i>Iris pseudacorus</i>	yellow		VI - VII	<i>Achillea millefolium</i> 'Cerise Queen'	carmine
	V - VI	<i>Lamium orvala</i>	brown-pink		VI - VII	<i>Achillea tomentosa</i> 'Aurea'	golden yellow
	V - VI	<i>Lamiastrum galeobdolon</i> 'Florentinum'	light yellow		VI - VII	<i>Aconitum napellus</i>	dark blue
	V - VI	<i>Lysimachia nummularia</i>	yellow		VI - VII	<i>Alchemilla epipsila</i>	greenish yellow
	V - VI	<i>Paeonia lactiflora</i> 'Karl Rosenfield'	dark wine-red		VI - VII	<i>Anaphalis triplinervis</i> 'Sommerschnee'	milky white
	V - VI	<i>Paeonia lactiflora</i> 'Immaculée'	white, yellow in the centre		VI - VII	<i>Anchusa azurea</i> 'Dropmore'	bright blue
	V - VI	<i>Paeonia lactiflora</i> 'Sarah Bernhardt'	light silvery pink		VI - VII	<i>Artemisia Ludoviciana</i> 'Silver Queen'	grey
	V - VI	<i>Polygonatum multiflorum</i>	greenish white		VI - VII	<i>Aruncus dioicus</i>	cream-white
	V - VI	<i>Saxifraga urbium</i> 'Clarence Elliott'	pink		VI - VII	<i>Astrantia major</i>	silvery white with pink
	V - VI	<i>Tellima grandiflora</i>	greenish pink		VI - VII	<i>Astrantia major</i> 'Roma®'	silvery pink
	V - VI	<i>Thymus doerfleri</i> 'Bressingham Seedling'	pink		VI - VII	<i>Azorella trifurcata</i>	green-yellow
	V - VI	<i>Tiarella cordifolia</i>	pale white with pink		VI - VII	<i>Bistorta officinalis</i> 'Superbum'	light pink
	V - VI	<i>Veronica austriaca</i> <i>teucrium</i> 'Königsblau'	bright blue		VI - VII	<i>Campanula carpatica</i> 'Blaue Clips'	violet blue
	V - VI	<i>Viola sororia</i> 'Albiflora'	white		VI - VII	<i>Campanula carpatica</i> 'Weiße Clips'	pure white
	V - VII	<i>Centaurea montana</i>	blue		VI - VII	<i>Campanula cochleariifolia</i> 'Bavaria Blue'	intense blue
	V - VII	<i>Geranium macrorrhizum</i> 'Ingwersen'	light to pale pink		VI - VII	<i>Campanula latifolia</i> <i>macrantha</i>	blueviolet
	V - VII	<i>Geranium macrorrhizum</i> 'Spessart'	whitish pink		VI - VII	<i>Campanula persicifolia</i> 'Grandiflora Alba'	pure white
	V - VII	<i>Geum coccineum</i> 'Borrisii'	bright orange		VI - VII	<i>Campanula persicifolia</i> 'Grandiflora Coerulea'	porcelain blue
	V - VII	<i>Gypsophila repens</i> 'Rosea'	pink		VI - VII	<i>Delphinium grandiflorum</i> 'Blauer Zwerg'	bright - sky blue
	V - VII	<i>Potentilla aurea</i>	yellow		VI - VII	<i>Dianthus deltoides</i> 'Brilliant'	bright - ruby red
	V - VI	<i>Saxifraga urbium</i>	white		VI - VII	<i>Dicentra eximia</i>	crimson-pink
	V - VII (IX)	<i>Geranium endressii</i> varieties	dark pink		VI - VII	<i>Digitalis purpurea</i> 'Gloxiniaeflora'	pink, carmine, crimson
	V - VII (IX)	<i>Geranium gracile</i> 'Sirak'	violet pink		VI - VII	<i>Geranium catabrigiense</i> 'Biokovo'	white with pink shimmer
	V - VIII	<i>Gypsophila repens</i> 'Rosenschleier'	pink		VI - VII	<i>Geranium catabrigiense</i> 'Cambridge'	dark pink
	V/VIII	<i>Iris barbata</i> <i>elatior</i> 'Lovely Again'	lavender		VI - VII	<i>Geranium clarkei</i> 'Kashmir White'	white with pink veins
	V - VIII	<i>Nepeta faassenii</i> 'Alba'	white		VI - VII	<i>Geranium renardii</i>	whitish pink
	V - IX	<i>Corydalis lutea</i>	light yellow to yellow		VI - VII	<i>Geranium renardii</i> 'Philippe Vapelle'	blueviolet
	V - IX	<i>Fragaria vesca</i> <i>sempervirens</i> varieties	white/pink		VI - VII	<i>Geum chiloense</i> 'Goldball'	yellow
	V - IX	<i>Helianthemum cultorum</i> 'Bronzeteppich'	brown orange		VI - VII	<i>Hemerocallis cultorum</i> 'Pink Damask'	pink with salmon-orange
	V - IX	<i>Helianthemum cultorum</i> 'Cerise Queen'	carmine		VI - VII	<i>Hemerocallis cultorum</i> 'Stella de Oro'	golden yellow
	V - IX	<i>Helianthemum cultorum</i> 'Lawrensons Pink'	intense pink		VI - VII	<i>Hosta crispula</i>	light purple
	V - IX	<i>Helianthemum cultorum</i> 'Rubin'	ruby red		VI - VII	<i>Iberis sempervirens</i> varieties	bright white
	V - IX	<i>Helianthemum cultorum</i> 'Snow Queen'	white		VI - VII	<i>Lychnis coronaria</i> 'Alba'	white
	V - IX	<i>Helianthemum cultorum</i> 'Sterntaler'	golden yellow		VI - VII	<i>Rodgersia aesculifolia</i>	cream-white
	V - IX	<i>Nepeta faassenii</i> and varieties	purple		VI - VII	<i>Sanguisorba officinalis</i> 'Tanna'	crimson
	V - X	<i>Geranium nodosum</i>	pink, with dark veins		VI - VII	<i>Sagina subulata</i>	white
	V - VI/IX	<i>Salvia pratensis</i>	medium blue		VI - VII	<i>Sedum acre</i>	bright yellow
	V - X	<i>Teucrium lucidrys</i>	crimson-pink		VI - VII	<i>Sedum album</i> 'Coral Carpet'	white with pink shimmer
					VI - VII	<i>Sedum fliferum</i> 'Weihestephaner Gold'	golden yellow
					VI - VII	<i>Sedum hybridum</i> 'Immergrünchen'	yellow
					VI - VII	<i>Thalictrum aquilegifolium</i>	violet-pink
					VI - VII	<i>Veronica spicata</i> <i>incana</i>	dark blue
					VI - VII/VIII	<i>Gypsophila paniculata</i> 'Schneeflocke'	pale white
					VI - VII/IX	<i>Alchemilla mollis</i>	yellow-green
					VI - VIII	<i>Alchemilla xanthochlora</i>	greenish yellow
					VI - IX	<i>Bupththalmum salicifolium</i>	yellow

Explanation of symbols: I - XII = flowering period month from January (= I) to December (= XII)







## 5 Flowering calendar

from June	Flowering time	Genus/species/variety	Flower colour	from July	Flowering time	Genus/species/variety	Flower colour
	VI - VII/IX	<i>Delphinium belladonna</i> 'Casa Blanca'	white		VII	<i>Artemisia schmidtiana</i> 'Nana'	grey-white
	VI - VII/IX	<i>Geum</i> Hybride 'Dolly North'	orange-red		VII	<i>Astilbe Arendsii</i> 'Fanal'	ruby red
	VI - VIII	<i>Campanula glomerata</i> 'Dahurica'	deep violet blue		VII	<i>Hosta sieboldiana</i> 'Elegans'	whitish purple
	VI - VIII	<i>Campanula portenschlagiana</i> 'Birch'	violet		VII - VIII	<i>Aster amellus</i> 'Rudolf Goethe'	lavender blue
	VI - VIII	<i>Campanula poscharskyana</i> 'Blauranke'	light violet blue		VII - VIII	<i>Aster amellus</i> 'Sternkugel' a.o.	light violet
	VI - IX	<i>Centranthus ruber</i> 'Albus'	white		VII - VIII	<i>Astilbe Arendsii</i> 'Brautschleier'	white to cream-white
	VI - IX	<i>Chelone obliqua</i>	purple pink		VII - VIII	<i>Astilbe chinensis</i> taquetii 'Purpurlanze'	crimson red
	VI - VIII	<i>Coreopsis lanceolata</i> 'Sterntaler'	golden yellow with red browns		VII - VIII	<i>Astilbe</i> Glaberrima hybrid 'Sprite'	pearl pink
	VI - IX	<i>Dianthus carthusianorum</i>	crimson		VII - VIII	<i>Campanula rotundifolia</i> 'Olympica'	blue-violet
	VI - VIII	<i>Digitalis grandiflora</i>	sulphur yellow		VII - VIII	<i>Campanula trachelium</i>	violet-blue
	VI - VIII	<i>Echinacea purpurea</i> 'Alba'	white		VII-IX	<i>Echinacea purpurea</i>	carmine
	VI - VIII	<i>Echinacea purpurea</i> 'Fatal Attraction®'	dark crimson-pink		VII - VIII	<i>Helenium cultorum</i> 'Moerheim Beauty'	mahogany-red
	VI - VIII	<i>Echinacea purpurea</i> 'Magnus'	carmine		VII - VIII	<i>Helenium cultorum</i> 'Waltraud'	copper-red with yellow
	VI - VIII	<i>Linum perenne</i> 'Saphir'	bright blue		VII - VIII	<i>Hemerocallis cultorum</i> 'Sammy Russel'	tile-red
	VI - VIII	<i>Lysimachia punctata</i>	yellow		VII - VIII	<i>Hosta fortunei</i> 'Aureomarginata'	light violet
	VI - VIII	<i>Lythrum salicaria</i>	carmine		VII - VIII	<i>Hosta</i> 'Royal Standard'	milky white
	VI - VIII	<i>Nuphar lutea</i>	yellow		VII - VIII	<i>Inula ensifolia</i>	yellow
	VI - VIII	<i>Nymphaea alba</i>	milky white		VII - VIII	<i>Inula magnifica</i>	golden yellow
	VI - VIII	<i>Nymphaea</i> Hybride 'James Brydon'	carmine		VII - VIII	<i>Lavandula angustifolia</i> 'Dwarf Blue'	deep blue
	VI - VIII	<i>Nymphaea</i> Hybride 'Marliacea Chromatella'	light yellow		VII - VIII	<i>Lavandula angustifolia</i> varieties	purple to violet
	VI - VIII	<i>Nymphaea odorata</i> 'Rosennymphé'	intense pink, light pink		VII - VIII	<i>Liatris spicata</i> 'Floristan Violet'	crimson-violet
	VI - VIII	<i>Phlomis russeliana</i>	light yellow		VII - VIII	<i>Macleaya cordata</i>	cream-white
	VI - VIII	<i>Platycodon grandiflorus</i> 'Mariesii'	blueviolet		VII - VIII	<i>Phlox paniculata</i> 'Starfire'	bright tile-red
	VI - VIII	<i>Primula bullesiana</i>	salmon-pink, whitish pink, yellow, golden yellow-orange, apricot, orange, salmon		VII - VIII	<i>Santolina chamaecyparissus</i>	yellow
	VI - VIII	<i>Prunella grandiflora</i>	crimson-violet		VII - VIII	<i>Sedum spurium</i> 'Album Superbum'	white
	VI - VIII	<i>Ranunculus lingua</i>	yellow		VII - VIII	<i>Sedum spurium</i> 'Fuldaglut'	carmine
	VI - VIII	<i>Sagittaria sagittifolia</i>	white		VII - VIII	<i>Veronica longifolia</i>	light blue
	VI - VIII	<i>Stratiotes aloides</i>	white		VII/IX	<i>Delphinium elatum</i> 'Finsteraarhorn'	violet blue with black
	VI - VIII	<i>Thymus serpyllum</i> 'Coccineus'	crimson red		VII - IX	<i>Achillea ptarmica</i> 'Boule de Neige'	white
	VI - VIII	<i>Verbascum olympicum</i>	bright yellow		VII - IX	<i>Agastache rugosa</i> hybr. 'Black Adder®'	dark violet
	VI - VIII/IX	<i>Delphinium belladonna</i> 'Atlantis'	dark blue-violet		VII - IX	<i>Butomus umbellatus</i>	pink
	VI - IX	<i>Achillea filipendulina</i> varieties	golden yellow		VII - IX	<i>Echinacea pallida</i>	light pink
	VI - IX	<i>Aconogonon speciosum</i> 'Johanniswolke'	cream-white		VII - IX	<i>Echinacea purpurea</i>	carmine
	VI - IX	<i>Calamintha nepeta</i>	whitish purple		VII - IX	<i>Echinops bannaticus</i> 'Blue Glow'	intense steel blue
	VI - IX	<i>Centranthus ruber</i> 'Coccineus'	carmine pink		VII - IX	<i>Echinops ritro</i>	steel blue
	VI - IX	<i>Coreopsis verticillata</i> 'Moonbeam'	light yellow		VII - IX	<i>Eryngium planum</i>	steel blue
	VI - IX	<i>Coreopsis verticillata</i> 'Zagreb'	golden yellow		VII - IX	<i>Heliopsis scabra</i> 'Goldgefieder'	golden yellow
	VI - IX	<i>Geranium cinereum</i> 'Ballerina'	purple-violet		VII - IX	<i>Heliopsis scabra</i> 'Spitzentänzerin'	orange-yellow
	VI - IX	<i>Malva moschata</i>	pink		VII - IX	<i>Kniphofia</i> hybrids	yellow to orange-yellow, orange-yellow to orange, orange-red to red
	VI - IX	<i>Oenothera missouriensis</i>	light to citrus yellow		VII - IX	<i>Liatris spicata</i> 'Floristan Weiß'	white
	VI - IX	<i>Origanum vulgare</i> 'Compactum'	violet-pink		VII - IX	<i>Lysimachia clethroides</i>	white
	VI - IX	<i>Polygonum affine</i> 'Darjeeling Red'	pink to crimson-pink		VII - IX	<i>Monarda</i> hybrid 'Cambridge Scarlet'	scarlet
	VI - IX	<i>Alisma plantago</i>	white to whitish pink		VII - IX	<i>Monarda</i> hybrid 'Croftway Pink'	salmon pink
	VI - X	<i>Filipendula ulmaria</i>	cream-white		VII - IX	<i>Monarda</i> hybrid 'Prärienacht'	deep crimson red
	VI - X (XI)	<i>Geranium endressii</i>	pink		VII - IX	<i>Origanum laevigatum</i> 'Herrenhausen'	red-violet
					VII - IX	<i>Rudbeckia fulgida</i> deamii	golden yellow
					VII - IX	<i>Rudbeckia fulgida</i> 'Goldsturm'	golden yellow with black
					VII - IX	<i>Solidago sphacelata</i> 'Golden Fleece'	yellow
					VII - X	<i>Bistorta amplexicaulis</i> 'J. S. Caliente®'	dark red
					VII - X	<i>Scabiosa columbaria</i> varieties	blue-violet
					VII - X	<i>Ophiopogon planiscapus</i> 'Niger'	white
					VII - X	<i>Verbena bonariensis</i> 'Lollipop®'	violet

Explanation of symbols: I - XII = flowering period month from January (= I) to December (= XII)





from August	Flowering time	Genus/species/variety	Flower colour
	VIII	<i>Hosta lancifolia</i>	crimson-violet
	VIII	<i>Hosta Tardiflora</i> hybrid	lavender
	VIII	<i>Hosta ventricosa</i>	crimson-violet
	VIII	<i>Phlox paniculata</i> 'Eventide'	light purple-blue
	VIII	<i>Phlox paniculata</i> varieties	pink to carmine
	VIII	<i>Phlox paniculata</i> 'Kirmesländler'	white with pink bud
	VIII - IX	<i>Anemone hupehensis</i> 'Septembercharme'	light pink-carmine
	VIII - IX	<i>Anemone Japonica</i> hybrid	pure white
	VIII - IX	<i>Aster amellus</i> 'Lady Hindlip'	pink
	VIII - IX	<i>Aster divaricatus</i>	pale white
	VIII - IX	<i>Aster divaricatus</i> 'Tradescant'	white
	VIII - IX	<i>Aster sedifolius</i> 'Nanus'	blue-violet
	VIII - X	<i>Aster linosyris</i>	golden yellow
	VIII - IX	<i>Astilbe chinensis</i> pumila	violet-pink
	VIII - IX	<i>Cimicifuga racemosa</i> cordifolia	cream-white
	VIII - IX	<i>Helenium</i> hybrid 'Kugelsonne'	yellow
	VIII - IX	<i>Hosta</i> hybrid 'Sum and Substance'	purple to lavender blue
	VIII - IX	<i>Ligularia</i> in species and varieties	yellow to golden yellow
	VIII - IX	<i>Phlox paniculata</i> 'Nymphenburg'	white
	VIII - IX	<i>Phlox paniculata</i> 'Pax'	pure white
	VIII - IX	<i>Rudbeckia nitida</i> 'Herbstsonne'	yellow
	VIII - IX	<i>Sedum spectabile</i> 'Carl'	dark pink
	VIII - IX	<i>Sedum telephium</i> 'Matrona'	pink to brownish-pink
	VIII - X	<i>Liriope muscari</i> varieties	blue violet

from September	Flowering time	Genus/species/variety	Flower colour
	IX	<i>Cimicifuga ramosa</i> 'Atropurpurea'	white with pink shimmer
	IX - X	<i>Aconitum carmichaelii</i> 'Arendsii'	violet blue
	IX - X	<i>Anemone Japonica</i> 'Prinz Heinrich'	crimson red
	IX - X	<i>Aster amellus</i> 'Veilchenkönigin'	dark violet
	IX - X	<i>Aster dumosus</i> Herbstgruß vom Bresserhof'	pink-red
	IX - X	<i>Aster dumosus</i> 'Kassel'	carmine
	IX - X	<i>Aster dumosus</i> 'Professor Anton Kippenberg'	blue
	IX - X	<i>Aster dumosus</i> 'Schneekissen'	white
	IX - X	<i>Aster dumosus</i> 'Wachsenburg'	violet-pink
	IX - X	<i>Aster novae-angliae</i> 'Barr's Blue'	dark lavender blue
	IX - X	<i>Aster novae-angliae</i> 'Purple Dome'	dark ruby-pink
	IX - X	<i>Aster novae-angliae</i> 'Rudelsburg'	salmon pink
	IX - X	<i>Aster novi-belgii</i> 'Blaue Nachhut'	light lavender blue
	IX - X	<i>Aster novi-belgii</i> 'Dauerblau'	dark purple-blue
	IX - X	<i>Cimicifuga simplex</i> 'Brunette'	whitish pink
	IX - X	<i>Cortaderia selloana</i>	silvery white
	IX - X	<i>Miscanthus sinensis</i> varieties	silvery
	IX - X	<i>Saxifraga cortusifolia</i> fortunei	white
	IX - X	<i>Sedum telephium</i> 'Herbstfreude'	carmine-crimson to carmine-brown
	IX - X	<i>Solidago caesia</i>	golden yellow
	IX - XI	<i>Ceratostigma plumbaginoides</i>	gentian blue

## 6 Red-flower perennials

The colour red occurs in three forms among perennials: as a flower colour, as foliage colour - where it tends towards brownish - and finally as autumn colours (see table of foliage and autumn colours). This red can either be used in mono-chrome gardens - i.e. where only red is used aside from the normal green of the leaves - or as flower colour and leaf colour. Along with these artificial, artful design motifs, the use of red can be used in diverse colour combinations such as the "warm" colour sequence: red-orange-yellow or the "primary contrast", a three-colour spectrum with the three primary colours red-yellow-blue as well as in free variations with other colours, such as with white and purple.

Two basic distinctions in topiary are made with red: warm red such as brick-red, scarlet, velvety brown-red, etc. and cold red: carmine, crimson red.

Genus/species/variety	Flower colour	Flowering time
<i>Astilbe Arendsii</i> hybrid 'Fanal'	ruby red	VII
<i>Astrantia major</i> 'Star of Beauty'	violet-red/white centre	VI - VII
<i>Bergenia</i> hybrid 'Eroica'	violet-red	IV - V
<i>Bistorta amplexicaulis</i> 'J. S. Caliente'	dark red	VII - X
<i>Dianthus carthusianorum</i>	crimson	VI - IX
<i>Dianthus deltoides</i> 'Brilliant'	bright ruby red	VI - VII
<i>Echinacea purpurea</i> 'Magnus'	carmine	VII - VIII
<i>Epimedium alpinum</i>	red sepals/yellow petals	IV - V
<i>Geum coccineum</i> 'Borisii'	orange-red	V - VI
<i>Geum</i> hybrid 'Dolly North'	orange-red	VI - VII/IX
<i>Helenium cultorum</i> 'Moerheim Beauty'	mahogany-red	VII - VIII
<i>Helenium cultorum</i> 'Waltraud'	copper-red with yellow	VII - VIII
<i>Helianthemum cultorum</i> 'Bronzeteppich'	brown orange	V - IX
<i>Helleborus Orientalis</i> hybrid 'Red Hybrids'	burgundy	II - IV
<i>Hemerocallis cultorum</i> 'Sammy Russel'	tile-red	VII - VIII
<i>Heuchera sanguinea</i> 'Leuchtkäfer'	dark scarlet	V - VI
<i>Heuchera sanguinea</i> 'Red Spangles'	bright red	V - VI
<i>Knautia macedonica</i> 'Mars Midget'	dark ruby red	VI - X
<i>Kniphofia</i> hybrids	orange-red to red	VII - IX
<i>Lamium orvala</i>	brownish red	V - VI
<i>Monarda fistulosa</i> 'Cambridge Scarlet'	scarlet	VII - IX
<i>Paeonia lactiflora</i> 'Karl Rosenfield'	dark wine-red	V - VI
<i>Paeonia officinalis</i> 'Rubra Plena'	blood-red	V
<i>Phlox paniculata</i> 'Starfire'	bright tile-red (signal red)	VII - VIII
<i>Pulmonaria rubra</i>	coral red	III - V

Explanation of symbols: I - XII = flowering period month from January (= I) to December (= XII)





## 7 Orange-flower perennials

Orange is a mixed colour between warm red and yellow and can be used equally well with both. Partners that are full of contrasts would have blue-violet hues, colours that would have to be far more plentiful than orange in a bed in order to match the powerful glow of orange. Orange occurs among perennials both as a flower colour and as an autumn colour. The hues of apricot and salmon-orange are counted under the main colour orange.

Genus/species/variety	Flower colour	Flowering time
<i>Achillea Millefolium</i> hybrid 'Terracotta'	orange-brown, later orange-ochre	VI - VII
<i>Epimedium warleyense</i> 'Orangekönigin'	bright orange	IV - V
<i>Geum coccineum</i> 'Borrisii'	bright orange	V - VII
<i>Heliopsis scabra</i> 'Spitzentänzerin'	orange-yellow	VII - IX
<i>Kniphofia</i> hybrids	orange-yellow to orange	VII - IX

## 8 Yellow-flower perennials

Yellow-flower perennials are very common. Yellow in used often in various three-colour combinations, for instance in the primary three colours, a combination of red, yellow, and blue, the only pure colours that cannot be gained from any combinations. It also plays an important role in the classic triad of yellow, white and blue.

Genus/species/variety	Flower colour	Flowering time
<i>Achillea Clypeolata</i> hybrid 'Moonshine'	sulphurous yellow	VI - VII/IX A
<i>Achillea filipendulina</i> varieties	golden yellow	VI - IX
<i>Achillea Filipendulina</i> hybrid 'Credo'	light cream-yellow	VI - VII/IX
<i>Achillea tomentosa</i> 'Aurea'	golden yellow	VI - VII
<i>Alchemilla epipsila</i>	greenish-yellow	VI - VII
<i>Alchemilla mollis</i>	yellow-green	VI - VII/IX
<i>Alyssum montanum</i> 'Berggold'	bright yellow	III - V
<i>Alyssum saxatile</i> 'Compactum'	yellow	IV - V
<i>Aster linosyris</i>	golden yellow	VII - X
<i>Buphthalmum salicifolium</i>	yellow	VI - IX
<i>Chrysogonum virginianum</i>	light to golden yellow	IV - VII/IX
<i>Coreopsis lanceolata</i> 'Sterntaler'	golden yellow with redbrown base	VI - VIII
<i>Coreopsis verticillata</i> 'Grandiflora'	bright yellow	VI - IX
<i>Coreopsis verticillata</i> 'Moonbeam'	bright yellow	VI - IX
<i>Coreopsis verticillata</i> 'Zagreb'	golden yellow	VI - IX
<i>Corydalis lutea</i>	light yellow to yellow	V - IX
<i>Digitalis grandiflora</i>	sulphur-yellow	VI - VIII
<i>Epimedium perralderianum</i> 'Frohneleiter'	yellow	III - IV
<i>Epimedium pinnatum</i> 'colchicum'	bright yellow	IV - V
<i>Epimedium versicolor</i> 'Sulphureum'	sulphur-yellow	IV - V
<i>Euphorbia myrsinites</i>	yellow-green	IV - V
<i>Euphorbia polychroma</i>	bright yellow bracts	IV - VI
<i>Euphorbia amygdaloides</i> varieties	lime green to greenish yellow	VII - IX
<i>Geum chiloense</i> 'Goldball'	yellow	VI - VII
<i>Helenium Hybride</i> 'Kugelsonne'	yellow	VIII - IX
<i>Helianthemum cultorum</i> 'Sterntaler'	golden yellow	V - IX
<i>Hemerocallis cultorum</i> 'Corky'	golden yellow	VI
<i>Hemerocallis cultorum</i> 'Stella de Oro'	golden yellow to orange yellow	VI - VII

Explanation of symbols: I - XII = flowering period month from January (= I) to December (= XII)

Genus/species/variety	Flower colour	Flowering time
<i>Inula ensifolia</i>	yellow	VII - VIII
<i>Inula magnifica</i>	golden yellow	VII - VIII
<i>Kniphofia</i> hybrids	yellow to orange yellow	VII - IX
<i>Lamium galeobdolon</i> 'Florentinum'	light yellow	V - VI
<i>Ligularia</i> species and varieties	yellow to golden yellow	VIII - IX
<i>Lysimachia nummularia</i>	yellow	V - VI
<i>Lysimachia punctata</i>	yellow	VI - VIII
<i>Oenothera missouriensis</i>	light to citrus yellow	VI - IX
<i>Phlomis russeliana</i>	light yellow	VI - VIII
<i>Potentilla aurea</i>	yellow	V - VII
<i>Potentilla neumanniana</i>	golden yellow	IV - VI
<i>Primula elatior</i>	light yellow	III - V
<i>Primula veris</i>	golden yellow, orange spot	(II)IV - V
<i>Rudbeckia fulgida</i> 'deamii'	intense golden yellow	VIII - IX(X)
<i>Rudbeckia fulgida</i> 'Goldsturm'	golden yellow with black centre	VII - IX
<i>Rudbeckia nitida</i> 'Herbstsonne'	yellow	VIII - IX
<i>Santolina chamaecyparissus</i>	yellow	VII - VIII
<i>Sedum acre</i>	bright yellow	VI - VII
<i>Sedum floriferum</i> 'Weihenstephaner Gold'	golden yellow	VI - VII
<i>Sedum hybridum</i> 'Immergrünchen'	yellow	VI - VII
<i>Solidago caesia</i>	golden yellow	IX - X
<i>Solidago sphacelata</i> 'Golden Fleece'	dark yellow	VII - IX
<i>Symphytum grandiflorum</i>	cream yellow	III - V
<i>Verbascum olympicum</i>	bright yellow	VI - VIII
<i>Waldsteinia geoides</i>	yellow	IV - V
<i>Waldsteinia ternata</i>	yellow	IV - V

## Aquatic plants

<i>Caltha palustris</i>	golden yellow	III - IV/IX
<i>Iris pseudacorus</i>	yellow	V - VI
<i>Nuphar lutea</i>	yellow	VI - VIII
<i>Nymphaea</i> hybrid 'Marliacea Chromatella'	light yellow	VI - VIII
<i>Ranunculus lingua</i>	yellow	VI - VIII

## Overview autumn colours

<i>Aconitum carmichaelii</i> 'Arendsii'	yellow (often along with flowers!)
<i>Aruncus dioicus</i>	light yellow to yellow
<i>Convallaria majalis</i>	yellow
<i>Filipendula ulmaria</i>	yellowish
<i>Geranium renardii</i>	light yellow
<i>Hemerocallis cultorum</i>	yellow to greenish yellow
<i>Hosta</i> species and varieties	bright yellow
<i>Hosta fortunei</i> 'Aureo-marginata'	green leaves with yellow margin
<i>Hosta</i> hybrid 'Sum and Substance'	shoots bright yellow, then citrus yellow to yellowish green
<i>Macleaya cordata</i>	light yellow
<i>Polygonatum multiflorum</i>	light yellow
<i>Scirpus tabernaemontani</i>	green stalk with yellow horizontal stripes
<i>Calamagrostis acutiflora</i> 'Karl Foerster'	yellow
<i>Carex montana</i>	yellow to orange-brown
<i>Miscanthus giganteus</i>	yellow to yellow-orange
<i>Molinia</i> species	bright yellow
<i>Pennisetum alopecuroides</i>	straw-yellow





## 9 Blue-flower perennials

Pure blue is a rather uncommon flower colour. Usually it is confused with purple or even violet and used synonymously. As the “coldest” colour, blue has the least glow; it is seldom used alone, but rather in various colour combinations: for example, in contrast to bright red or in the classic triad yellow-white-blue. Partners of blue are golden yellow and orange hues, which should be used with care lest their bright glows overshadow the effects of the blue (Johann Wolfgang von Goethe: “Blue - an attractive nothing.”).

Genus/species/variety	Flower colour	Flowering time
<i>Aconitum carmichaelii</i> 'Arendsii'	violet blue	IX - X
<i>Aconitum napellus</i>	dark blue	VI - VII
<i>Agastache Rugosa</i> hybr. 'Black Adder'®	dark blue-violet	VI - IX
<i>Ajuga reptans</i>	purple-blue	IV - V
<i>Anchusa azurea</i> 'Dropmore'	bright blue	VI - VII
<i>Aquilegia alpina</i>	pure blue	VI
<i>Aquilegia</i> 'Blaue Töne'	intense blue	V - VI
<i>Aquilegia vulgaris</i>	purple-blue	V - VI
<i>Aster amellus</i> 'Rudolf Goethe'	lavender blue	VII - VIII
<i>Aster Dumosus</i> hybrid		
'Professor Anton Kippenberg'	blue	IX - X
<i>Aster novae-angliae</i> 'Barr's Blue'	dark lavender blue	IX - X
<i>Aster novi-belgii</i> 'Blaue Nachhut'	light lavender blue	IX - X
<i>Aster novi-belgii</i> 'Dauerblau'	dark purple-blue	IX - X
<i>Aster sedifolius</i> 'Nanus'	blue-violet	VIII - IX
<i>Brunnera macrophylla</i>	pure blue	(III) IV - V
<i>Brunnera macrophylla</i> 'Jack Frost'	light blue	IV - V
<i>Buglossoides purpureoaeerulea</i>	gentian blue	IV - V
<i>Campanula carpatica</i> 'Blaue Clips'	violet blue	VI - VII
<i>Campanula cochlearifolia</i> 'Bavaria Blue'	intense blue	VI - VIII
<i>Campanula persicifolia</i> 'Grandiflora Coerulea'	porcelain blue	VI - VII
<i>Campanula poscharskyana</i> 'Blauranke'	light violet blue	VI - VIII
<i>Campanula rotundifolia</i> 'Olympica'	blue-violet	VII - VIII
<i>Campanula trachelium</i>	violet-blue	VII - VIII
<i>Centaurea montana</i>	blue	V - VII
<i>Ceratostigma plumbaginoides</i>	gentian blue	IX - XI
<i>Delphinium grandiflorum</i> 'Blauer Zwerg'	brightsky blue	VI - VII
<i>Echinops bannaticus</i> 'Blue Glow'	intense steel-blue	VII - IX
<i>Echinops ritro</i>	shimmering steel-blue	VII - IX
<i>Geranium himalayense</i> 'Gravetye'	bright blue	V - VI
<i>Geranium pratense</i> 'Johnsons Blue'	purple-blue	V - VI
<i>Hosta</i> hybrid 'Sum and Substance'	lavender blue	VIII - IX
<i>Lavandula angustifolia</i> 'Dwarf Blue'	deep blue	VII - VIII
<i>Lavandula angustifolia</i> 'Munstead'	intense lavender blue	VII - VIII
<i>Linum perenne</i> 'Saphir'	bright blue	VI - VIII
<i>Omphalodes verna</i>	sky blue	III - V
<i>Phlox divaricata</i> 'Blue Moon'	light to medium blue	IV - VI
<i>Platycodon grandiflorus</i> 'Mariesii'	blue-violet	VI - VIII
<i>Polemonium caeruleum</i>	blue	IV - VI
<i>Pulmonaria angustifolia</i> 'Azurea'	gentian blue	III - V
<i>Salvia nemorosa</i> 'Blauhügel'	blue	VI/VIII
<i>Symphytum azureum</i>	sky blue	IV - VI

Explanation of symbols: I - XII = flowering period month from January (= I) to December (= XII)

Genus/species/variety	Flower colour	Flowering time
<i>Veronica austriaca</i> <i>teucricum</i> 'Königsblau'	bright blue	V - VI
<i>Veronica longifolia</i>	light blue	VII - VIII
<i>Veronica peduncularis</i> 'Georgia Blue'®	striking gentian blue	V - VII
<i>Veronica teucricum</i> 'Knallblau'	striking gentian blue	V - VI
<i>Veronica spicata</i> <i>incana</i>	dark blue	VI - VII
<i>Vinca major</i>	blue	IV - V
<i>Vinca minor</i>	blue	IV - VI
<i>Viola odorata</i> 'Königin Charlotte'	blueviolet	III - IV (IX)

## 10 Purple and violet-flower perennials

Purple and violet are mixed colours found between pure blue and clear red. Both colour pigments are constantly confused and even held to be blue. Purple lies between blue and violet on the colour spectrum. It is best understood as “blue with a touch of red”; it corresponds to the wild colours of lilacs or lavender. Violet is found between purple and red; it is “red with a touch of blue”. It is best represented by *Salvia nemorosa* 'Ostfriesland'. Both mixed colours flow imperceptibly into one another, which precludes a sharp distinction.

Partners of purple and violet are golden yellow to orange, but also citrus green hues. Deep brown foliage is also special: it can be used as a blackish yellow and even enhances the glow of deep violet in a leaf-flower combination.

Genus/species/variety	Flower colour	Flowering time
<i>Ajuga reptans</i>	purple-blue	IV - V
<i>Ajuga reptans</i> 'Atropurpurea'	violet	IV - V
<i>Aster amellus</i> 'Sternkugel' varieties	light violet	VII - VIII
<i>Aster amellus</i> 'Veilchenkönigin'	dark ruby-pink	IX - X
<i>Aster novae-angliae</i> 'Purple Dome'	dark ruby-pink	IX - X
<i>Aster novi-belgii</i> 'Dauerblau'	purple-blue	IX - X
<i>Aubrieta cultorum</i> varieties	velvety dark violet	IV - V
<i>Calamintha nepeta</i>	whitish purple	VI - IX
<i>Campanula carpatica</i> 'Blaue Clips'	light blue-violet	VI - VII
<i>Campanula glomerata</i> 'Dahurica'	deep violet blue	VI - VIII
<i>Campanula latifolia</i> <i>macrantha</i>	blueviolet	VI - VII
<i>Campanula portenschlagiana</i> 'Birch'	violet	VI - VIII
<i>Campanula poscharskyana</i> 'Blauranke'	purple to violet-blue	VI - VIII
<i>Delphinium belladonna</i> 'Atlantis'	dark blue-violet	VI - VIII/IX
<i>Delphinium elatum</i> 'Finsteeraarhorn'	violet blue with black	VII/IX
<i>Geranium cinereum</i> 'Ballerina'	crimson-violet	VI - IX
<i>Geranium himalayense</i> 'Gravetye'	blue with crimson, appears violet	V - VI
<i>Geranium magnificum</i>	crimson-violet	V - VI
<i>Geranium phaeum</i>	chocolate brown to crimson-violet	V - VI
<i>Geranium renardii</i> 'Philippe Vapelle'	blueviolet	VI - VII
<i>Geranium sylvaticum</i> 'Birch Lilac'	violet-blue	VI - VII
<i>Geranium sylvaticum</i> 'Mayflower'	blue-violet with white „eye”	V - VI
<i>Hosta crispula</i>	light purple	VI - VII
<i>Hosta fortunei</i> 'Aureomarginata'	light violet	VII - VIII
<i>Hosta lancifolia</i>	crimson-violet	VIII





## 10 Purple or violet-flower perennials

Genus/species/variety	Flower colour	Flowering time
<i>Hosta sieboldiana</i> 'Elegans'	whitish purple	VII
<i>Hosta tardiflora</i> 'Halcyon'	lavender	VIII
<i>Hosta ventricosa</i>	crimson-violet	VIII
<i>Hosta</i> hybrid 'Sum and Substance'	purple to lavender-blue	VIII - IX
<i>Iris barbata</i> elatior 'Lovely Again'	lavender	V/VIII
<i>Lathyrus vernus</i>	first red-violet, later violet-blue	IV - V
<i>Lavandula angustifolia</i> varieties	purple to violet	VII - VIII
<i>Liriope muscari</i> varieties	blue-violet	VIII - X
<i>Nepeta faassenii</i> varieties	purple	V - IX
<i>Phlox paniculata</i> 'Eventide'	light purple-blue	VIII
<i>Phlox subulata</i> 'G. F. Wilson'	light purple-blue	IV - V
<i>Prunella grandiflora</i>	crimson-violet	VI - VIII
<i>Pulmonaria saccharata</i> 'Mrs.Moon'	first pink, later blue-violet	IV - V
<i>Pulsatilla vulgaris</i>	violet to violet blue	III - IV
<i>Salvia nemorosa</i> 'Marcus'®	black-violet	VI - IX
<i>Salvia nemorosa</i> 'Ostfriesland'	deep violet	VI/VIII
<i>Salvia pratensis</i>	light to medium blue	V - VI
<i>Scabiosa columbaria</i> 'Butterfly Blue'	blue-violet	V - IX

## 11 Pink, carmine, magenta and crimson flower perennials

The colours pink and carmine are additional mixed colours. The mixture of white and red pigments produces pink. The less white in the mixture, the more the red will dominate. Intermediate colours are carmine-pink and pure carmine, a cold hue of red. An especially intense carmine with a bit of violet is called magenta-red. Other hues are carmine-red and, finally, ruby, wine and crimson red, all of which are deep hues of red. Their partners are pure white, green-yellow hues and purple.

Genus/species/variety	Flower colour	Flowering time
<i>Achillea millefolium</i> 'Cerise Queen'	carmine	VI - VII
<i>Allium aflatunense</i> 'Purple Sensation'	purple-violet	V - VI
<i>Anemone hupehensis</i> 'Ouverture'	light pink, carmine pink underneath	VII - IX
<i>Anemone hupehensis</i> 'Septembercharme'	light pink-carmine	VIII - IX
<i>Anemone Japonica</i> hybrid 'Königin Charlotte'®	violet-pink/semi-double flowers	VIII - X
<i>Anemone Japonica</i> hybrid 'Prinz Heinrich'	crimson-red	IX - X
<i>Anemone tomentosa</i> 'Robustissima'®	soft pink	VII - IX
<i>Antennaria dioica</i> 'Rubra'	pink-red	V - VI
<i>Arabis arendsii</i> 'Compinkie'	light to dark pink	IV - V
<i>Aster amellus</i> 'Lady Hindlip'	pink	VIII - IX
<i>Aster Dumosus</i> hybrid 'Herbstgruß vom Bresserhof'	pink-red	IX - X
<i>Aster Dumosus</i> hybrid 'Kassel'	carmine	IX - X
<i>Aster Dumosus</i> hybrid 'Wachensburg'	violet-pink	IX - X
<i>Astilbe arendsii</i> 'Fanal'	ruby red	VII
<i>Astilbe chinensis</i> pumila	violet-pink	VIII - IX
<i>Astilbe chinensis</i> taquetii 'Purpurlanze'	crimson-red	VII - VIII
<i>Astilbe Glaberrima</i> hybrid 'Sprite'	pearl pink, later greyish pink	VII - VIII
<i>Astrantia major</i> 'Roma'®	silvery pink to antique pink, pearly	VI - VII

Explanation of symbols: I - XII = flowering period month from January (= I) to December (= XII)

Genus/species/variety	Flower colour	Flowering time
<i>Aubrieta cultorum</i> 'Royal Red'	magenta-red	IV - V
<i>Bergenia cordifolia</i>	carmine	IV - V
<i>Bergenia cordifolia</i> 'Rotblum'	carmine	IV - V
<i>Bergenia</i> 'Silberlicht'	white with carmine	IV - V
<i>Bistorta officinalis</i> 'Superbum'	light to antique pink	VI - VII
<i>Chelone obliqua</i>	purple-pink	VII - IX
<i>Centranthus ruber</i> 'Coccineus'	carmine pink	VI - IX
<i>Dianthus deltooides</i> 'Brilliant'	bright ruby-red	VI - VII
<i>Dicentra eximia</i>	crimson-pink	VI - VII
<i>Dicentra spectabilis</i>	pink to carmine	V - VI
<i>Digitalis purpurea</i> 'Gloxiniaeflora'	pink, carmine, crimson	VI - VII
<i>Echinacea pallida</i>	light pink, orange-brown in the centre	VII - IX
<i>Echinacea purpurea</i>	carmine	VII - IX
<i>Echinacea purpurea</i> 'Fatal Attraction'	dark crimson-pink	VII - VIII
<i>Geranium catabrigiense</i> 'Cambridge'	dark pink	VI - VII
<i>Geranium endressii</i>	pink	VI - X (XI)
<i>Geranium endressii</i> varieties	dark pink	V - VII (IX)
<i>Geranium gracile</i> 'Sirak'	violet pink	V - VII (IX)
<i>Geranium macrorrhizum</i> 'Ingwersen'	light to pale pink	V - VII
<i>Geranium macrorrhizum</i> 'Spessart'	whitish pink	V - VII
<i>Geranium nodosum</i>	purple pink, dark veins	V - X
<i>Geranium psilostemon</i> 'Patricia'	light magenta	VI - IX
<i>Geranium renardii</i>	whitish pink	VI - VII
<i>Geranium sanguineum</i>	carmine to carmine-red	V - VI
<i>Helianthemum cultorum</i> 'Cerise Queen'	carmine	V - IX
<i>Helianthemum cultorum</i> 'Lawrensens Pink'	intense pink	V - IX
<i>Helianthemum cultorum</i> 'Rubin'	ruby red	V - IX
<i>Hemerocallis cultorum</i> 'Pink Damask'	pink with salmon-orange	VI - VII
<i>Lamium maculatum</i> 'Chequers'	carmine pink	IV - V
<i>Lamium maculatum</i> 'Silbergroschen'	crimson-pink	IV - V
<i>Liatris spicata</i> 'Floristan Violet'	crimson-violet	VII - VIII
<i>Lythrum salicaria</i>	carmine	VI - VIII
<i>Malva moschata</i>	pink	VI - IX
<i>Monarda</i> 'Croftway Pink'	salmon pink	VII - IX
<i>Monarda</i> 'Prärienacht'	deep crimson red	VII - IX
<i>Origanum laevigatum</i> 'Herrenhausen'	red-violet	VII - IX
<i>Origanum vulgare</i> 'Compactum'	violet-pink	VI - IX
<i>Paeonia lactiflora</i> 'Sarah Bernhardt'	light silvery pink	V - VI
<i>Phlox paniculata</i> varieties	pink to carmine	VIII
<i>Phlox subulata</i> 'Temiskaming'	crimson-red	IV - V
<i>Polygonum affine</i> 'Darjeeling Red'	pink to crimson-pink	VI - IX
<i>Salvia verticillata</i> 'Purple Rain'	purple-violet	VI - IX
<i>Sanguisorba officinalis</i> 'Tanna'	intense crimson	VI - VIII
<i>Saxifraga urbium</i> 'Elliott'	pink	V - VI
<i>Scabiosa columbaria</i> 'Pink Mist'	violet-pink	V - IX
<i>Sedum spectabile</i> 'Carl'	dark pink	VIII - IX
<i>Sedum spurium</i> 'Fuldaglut'	carmine	VII - VIII
<i>Sedum telephium</i> 'Herbstfreude'	carmine-crimson to carmine-brown	IX - X
<i>Sedum telephium</i> 'Matrona'	pink to brownish pink	VIII - IX
<i>Tellima grandiflora</i>	greenish pink	V - VI
<i>Teucrium lucidrys</i>	crimson-pink	V - X
<i>Thalictrum aquilegifolium</i>	violet-pink	V - VI
<i>Thymus doerfleri</i> 'Bressingham Seedling'	pink	V - VI
<i>Thymus pulegioides</i>	purple-violet	VI - VIII
<i>Thymus serpyllum</i>	light-purple pink	VI - VIII





Genus/species/variety	Flower colour	Flowering time
Thymus serpyllum 'Coccineus'	crimson-red	VI - VIII
<b>Aquatic plants</b>		
Butomus umbellatus	pink	VII - IX
Nymphaea hybrid 'James Brydon'	carmine	VI - VIII
Nymphaea odorata 'Rosennymphe'	intense pink, light pink	VI - VIII

## 12 White and grey perennials

White is an indispensable flower colour. This neutral colour is in-between all other hues; it both separates and combines. Physically, the colour white is a mixture of complementary colours, such as blue with orange, violet with yellow, green with red. Thus, white is a pleasant junction between contrasting colours. With their maximum brightness, white perennials take the glow out of extremely bright flowers and make their neighbours appear darker.

Thanks to its brightness, white is the only colour that is recognisable at dawn and dusk. Silvery and grey-tomentose leaf varieties are also considered part of the colour white. Grey is merely a subdued continuation of the colour white. It reduces the colour contrasts.

Genus/species/variety	Flower colour	Flowering time
Achillea ptarmica 'Boule de Neige'	white	VII - IX
Aconogonon speciosum 'Johanniswolke'	creme-white	VI - IX
Anaphalis triplinervis 'Sommerschnee'	milky white	VI - VII
Anemone Japonica hybrid 'Honorine Jobert'	pure white	VIII - IX
Anemone nemorosa	white, light pink on the outside	III - IV
Anemone sylvestris	white	IV - VI
Arabis caucasica 'Schneehaube'	white	IV - V
Arabis procurrrens 'Glacier'	white	IV - V
Artemisia schmidtiana 'Nana'	grey-white	VII
Aruncus aethusifolius	milky white	V - VI
Aruncus dioicus	creme-white	VI - VII
Aster divaricatus	pale white	VIII - IX
Aster Dumosus hybrid 'Schneekissen'	white	IX - X
Astilbe arendsii 'Brautschleier'	white to creme-white	VII - VIII
Astrantia major	silvery white with pink shimmer	VI - VII
Campanula carpatica 'Weiße Clips'	pure white	VI - VII
Campanula persicifolia 'Grandiflora Alba'	pure white	VI - VII
Centranthus ruber 'Albus'	white	VI - IX
Cerastium tomentosum 'Silberteppich'	pale white	V - VI
Cimicifuga racemosa cordifolia	creme-white	VIII - IX
Cimicifuga ramosa 'Atropurpurea'	white with pink shimmer	IX
Cimicifuga simplex 'Brunette'	whitish pink	VIII - IX
Convallaria majalis	milky white	V
Delphinium belladonna 'Casa Blanca'	white	VI - VII/IX
Dianthus deltoides 'Alba'	white with pink motting	VI
Dicentra spectabilis 'Alba'	pure white	V - VI
Dryas suendermannii	cream-white to light yellow	V - VI
Echinacea purpurea 'Alba'	white	VII - VIII
Epimedium grandiflorum	white, with a touch of pink-violet	IV - V

Explanation of symbols: I - XII = flowering period month from January (= I) to December (= XII)

Genus/species/variety	Flower colour	Flowering time
Epimedium youngianum 'Niveum'	pale white	IV - V
Eupatorium rugosum 'Chocolate'	pure white	VII - IX
Filipendula ulmaria	cream-white	VI - X
Fragaria vesca semperflorens varieties	white	V - IX
Fragaria vesca vesca	white	IV - V
Galium odoratum	white	IV - V
Geranium catabrigiense 'Biokovo'	white with pink shimmer	VI - VII
Geranium clarkei 'Kashmir White'	white with brown-pink veins	VI - VII
Geranium macrorrhizum 'Spessart'	white with light pink	V - VI
Geranium macrorrhizum 'White Ness'	pure white	V - VII
Geranium renardii	grey-white with violet veins	VI - VII
Geranium phaeum 'Album'	pure white	V - VII
Geranium sylvaticum 'Album'	pure white	VI - VII
Helianthemum cultorum 'Snow Queen'	white	V - IX
Helleborus niger	milky white with a green shimmer	XII - II
Helleborus Orientalis hybrid 'White Spotted Lady'	white with red dots	II - IV
Hosta 'Royal Standard'	milky white	VII - VIII
Iberis sempervirens varieties	bright white	VI - VII
Leucanthemum vulgare 'Maikönigin'	milky white	V
Liatris spicata 'Floristan Weiß'	white	VII - IX
Lysimachia clethroides	white	VII - IX
Lychnis coronaria 'Alba'	white	VI - VII
Macleaya cordata	creme-white, brown shimmer	VII - VIII
Matricaria caucasica	white	V - VI
Nepeta faassenii 'Alba'	delicate white	V - VIII
Omphalodes verna 'Alba'	white	III - V
Ophiopogon planiscapus 'Niger'	white	VII - X
Paeonia lactiflora 'Immaculée'	pure white, creamy yellow in the centre	V - VI
Phlox paniculata 'Kirmesläндler'	white with pink bud	VIII
Phlox paniculata 'Nymphenburg'	white with ivory-white bud	VIII - IX
Phlox paniculata 'Pax'	pure white	VIII - IX
Phlox subulata 'White Delight'	pure white	IV - V
Physalis alkekengi franchetii	greenish cream-white	VI
Polygonatum multiflorum	greenish white	V - VI
Pulmonaria saccharata 'Sissinghurst White'	pure white	IV - V
Rodgersia aesculifolia	cream-white	VI - VII
Sagina subulata	white	VI - VII
Saxifraga urbium	white, reddish stamens	V - VI
Sedum album 'Coral Carpet'	white with pink shimmer	VI - VII
Sedum spurium 'Album Superbum'	white	VII - VIII
Thymus serpyllum 'Albus'	pure white	VI - VIII
Tiarella cordifolia	pale white with pink shimmer	V - VI
Viola sororia 'Albiflora'	white	V - VI

## Grasses

Cortaderia selloana	silvery white	IX - X
Miscanthus sinensis varieties	silvery	IX - X
Stipa pulcherrima	silvery	V - VI

## Aquatic plants

Alisma plantago	white to whitish pink	VI - IX
Nymphaea alba	milky white	VI - VIII
Sagittaria sagittifolia	white	VI - VIII
Stratiotes aloides	white	VI - VIII





## 13 Fragrant and aromatic perennials

A distinction is made between fragrance and aroma. Fragrances spread independently, whereas aromas are only created when plant parts are rubbed together. (See chart 14/Planning tips: Trees and shrubs/Fragrant and aromatic plants).

Genus/species/variety	Scent	Aroma
Achillea Filipendulina varieties		A
Achillea millefolium varieties		A
Achillea tomentosa 'Aurea'		A
Aconogonon speciosum 'Johanniswolke'	(F)	
Agastache Rugosa hybrid 'Black Adder'®	F	
Alchemilla mollis	f	
Alyssum montanum varieties	F	a
Anemone sylvestris	f	
Arabis caucasica varieties	F	A
Artemisia schmidtiana 'Nana'		(A)
Asarum europaeum		a
Aster divaricatus	f	
Aster dumosus	f	(A)
Aster novae-angliae		(A)
Astilbe arendsii	f	
Astrantia major		a
Aubrieta cultorum	f	
Azorella trifurcata	F	
Brunnera macrophylla	f	A
Calamintha nepeta nepeta	f	A
Centranthus ruber	f	
Cerastium tomentosum 'Silbertepich'	f	
Cimicifuga racemosa cordifolia	f	
Cimicifuga ramosa 'Atropurpurea'	f	
Cimicifuga simplex 'Brunette'	F	
Convallaria majalis	F	a
Eupatorium fistulosum varieties	f	
Euphorbia cyparissias	F	
Filipendula ulmaria	f	A
Galium odoratum	f	A
Geranium macrorrhizum varieties		(A)
Geranium magnificum		a
Hemerocallis cultorum	f	
Hosta species and varieties	f/F	
Iris barbata varieties	f/F	
Lamium orvala	F	
Lavandula angustifolia varieties	F	A
Lysimachia punctata	f	a
Malva moschata	F	
Monarda fistulosa varieties	F	A

Explanation of symbols:

- F = pleasant fragrance
- (F) = pungent, somewhat unpleasant scent (subjective)
- f = slightly fragrant (with one's nose directly in the flower)
- A = aromatic foliage
- (A) = very aromatic foliage
- a = slightly fragrant to aromatic foliage

Genus/species/variety	Scent	Aroma
Nepeta faassenii varieties		A(A)
Oenothera missouriensis	f	
Origanum species and varieties		A
Paeonia lactiflora (var.)	F	
Phlox divaricata 'Blue Moon'	F	
Phlox paniculata	F	
Phlox subulata	f	
Polemonium caeruleum	f	
Primula elatior	f	
Salvia nemorosa varieties		(A)
Santolina chamaecyparissus		a
Sedum telephium 'Herbstfreude'	f	
Tellima grandiflora	F	
Teucrium lucidrys		A
Thalictrum aquilegifolium	F	
Thymus species and varieties		A
Viola odorata 'Königin Charlotte'	F	

### Aquatic plants

Nuphar lutea	f	
Nymphaeae cultorum	f	A

## 14 Poisonous perennials

This overview of „poisonous plants“ serves as an orientation. It is not and cannot be complete, as our knowledge of the ingredients is in no way sufficient.

See preliminary remarks on the list „Poisonous woody plants“ - chart 18

Genus/species/variety	Poisonous plant part	Degree of poison	Taste/ note
All species of Aconitum	whole plant	+++	sweetish to spicy-hot
Alisma plantago	whole plant	(+)	bitter, spicy-hot
	especially milky sap		
All species of Anemone	whole plant	+	unpleasant
All species of Aquilegia	whole plant	+	
Artemisia ludoviciana	whole plant	(+)	very bitter
Artemisia stelleriana	whole plant	(+)	very bitter
Asarum europaeum	whole plant	+	burning, numbing feeling
Caltha palustris	whole plant	+	spicy-hot
All species of Cimicifuga	whole plant	+	bitter
All species of Delphinium	whole plant	+++	
Dicentra spectabilis	roots	+	
All species of Digitalis	whole plant	+++	
Dryopteris filix-mas	young plants, roots	+	
All species of Epimedium	leaves	(+)	

Also see the preliminary remarks on the list “Poisonous plants“

Explanation of symbols:

- +++ = extremely poisonous, select with caution
- ++ = very poisonous
- +
- (+) = slightly poisonous





Genus/species/variety	Poisonous plant part	Degree of poison	Taste/ note
Eupatorium fistulosum	whole plant	+	aromatic-bitter
All species of Euphorbia	milky sap	++	spicy, bitter, causes great swelling partly phytotoxic
Galium odoratum	whole plant	(+)	nice scent, causes headaches
All species of Helleborus	whole plant	+++	bitter and burning hot
All species of Iberis	seeds, leaves	+	bitter
Iris pseudacorus	rhizomes, leaves	+	burning hot
Lathyrus latifolius	seeds	+	
Lupinus polyphyllus	seeds	++	bitter
Macleaya cordata	milky sap	+	
Nuphar lutea	rhizomes, leaves	+	
All species of Nymphaea	whole plant	+	salty-bitter
All species of Paeonia	flowers, seeds	+	
Physalis alkekengi	whole plant	+	tangy-sour
Polygonatum multiflorum	berries	+	scratchy
All species of Pulsatilla	whole plant	+	
All species of Ranunculus	whole plant	+	burning
All species of Trollius	whole plant	+	
All species of Vinca	whole plant	+	

## 15 Perennials with autumn colours

There may not be as many species of perennials with spectacular autumn colours as there are among trees and shrubs, but some varieties do reveal their attractive sides in autumn with a surprising and very attractive display of autumn colours. Most, however, go out inconspicuously with grey-brown hues and wither unnoticed at some point. Also, some evergreen shrubs turn bronze, often with a metallic sheen, under the influence of low temperatures.

Finally, the perennials that draw attention with their attractive, geometric syncarpy long into winter should not be forgotten. With expert advice, you can select many perennials (cf. table "Evergreen perennials") for attractive autumn and winter beds.

Genus/species/variety	Autumn colours / Winter colours	Syncarpy
Achillea filipendulina varieties	yellow	long-stem umbels
Aconitum carmichaelii 'Arendsii'	yellow (often along with flowers!)	
Ajuga reptans 'Atropurpurea'	winter violet to bronze-red	
Aruncus aethusifolius	bright orange to brick-red	
Aruncus dioicus	strong yellow	towering syncarpy
Aster divaricatus	pale yellow	
Astilbe arendsii	yellow	stiff brown syncarpy
Astrantia major	yellowish	
Bergenia species and varieties	winter metallic red-brown	
Ceratostigma plumbaginoides	orange-red (along with flowers)	
Convallaria majalis	yellow	

Genus/species/variety	Autumn colours / Winter colours	Syncarpy
Coreopsis verticillata	green-yellow to bronze	
Epimedium perralderianum	winter bronze	
Epimedium versicolor 'Sulphureum'	reddish	
Euphorbia polychroma	yellow-orange	red stems
Filipendula ulmaria	yellowish	
Geranium macrorrhizum varieties	orange-yellow	
Geranium magnificum	orange	
Geranium renardii	light yellow	
Geranium sanguineum	brick to dark red	
Hemerocallis cultorum	yellow to yellow-green	
Heuchera micrantha 'Palace Purple'	blood-red	
Hosta species and varieties	bright golden yellow	
Lysimachia clethroides	intense orange-red	
Lysimachia punctata	yellowish	
Lythrum salicaria	bright blood-red	
Macleaya cordata	light yellow	loose syncarpy
Monarda fistulosa	yellow	stiff syncarpy
Paeonia lactiflora	yellowish orange, sometimes pink	
Polygonum affine varieties	bronze	
Pulsatilla vulgaris	yellow	silvery syncarpy
Rodgersia species	yellowish brown	
Sedum album 'Coral Carpet'	winter brick-red	
Sedum telephium 'Herbstfreude'	yellowish	brown-violet, umbels
Solidago sphacelata 'Golden Fleece'	yellow	silvery syncarpy
Tiarella cordifolia	winter brick-red	
Veronica peduncularis 'Georgia Blue'®	reddish-copper	
Verbascum olympicum		towering syncarpy
Waldsteinia geoides	yellowish	

## Grasses

Calamagrostis acutiflora 'Karl Förster	yellow	persistent fruit spikes
Calamagrostis arundinacea brachytricha	yellow	
Carex montana	yellow to orange-brown	
Cortaderia selloana		flower panicles in autumn
Festuca mairei		flower stalks in autumn
Melica ciliata	yellow	
Miscanthus giganteus	yellowish orange	inflorescences silvery violet
Miscanthus sinensis varieties	yellow	silvery syncarpy
Molinia species	bright yellow	transparent fruit panicles
Panicum virgatum 'Rehbraun'	orange-red to dark red	transparent fruit panicles
Pennisetum alopecuroides	straw-yellow	

## Ferns

Athyrium filix-femina	pale yellowish	
Dryopteris filix-mas	yellowish to brownish	
Matteuccia struthiopteris	yellowish	stiff, black-brown fruit fronds
Osmunda regalis	yellowish to yellow	
Polystichum setiferum varieties	yellowish to reddish	

## Aquatic plants

Phragmites australis	like straw	silvery fruit panicles
Typha angustifolia		red-brown syncarpy







## 16 Evergreen perennials

Like trees and shrubs, perennials also have evergreen and nearly evergreen forms. Most perennials in our climatic zone tend to be nearly evergreen, i.e. the foliage stays green through winter and gradually dies during shooting in early spring. Evergreen perennials often originate from snowy, very mild regions where they either live through the winter with their green foliage covered by plentiful snow or are hardly damaged by frost. Therefore, these perennials should be covered with twigs and foliage at the beginning of the cold season, especially where little snow generally falls in winter. Even when such perennials were damaged, they regenerate from the root stock unless winter was extreme.

Genus/species/variety	Foliage
Acaena buchananii	evergreen
Achillea tomentosa 'Aurea'	nearly evergreen
Ajuga reptans and varieties	nearly evergreen
Alyssum saxatile 'Compactum'	nearly evergreen
Antennaria dioica 'Rubra'	nearly evergreen
Arabis cuacasicas varieties	nearly evergreen
Arabis procurrens 'Glacier'	nearly evergreen
Asarum europaeum	evergreen
Aubrieta cultorum varieties	(nearly) evergreen
Azorella trifurcata	nearly evergreen
Bergenia species and varieties	(nearly) evergreen
Centranthus ruber	nearly evergreen
Cerastium tomentosum 'Silberteppich'	(nearly) evergreen
Dianthus carthusianorum	nearly evergreen
Dianthus plumarius	nearly evergreen
Dryas suendermannii	(nearly) evergreen
Epimedium perralderianum 'Frohleiter'	nearly evergreen
Epimedium warleyense 'Orangekönigin'	nearly evergreen
Euphorbia myrsinites	evergreen
Fragaria vesca semperflorens varieties	nearly evergreen
Galium odoratum	nearly evergreen
Geranium endressii	somewhat evergreen
Helianthemum cultorum	(nearly) evergreen
Helleborus foetidus	evergreen
Helleborus niger	nearly evergreen
Heuchera Micrantha hybrids	nearly evergreen
Iberis sempervirens varieties	evergreen
Iris barbata	nearly evergreen
Kniphofia hybrid	nearly evergreen
Lamiastrum galeobdolon 'Florentinum'	nearly evergreen
Lamium maculatum	somewhat evergreen
Lavandula angustifolia	evergreen
Liriope muscari varieties	winter- to evergreen
Lychnis coronaria 'Alba'	nearly evergreen
Matricaria caucasica	nearly evergreen
Nepeta faassenii	somewhat evergreen
Ophiopogon planiscapus 'Niger'	evergreen
Pachysandra terminalis	evergreen
Phlomis russeiana	nearly evergreen
Phuopsis stylosa	nearly evergreen
Sagina subulata	nearly evergreen
Santolina chamaecyparissus	winter- to evergreen

Genus/species/variety	Foliage
Saxifraga urbium	(nearly) evergreen
Saxifraga urbium 'Elliott'	(nearly) evergreen
Sedum acre	evergreen
Sedum album	evergreen
Sedum hybridum 'Immergrünchen'	(nearly) evergreen
Sedum spurium 'Album Superbum'	shoots nearly evergreen
Stachys byzantine in Sorten	nearly evergreen
Teucrium lucidrys	evergreen
Thymus praecox pseudolanuginosus	evergreen
Veronica peduncularis 'Georgia Blue' <sup>®</sup>	nearly evergreen
Veronica spicata incana	nearly evergreen
Waldsteinia ternata	nearly evergreen
Vinca species and varieties	evergreen

### Grasses

Ammophila arenaria	nearly evergreen
Carex caryophyllea varieties	nearly evergreen
Carex conica 'Snowline' <sup>®</sup>	nearly evergreen
Carex foliosissima varieties	evergreen
Carex grayi	nearly evergreen
Carex morrowii 'Variegata'	evergreen
Carex pendula	evergreen
Carex plantaginea	evergreen
Carex sylvatica	evergreen
Carex umbrosa	evergreen
Cortaderia selloana	evergreen
Deschampsia cespitosa	nearly evergreen
Festuca cinerea	evergreen
Festuca gautieri varieties	winter- to evergreen
Festuca mairei	usually nearly evergreen
Festuca ovina	(nearly) evergreen
Helictotrichon sempervirens	evergreen
Koeleria glauca	nearly evergreen
Leymus arenarius	nearly evergreen
Luzula sylvatica varieties	evergreen
Sesleria autumnalis	nearly evergreen
Sesleria caerulea	nearly evergreen
Sesleria heufleriana	nearly evergreen
Stipa gigantea	nearly evergreen

### Ferns

Blechnum spicant	nearly evergreen
Dryopteris erythrosora	nearly evergreen
Phyllitis scolopendrium	evergreen
Polystichum aculeatum	nearly evergreen
Polystichum setiferum	usually nearly evergreen





## 17 Colourful perennials

Colourful perennials are indispensable for special effects. On the one hand, they can support the flower colour in monochrome gardens, above all because the flowering period is always shorter than the leaf colours; on the other, contrasts can be enhanced. For instance, dark areas can be lightened with yellow, white or silver-leaf perennials, or light areas can be toned down with red or brown-leaf plants.

Genus/species/variety	Colour
-----------------------	--------

### Blue to blue-green foliage

<i>Dianthus plumarius</i>	silvery blue
<i>Euphorbia myrsinites</i>	blue-green
<i>Hosta sieboldiana</i> 'Elegans'	steel blue
<i>Hosta sieboldiana</i> 'Frances Williams'	grey-blue with yellow edge
<i>Hosta tardiflora</i> hybrid 'Halcyon'	intense pale blue
<i>Hypericum polyphyllum</i>	grey-blue
<i>Lychnis coronaria</i> 'Alba'	silvery grey-green, tomentose
<i>Macleaya cordata</i>	blue-green to steel-blue
<i>Sedum telephium</i> 'Herbstfreude'	pale blue to blue-green
<i>Stachys byzantina</i> 'Big Ears'®	silvery grey-green, tomentose
<i>Thymus praecox pseudolanuginosus</i>	grey leaves, woolly

### Grasses

<i>Ammophila arenaria</i>	blue-green
<i>Carex foliosissima</i> varieties	white yellow
<i>Festuca cinerea</i>	blue to grey-blue
<i>Festuca cinerea</i> 'Elijah Blue'	intense steel-blue
<i>Helictotrichon sempervirens</i>	steel-blue
<i>Koeleria glauca</i>	grey-blue-green
<i>Leymus arenarius</i>	silvery-blue-green
<i>Sesleria caerulea</i>	grey-blue
<i>Stipa tenuissima</i>	grey-green

### Yellow foliage

<i>Hosta fortunei</i> 'Aureo-marginata'	green leaves with yellow margin
<i>Hosta</i> hybrid 'Sum and Substance'	shoots bright yellow, then citrus yellow to yellowish

### Grasses

<i>Scirpus tabernaemontanii</i>	green stalk with yellow crossways stripes
<i>Hakonechloa macra</i> 'Aureola'	yellow-green stripes

### Red and brown foliage

<i>Acaena microphylla</i>	metallic bronze-red
<i>Acaena microphylla</i> 'Kupfertepich'	bronze-red, fruits brick-red
<i>Ajuga reptans</i> 'Atropurpurea'	shoots crimson-red, then red-brown
<i>Aruncus aethusifolius</i>	orange-red in autumn
<i>Ceratostigma plumbaginoides</i>	brick-red in autumn
<i>Cimicifuga ramosa</i> 'Atropurpurea'	shoots dark red, later bronze red
<i>Cimicifuga simplex</i> 'Brunette'	shoots dark red, later black-purple
<i>Eupatorium rugosum</i> 'Chocolate'	reddish brown to chocolate brown
<i>Euphorbia amygdaloides</i> varieties	reddish brown, in winter matte crimson
<i>Geranium macrorrhizum</i> varieties	brick-red in autumn

Genus/species/variety	Colour
-----------------------	--------

<i>Geranium magnificum</i>	brick-red in autumn
<i>Sedum telephium</i> 'Matrona'	brown
<i>Heuchera micrantha</i> 'Palace Purple'	black-red
<i>Heuchera micrantha</i> hybrid 'Obsidian'	deep dark red, non fading
<i>Heuchera micrantha</i> hybrid 'Plum Pudding'	plum, with silvery highlights
<i>Lythrum salicaria</i>	brick to blood-red in autumn
<i>Ophiopogon planiscapus</i> 'Niger'	dark- to black-green
<i>Paeonia lactiflora</i> varieties	shoots dark red
<i>Sedum album</i> 'Coral Carpet'	brick to coral red
<i>Sedum hybridum</i> 'Immergrünchen'	leaves brick-red in winter
<i>Sedum spurium</i> 'Fuldaglut'	bronze-red
<i>Sedum telephium</i> 'Matrona'	brown
<i>Viola labradorica</i>	reddish

### Grasses

<i>Carex conica</i> 'Snowline'®	dark green with striking white edge
<i>Imperata cylindrica</i> 'Red Baron'	red-green
<i>Panicum virgatum</i> varieties	early red autumn colouring

### White, silvery and silvery grey foliage

<i>Achillea</i> species	shoots silvery, then grey-green
<i>Alyssum montanum</i> 'Berggold'	silvery to grey-green
<i>Alyssum saxatile</i> 'Compactum'	silvery tomentose, then light grey
<i>Anaphalis triplinervis</i> 'Sommerschnee'	silvery white, then pale grey
<i>Antennaria dioica</i> 'Rubra'	silvery, then grey-green
<i>Artemisia ludoviciana</i> 'Silver Queen'	bright silvery white, then grey
<i>Artemisia schmidtiana</i> 'Nana'	silky silvery grey
<i>Artemisia stelleriana</i>	bright silvery grey
<i>Brunnera macrophylla</i> 'Jack Frost'®	silverywhite, variegated
<i>Cerastium tomentosum</i> 'Silberteppich'	bright silvery, then grey-white
<i>Geranium renardii</i>	velvety grey, then grey-green
<i>Gypsophila paniculata</i> 'Schneeflocke'	grey to grey-green
<i>Helianthemum cultorum</i> 'Snow Queen'	silvery grey
<i>Hosta crispula</i>	green leaves with white margin
<i>Lamium galeobdolon</i> 'Florentinum'	pale green, silvery spots
<i>Lamium maculatum</i> species	slender to large white spots
<i>Lavandula angustifolia</i> species	silvery grey when shooting, grey
<i>Nepeta faassenii</i> and species	pale grey to grey-green
<i>Potentilla aurea</i>	leaf green on top, silvery underneath
<i>Pulmonaria saccharata</i> varieties	leaves with pale white spots
<i>Pulsatilla vulgaris</i>	grey, silvery syncarpy
<i>Santolina chamaecyparissus</i>	grey, silvery grey
<i>Stachys byzantina</i>	velvety silver
<i>Verbascum olympicum</i>	velvety silver
<i>Veronica spicata</i> incana	flourish white, then silvery grey





## 18 Rampant perennials

Unlike perennials that form clumps and cushions, rampant perennials do not have clearly defined habits. They either form loose thickets or large crops that spread as far the situation allows. If such plants are put in cultivated beds, they must be reduced regularly; sometimes rhizome barriers are useful. The rampant perennials are, however, excellent for creating greenery safely and quickly. The indigenous species are used in particular for biological engineering purposes. These species are also good for wild gardens.

Genus/species/variety	Means of propagation
Acaena buchananii	runners, layers
Acaena microphylla	runners, layers
Achillea ptarmica 'Boule de Neige'	runners
Ajuga reptans varieties	layers
Anemone sylvestris	runners
Aquilegia vulgaris	seed
Aruncus dioicus	seed
Aster divaricatus	runners
Astilbe chinensis taquetii 'Purpurlanze'	runners
Astrantia major	seed
Brunnera macrophylla	seed
Buglossoides purpurocaerulea	layers
Campanula cochlearifolia 'Bavaria Blue'	short runners, sowing
Campanula poscharskyana 'Blauranke'	seed
Campanula rotundifolia 'Olympica'	runners
Centaurea montana	runners
Centranthus ruber	seed
Cerastium tomentosum 'Silberteppich'	runners, layers
Chrysogonum virginianum	layers
Chelone obliqua	runners
Convallaria majalis	runners
Corydalis lutea	seed
Filipendula ulmaria	runners, seed
Fragaria vesca semperflorens varieties	runners
Geranium nodosum	runners
Geranium phaeum	runners
Geranium sanguineum	runners, layers, seed
Lamiastrum galeobdolon 'Florentinum'	layers
Liriope muscari varieties	seed
Lysimachia clethroides	runners
Lysimachia punctata	runners, seed
Lythrum salicaria	seed
Malva moschata	seed
Nepeta faassenii	seed
Omphalodes verna	layers
Polygonum affine 'Darjeeling Red'	layers
Sedum spurium 'Album Superbum'	layers
Stachys byzantina	layers
Symphytum azureum	runners, seed
Symphytum grandiflorum	runners, layers
Tellima grandiflora	seed
Viola odorata 'Königin Charlotte'	runners

Genus/species/variety	Means of propagation
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### Grasses

Ammophila arenaria	runners
Carex pendula	seed
Leymus arenarius	runners
Luzula sylvatica	runners
Melica ciliata	seed
Stipa tenuissima	seed

### Ferns

Athyrium filix-femina	seed
Dryopteris filix-mas	seed
Matteuccia struthiopteris	runners

### Aquatic plants

Alisma plantago	runners, seed
Butomus umbellatus	runners
Iris pseudacorus	runners
Nuphar lutea	runners, layers
Nymphaea alba	runners
Phragmites australis	runners
Ranunculus lingua	runners
Sagittaria sagittifolia	runners
Stratiotes aloides	layers
Typha angustifolia	runners

## 19 Sun-loving perennials

All sun-loving perennials need a lot of light but vary according to location. The column for locations lists the preferred locations, not all possible variants. Their typical occurrence in the wild is especially important for wild varieties, and this also goes for the varieties and is derived for the hybrids.

Genus/species/variety	Light span	Preferred location
Acaena species and varieties	sun - light shade	grasslands, river beds
Achillea filipendulina varieties	sun	rocky slopes, meadows
Achillea millefolium 'Cerise Queen'	sun	(semi-)xeric grassland communities
Achillea ptarmica 'Boule de Neige'	sun - light shade	damp meadows, swamps
Achillea tomentosa 'Aurea'	sun	dry meadows
Aconogonon speciosum 'Johanniswolke'	sun - semi-shade	moist, nutritious meadows
Ajuga reptans and varieties	sun - semi-shade	moist, nutritious meadows
Agastache rugosa	sun	stony open spaces
Alchemilla mollis	sun - light shade	river embankments, edges of forests
Alchemilla xanthochlora	sun - light shade	mountainous bushes, tall forb communities
Allium aflatunense	sun	dry and semi-dry grasslands, bushes
Alyssum montanum 'Berggold'	sun	rocky xeric grassland communities
Alyssum saxatile 'Compactum'	sun	boulder strips, gravelly surfaces
Anaphalis triplinervis 'Sommerschnee'	sun	mountainous meadows, rocky slopes
Anchusa azurea 'Dropmore'	sun	borders of paths, gravelly slopes





## Sun-loving perennials 19

Genus/species/variety	Light span	Preferred location	Genus/species/variety	Light span	Preferred location
<i>Anemone sylvestris</i>	sun - light shade	edges of forests, light pine forests	<i>Geranium renardii</i>	sun - light shade	rocky meadows, bushes
<i>Anemone tomentosa</i>	sun - off-sun	sunny locations at edges of forests, bushes	<i>Geranium sanguineum</i>	sun - semi-shade	xeric grassland communities, light forests
<i>Antennaria dioica</i> 'Rubra'	sun - no direct sunlight	heaths, pine forests	<i>Geum</i> species and varieties	sun - light shade	moist meadows, embankments, bushes
<i>Aquilegia vulgaris</i>	sun - semi-shade	light forests, edges of bushes	<i>Helenium cultorum</i>	sun	moist meadows, valley depressions
<i>Arabis caucasica</i> varieties	sun	rocky grass slopes	<i>Helianthemum cultorum</i>	sun - light shade	rocky, poor grasslands, edges of forests
<i>Artemisia schmidtiana</i> 'Nana'	sun	sandy-gravelly slopes, cliffs	<i>Helleborus orientalis</i>	sun - semi-shade	light forests
<i>Aster amellus</i>	sun	bushes and edges of forests	<i>Hemerocallis cultorum</i>	sun - light shade	moist meadows, forests on alluvial soil
<i>Aster divaricatus</i>	sun - semi-shade	light pine-oak forests, clear cutting	<i>Iberis sempervirens</i>	sun - no direct sunlight	moist, rocky slopes
<i>Aster dumosus</i>	sun	moist edges of forests	<i>Inula ensifolia</i>	sun	steppes, edges of bushes
<i>Aster novae-angliae</i>	sun	moist meadows, embankments, bushes	<i>Inula magnifica</i>	sun - semi-shade	moist, mountainous birch forests
<i>Aster novi-belgii</i>	sun - no direct sunlight	light meadows, embankments	<i>Iris Barbata</i> - <i>Elatior</i>	sun	steppes, gravelly ground
<i>Aster sedifolius</i> 'Nanus'	sun	submediterranean dry grassland	<i>Iris sibirica</i>	sun - light shade	moist meadows and bogs, ditches
<i>Aubrieta hybrids</i>	sun	rocky slopes	<i>Knautia macedonica</i>	sun	mountain meadows/forests, tall forb communities
<i>Astrantia major</i>	sun	mountain meadows/forests, tall forb communities	<i>Kniphofia hybrids</i>	sun	moist meadows, mountain slopes
<i>Azorella trifurcata</i>	sun - semi-shade	rocky slopes, moist grasslands	<i>Lathyrus latifolius</i>	sun - light shade	edges of hedges
<i>Buglossoides purpureo-caerulea</i>	sun - semi-shade	mixed forests rich with herbage	<i>Lavandula angustifolia</i>	sun	maquis, rocky ground
<i>Buphthalmum salicifolium</i>	sun - semi-shade	chalky grasslands, dry forests	<i>Leucanthemum vulgare</i>	sun	meadows
<i>Calamintha nepeta nepeta</i>	sun	gravelly ground, in walls	<i>Leucanthemum superbum</i>	sun	mountain meadows
<i>Campanula carpatica</i>	sun - light shade	boulder gravel, cracks in rock	<i>Leucanthemella serotina</i>	sun - light shade	floodplains, wet meadows, river embankments
<i>Campanula cochleariifolia</i>	sun - off-sun	rubble, crevices, grass	<i>Liatris spicata</i>	sun	wet meadows, pathsides
<i>Campanula glomerata</i>	sun - light shade	meadows, sunny edges of forests	<i>Linum perenne</i>	sun	steppes, rocky gravel
<i>Campanula poscharskyana</i>	sun - light shade	rocky-gravelly ground	<i>Lychnis coronaria</i>	sun	slopes, bushes, light forests
<i>Campanula rotundifolia</i>	sun - semi-shade	poor grasslands, edges of forests, rocky ground	<i>Lysimachia clethroides</i>	sun - semi-shade	moist light edges of forest, moist meadows
<i>Centranthus ruber</i>	sun - no direct sunlight	dry, rocky slopes, maquis	<i>Lythrum salicaria</i>	sun - semi-shade	bogs and damp meadows, ditches
<i>Cerastium tomentosum</i> 'Silberteppich'	sun	rocky-gravelly ground	<i>Malva moschata</i>	sun	meadows
<i>Cerastostigma plumbaginoides</i>	sun - semi-shade	bushes, light forests	<i>Matricaria caucasica</i>	sun	mountain meadows
<i>Coreopsis grandiflora</i>	sun	edges of forests	<i>Monarda fistulosa</i>	sun - light shade	mountain slopes, alluvial forests
<i>Coreopsis verticillata</i>	sun	edges of forests, bushes	<i>Nepeta faassenii</i>	sun	rocky ground
<i>Delphinium elatum</i> varieties	sun - no direct sunlight	mountainous meadows, light forests	<i>Oenothera missouriensis</i>	sun	rocky ground, edges of bushes
<i>Delphinium grandiflorum</i>	sun	rocky-gravelly ground	<i>Origanum vulgare</i>	sun	poor grasslands, edges of bushes
<i>Dianthus deltoides</i>	sun	poor grasslands, edges of bogs	<i>Paeonia lactiflora</i>	sun	meadows, light edges of forests
<i>Digitalis grandiflora</i>	sun - semi-shade	edges of forests, clearings	<i>Paeonia officinalis</i>	sun	mountain meadows, edges of forests
<i>Dryas suendermannii</i>	sun - no direct sunlight	gravel islands in rivers, rocky grasslands	<i>Phlomis russeliana</i>	sun	clear cutting, edges of bushes
<i>Echinacea pallida</i>	sun	dry, rocky meadows/prairies	<i>Phlox paniculata</i>	sun	rich meadows, light alluvial soil
<i>Echinacea purpurea</i>	sun	prairies, edges of path and forests	<i>Phlox subulata</i>	sun	gravelly surfaces, grassy slopes
<i>Echinops bannaticus</i>	sun	bedrock slopes, sunny bushes	<i>Platycodon grandiflorus</i> 'Mariesii'	sun - semi-shade	open meadows, slopes
<i>Echinops ritro</i>	sun	sunny rocky slopes/prairies	<i>Polemonium caeruleum</i>	sun - semi-shade	moist meadows, forests on alluvial soil
<i>Eupatorium fistulosum</i>	sun - semi-shade	mixed forests with plentiful herbage, alluvial soil, moist meadows	<i>Potentilla aurea</i>	sun	mountain meadows, dwarf shrub heaths
<i>Euphorbia myrsinites</i>	sun	rocky-gravelly ground, edges of forests	<i>Potentilla neumanniana</i>	sun	gravel, sandy soils, dry stone walls
<i>Euphorbia polychroma</i>	sun - light shade	light forests, edges of bushes	<i>Primula elatior</i>	sun - semi-shade	mountain meadows, alluvial forests
<i>Filipendula ulmaria</i>	sun - semi-shade	moist meadows to swamps, embankments	<i>Primula veris</i>	sun - semi-shade	semi-dry grass, dry meadows, light deciduous forests, edges of forests
<i>Fragaria vesca</i>	sun - semi-shade	light edges of forests	<i>Prunella grandiflora</i>	sun - semi-shade	semi-xeric grasslands, edges of forests
<i>Geranium cantabrigiense</i>	sun - light shade	rocky-gravelly ground, edges of forests	<i>Pulsatilla vulgaris</i>	sun	semi-xeric grasslands, rocky gravel
<i>Geranium cinereum</i> 'Ballerina'	sun	gravelly ground	<i>Rudbeckia fulgida</i> sullivantii	sun	moist edges of forests
<i>Geranium endressii</i>	sun - semi-shade	mountainous bushes, edges of forests	<i>Rudbeckia nitida</i>	sun	moist and mountainous meadows, cut lawns
<i>Geranium gracile</i> 'Sirak'	sun - no direct sunlight	bushes, edges of forests	<i>Sagina subulata</i>	sun - no direct sunlight	moist cracks in rocks
<i>Geranium himalayense</i>	sun - light shade	grassy slopes, light mountain forests	<i>Salvia nemorosa</i>	sun	semi-xeric grasslands, edges of forests
<i>Geranium macrorrhizum</i>	sun - semi-shade	talus, scree, light forests	<i>Salvia pratensis</i>	sun	nutritious meadows, grazing pastures
			<i>Sanguisorba officinalis</i>	sun - semi-shade	seasonally humid wet meadows, bog meadows





# 19 Sun-loving perennials

Genus/species/variety	Light span	Preferred location
Santolina chamaecyparissus	sun	maquis, rocky ground
Scabiosa columbaria	sun	chalky poor grasslands, bog meadows
Sedum acre	sun - no direct sunlight	rocky strips, gravelly surfaces
Sedum album	sun	bedrock grasslands, cracks in rock
Sedum floriferum	sun - no direct sunlight	mountainous, rocky ground
Sedum hybridum	sun - light shade	mountainous, rocky ground
Sedum spectabile	sun	rocky ground, cracks in rock
Sedum spurium 'Album Superbum'	sun - semi-shade	mountainous bedrock meadows, edges of streams
Sedum telephium 'Matrona'	sun	gravelly surfaces, edges of bushes
Solidago sphacelata	sun	dry forests, bushes
Stachys byzantina	sun	rocky ground, steppes
Symphytum azureum	sun	moist meadows
Teucrium lucidrys	sun	gravelly ground, poor grasslands, rocky steppes, light oak-pine forests
Thalictrum aquilegifolium	sun - semi-shade	wet bushes, alluvial forests, subalpine tall forb communities
Thymus species	sun	sandy and poor grasslands
Trollius chinensis	sun - no direct sunlight	moist meadows and bogs
Verbascum olympicum	sun	rocky slopes, rocky steppes
Verbascum phoenicum	sun	rocky meadows
Verbena bonariensis	sun	grass steppes, alternating wet river banks, fresh altitudes
Veronica austriaca teucrium	sun - light shade	semi-xeric grasslands, edges of bushes
Veronica longifolia	sun - semi-shade	alluvial soil, swamps and bogs
Veronica spicata incana	sun - light shade	xeric grasslands, gravelly meadows

## Grasses

Ammophila arenaria	sun	dunes
Bouteloua gracilis	sun	short grass prairie
Calamagrostis acutiflora	sun - semi-shade	clearings, moist meadows
Calamagrostis arundinacea brachytricha	sun	meadows, grazing, edges of bushes
Carex caryophyllea varieties	sun - semi-shade	(semi-)xeric grassland communities
Carex montana	sun - shade	chalk/poor grasslands, light forests
Cortaderia selloana	sun	river gravel, rocky meadows
Festuca cinerea	sun	strips of rock, semi-xeric grasslands
Festuca gautieri varieties	sun	gravelly ground, rocky slopes
Festuca mairei	sun	mountain meadows, light edges of forests
Festuca ovina	sun - semi-shade	oak-pine forests, heaths
Hakonechloa macra	sun - semi-shade	light forests, coasts, rocky slopes
Helictotrichon sempervirens	sun	chalky, poor grasslands
Koeleria glauca	sun	steppes, sandy grasslands, heaths, dunes
Leymus arenarius	sun	dunes
Melica ciliata	sun	gravelly ground, xeric grassland, steppes
Miscanthus giganteus	sun	moist meadows and swamps
Miscanthus sinensis	sun	moist meadows, alluvial soil
Molinia caerulea	sun - light shade	bogs and moist meadows
Panicum virgatum	sun	dry to moist meadows
Pennisetum alopecuroides	sun	meadows
Sesleria autumnalis	sun - semi-shade	gravelly ground, xeric grassland
Sesleria caerulea	sun - semi-shade	swamps, xeric to moist grasslands
Stipa pennata	sun	rocky ground, xeric grassland
Stipa pulcherrima	sun	rocky steppes, xeric grasslands
Stipa tenuissima	sun	rocky slopes, gravelly ground

Genus/species/variety	Light span	Preferred location
<b>Aquatic plants</b>		
Alisma plantago	sun - light shade	embankments, reed beds
Butomus umbellatus	sun	embankments, reed beds, ditches
Caltha palustris	sun - shade	embankments, swamps, alluvial forests
Iris pseudacorus	sun - light shade	embankments, reed beds
Nuphar lutea	sun - semi-shade	ponds
Nymphaea alba	sun	ponds
Phragmites australis	sun - no direct sunlight	reed beds, alluvial soil
Ranunculus lingua	sun - no direct sunlight	embankments, reed beds, ditches
Sagittaria sagittifolia	sun - light shade	embankments, reed beds, ditches
Scirpus tabernaemontanii	sun	embankments, reed beds
Stratiotes aloides	sun	ponds
Typha angustifolia	sun	embankments, reed beds, ditches

# 20 Semi-shade perennials

Here, species and varieties that need protection from direct sunlight or need semi-shady areas are listed. There are no clear distinctions between light shade and semi-shade. Some plants need exposure at the top without being directly hit by sun rays, such as in very light, large inner courts. Such areas have a high rate of light intensity. Light shade indicates constant change between sun spots and short shade times brought on by transparent branches. Semi-shade means: long periods of complete shade and short, but regularly occurring direct sunlight. The shade here is not dark as it is under conifers. Unlike with "no direct sunlight", shade changes in the course of the day.

Genus/species/variety	Light span	Preferred location
Aconitum carmichaelii	off-sun - semi-shade	humid forests
Aconitum napellus	no direct sunlight - semi-shade	mountainous alluvial forests
Ajuga reptans	(sun) - semi-shade	moist, nutritious meadows
Alchemilla epipsila	(sun) - semi-shade	river embankments, edges of forests
Alchemilla mollis	(sun) - semi-shade	river embankments, edges of forests
Alchemilla xanthochlora	sun - light shade	mountain bushes, tall forb communities
Anemone hupehensis	no direct sunlight to lightly shady	canyon forests, shady rocks
Anemone japonica	no direct sunlight to lightly shady	embankments
Anemone nemorosa	light shade	mixed deciduous forests
Anemone tomentosa	sun - off-sun	light edges of forests, bushes
Aquilegia alpina	light shade - semi-shade	grassy slopes, light mountain forests
Aquilegia tortorum	light shade - semi-shade	light forests
Aruncus aethusifolius	no direct sunlight - light shade	mixed deciduous forests
Aruncus dioicus	no direct sunlight - shade	beech-fir forests, hardwood meadows
Aster divaricatus	(sun) - semi-shade	light fir-oak forests, clearings
Astilbe arendsii	light shade - semi-shade	moist forests
Astilbe chinensis pumila	light shade	alluvial and deciduous forests
Astilbe chinensis taquetii	no direct sunlight - semi-shade	humid forests





Genus/species/variety	Light span	Preferred location	Genus/species/variety	Light span	Preferred location
Bergenia species and varieties	no direct sunlight - semi-shade	cranberry-pine forests, birch-larch forests	Ligularia species	light shade - semi-shade	mountainous alluvial forests, embankments
Brunnera macrophylla	no direct sunlight - semi-shade	moist mountainous shrub	Lysimachia nummularia	light shade - semi-shade	alluvial forests, ditches, meadows
Buglossoides purpureoerulea	(sun) - semi-shade	oak forests edges	Lysimachia punctata	light shade - semi-shade	alluvial forests, moist meadows
Buphthalmum salicifolium	sun - semi-shade	chalky poor grasslands, dry forests	Lythrum salicaria	sun - semi-shade	bogs and damp meadows, ditches
Campanula cochlearifolia	sun - off-sun	rubble, crevices, grass	Omphalodes verna	light shade - shade	mixed beech forests, alluvial soil
Campanula latifolia macrantha	sun - semi-shade	light mountain forests, mountain meadow	Polemonium caeruleum	(sun) - semi-shade	alluvial forests, moist meadows
Campanula persicifolia	light shade	oak-pine forests, embankments	Polygonatum multiflorum	light shade - shade	alluvial and mixed deciduous forests
Campanula rotundifolia	sun - semi-shade	poor meadows, edges of forests, rocky locations	Polygonum affine	(sun) - semi-shade	moist grasslands and bedrock
Campanula trachelium	sun - semi-shade	poor meadows, edges of forests	Primula elatior	sun - semi-shade	mountain meadow, alluvial forests
Centaurea montana	no direct sunlight - semi-shade	mountainous mixed forests	Primula veris	sun - semi-shade	semi-dry grass, dry meadows, light deciduous forests, edges of forests
Ceratostigma plumbaginoides	light shade - semi-shade	gravel, dams	Prunella grandiflora	sun - semi-shade	semi-xeric grasslands, edges of forests
Chelone obliqua	off-sun - semi-shade	humid forests	Pulmonaria species	no direct sunlight - semi-shade	mixed deciduous forests
Chrysogonum virginianum	light shade - semi-shade	edges of forests, light forests	Rodgersia species	light shade - shade	alluvial soil, moist forests
Cimicifuga species and varieties	light shade - shade	mixed deciduous forests with plentiful herbage	Sanguisorba officinalis	sun - semi-shade	seasonally humid wet meadows, bog meadows
Convallaria majalis	light shade - semi-shade	mixed deciduous forests	Saxifraga urbium	light shade - shade	gravelly meadows
Corydalis lutea	light shade - semi-shade	shady bedrock	Sedum spurium	sun - semi-shade	mountainous bedrock meadows, edges of streams
Dicentra eximia	light shade - shade	mountainous mixed deciduous forests	Symphytum grandiflorum	no direct sunlight - shade	montane mixed beech forests
Dicentra spectabilis	(sun) - light shade	pine-rhododendron forests	Thalictrum aquilegifolium	sun - semi-shade	humid bushes, alluvial forests, subalpinean tall forb communities
Digitalis grandiflora	(sun) - semi-shade	edges of forests, clearings	Tiarella cordifolia	light shade - shade	rich mountainous mixed forests
Digitalis purpurea species	no direct sunlight - semi-shade	edges of forests, clearings, heaths	Veronica longifolia	(sun) - semi-shade	alluvial soil, swamps and bogs
Doronicum orientale	light shade - semi-shade	edges of forests, mixed forests with plentiful herbage	Vinca species	(sun) - semi-shade	rocky forests, bushes
Epimedium perralderianum	light shade - shade	mountain deciduous and mixed conifer forests	Viola odorata	sun - semi-shade	bushes, edges of forests, pathsides
Epimedium versicolor	light shade - shade	mixed deciduous forests with herbage	Viola sororia	(sun) - semi-shade	wet meadows, edges of forests
Euphorbia amygdaloides	off-sun - semi-shade	chalky beech forests, oak-hornbeam forests, riparian forests	Waldsteinia geoides	light shade - shade	mixed deciduous forests, bushes
Filipendula ulmaria	sun - semi-shade	moist meadows, alluvial soil, ditches	Waldsteinia ternata	light shade - shade	edges of bushes, moist meadows
Fragaria vesca vesca	(sun) - semi-shade	clearings, edges of forests	<b>Grasses</b>		
Galium odoratum	light shade - shade	mixed deciduous forests with plentiful herbage	Carex conica	semi-shade	light forests
Geranium endressii	(sun) - semi-shade	mountainous shrub, edges of forests	Carex foliosissima species	no direct sunlight - semi-shade	light forests, edges of forests
Geranium macrorrhizum	(sun) - semi-shade	rocky forests, talus, scree	Carex grayi	sun - semi-shade	edges of forests, light forests
Geranium phaeum	no direct sunlight - semi-shade	clearings, edges of forests	Carex montana	sun - shade	chalk/poor grasslands, light forests
Geranium sanguineum	sun - semi-shade	xeric grassland communities, light forests	Carex morrowii	no direct sunlight - semi-shade	rich mixed deciduous forests
Geum species	(sun) - semi-shade	moist meadows, embankments, bushes	Carex pendula	light shade - shade	ash and alder forests, banks of streams
Helleborus foetidus	light shade - semi-shade	oak forests, beech bushes	Carex plantaginea	light shade - shade	moist forests
Helleborus niger	light shade - semi-shade	beech forests, alpine pine forests	Carex umbrosa	sun - shade	oak, beech, hornbeam forests
Helleborus Orientalis-Hybriden	sun - semi-shade	light forests	Deschampsia cespitosa	light shade - semi-shade	moist oak-beech forests
Hemerocallis cultorum	sun - semi-shade	mountainous moist meadows, alluvial soil	Festuca ovina	sun - semi-shade	oak-pine forests, heaths
Heuchera hybrids	light shade - semi-shade	light forests, moist areas	Luzula sylvatica	light shade - shade	oak, beech, fir forests
Hosta species and varieties	light shade - semi-shade	alder and pasture bushes, moist meadows, alluvial forests	<b>Ferns</b>		
Inula magnifica	sun - semi-shade	moist, mountainous birch forests	Athyrium filix-femina	light shade - shade	fir-beech forests, alluvial plains
Lamiastrum galeobdolon	no direct sunlight - shade	rich deciduous forests, hedges	Blechnum spicant	semi-shade - shade	forests with acidic soil, mostly conifer forests, rarely deciduous forests
Lamium orvala	semi-shade - shade	canyon forests, tall forb communities	Dryopteris affinis	light shade - semi-shade	beech-fir forests, mountainous perennials
Lamium maculatum	semi-shade - shade	moist deciduous forests, hedges	Dryopteris erythrosora	light shade - semi-shade	deciduous and mixed conifer forests
Lathyrus vernus	semi-shade	deciduous forests, rarely: mixed coniferous forests	Dryopteris filix-mas	light shade - shade	rich deciduous and mixed conifer forests
			Matteuccia struthiopteris	light shade - semi-shade	alluvial forests, embankment bushes





## 20 Semi-shade perennials

Genus/species/variety	Light span	Preferred location
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### Ferns

<i>Osmunda regalis</i>	light shade - semi-shade	birch-alder forests, ditches
<i>Phyllitis scolopendrium</i>	light shade - shade	ravine forests, moist bedrock
<i>Polystichum aculeatum</i>	light shade - shade	mixed forests
<i>Polystichum setiferum</i>	light shade - shade	mountainous mixed beech forests

### Aquatic plants

<i>Caltha palustris</i>	sun - shade	embankments, swamps, alluvial forests
<i>Nuphar lutea</i>	sun - semi-shade	ponds

## 21 Shade-loving perennials

Shade-loving perennials do not necessarily prefer deep shade far from the sun. Though there are a few genera that make do with 2% of the intensity of original sunlight, most shade-loving perennials prefer shade that is not too dark and is lightened at times by brief contact with wandering sun spots. Shade-loving perennials typically have light flower colours as the insects cannot recognise dark colours in the dark of the forest and leaves that remain pure green. This group of plants lacks protective mechanisms against evaporation such as white-tomentose-silvery leaves or blue wax coatings on the leaves.

Genus/species/variety	Light span	Preferred location
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<i>Aruncus dioicus</i>	no direct sunlight - shade	beech-fir forests, hardwood meadows
<i>Asarum europaeum</i>	light shade - shade	mixed deciduous and conifer forests
<i>Cimicifuga racemosa cordifolia</i>	light shade - shade	mixed deciduous forests with plentiful herbage
<i>Cimicifuga ramosa</i>	light shade - shade	moist beech-mixed meadows forests
<i>Dicentra eximia</i>	light shade - shade	mountainous mixed forests
<i>Epimedium grandiflorum</i>	light shade - shade	mixed forests
<i>Epimedium perralderianum</i>	light shade - shade	mountainous mixed deciduous forests
<i>Epimedium pinnatum colchicum</i>	semi-shade - light shade	light forests, edges of forests
<i>Epimedium versicolor</i>	light shade - shade	mixed forests rich with herbage
<i>Epimedium warleyense</i>	semi-shade - light shade	light forests, edges of forests
<i>Epimedium youngianum</i>	semi-shade - shade	mountainous forests with plenty of precipitation
<i>Eupatorium fistulosum</i>	(sun) - semi-shade - (shade)	alluvial forests, moist meadows
<i>Galium odoratum</i>	light shade - shade	mixed deciduous forests with plentiful herbage
<i>Geranium nodosum</i>	semi-shade - shade	xeric forests
<i>Helleborus foetidus</i>	semi-shade - (shade)	oak forests, beech bushes
<i>Lamium galeobdolon</i>	no direct sunlight - shade	rich deciduous forests, hedgese
<i>Lamium maculatum</i>	semi-shade - shade	moist deciduous forests, hedges
<i>Lamium orvala</i>	semi-shade - shade	canyon forests, tall forb communities, embankments
<i>Liriope muscari</i>	semi-shade - shade	light forests, bamboo groves
<i>Lysimachia punctata</i>	semi-shade - (shade)	alluvial soil, moist bushes
<i>Omphalodes verna</i>	light shade - shade	mixed beech forests, alluvial soil
<i>Ophiopogon planiscapus</i>	semi-shade - shade	mountainous moist forests
<i>Polygonatum multiflorum</i>	light shade - shade	alluvial and mixed deciduous forests

Genus/species/variety	Light span	Preferred location
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<i>Rodgersia species</i>	light shade - shade	alluvial soil, moist forests
<i>Saxifraga urbium</i>	light shade - shade	gravelly areas
<i>Symphytum grandiflorum</i>	no direct sunlight - shade	mountainous mixed beech forests
<i>Tellima grandiflora</i>	semi-shade - shade	embankments, moist conifer forests
<i>Tiarella cordifolia</i>	light shade - shade	rich mountainous mixed forests
<i>Waldsteinia geoides</i>	light shade - shade	mixed deciduous forests, bushes
<i>Waldsteinia ternata</i>	light shade - shade	edges of bushes, moist meadows

### Grasses

<i>Carex montana</i>	sun - shade	chalk/poor grasslands, light forests
<i>Carex morrowii</i>	semi-shade - (shade)	richly mixed deciduous forests
<i>Carex pendula</i>	light shade - shade	ash and alder forests, banks of streams
<i>Carex plantaginea</i>	light shade - shade	moist forests
<i>Carex sylvatica</i>	semi-shade - shade	moist mixed deciduous and conifer forests
<i>Deschampsia cespitosa</i>	semi-shade - (shade)	moist oak-beech forests
<i>Luzula sylvatica</i>	light shade - shade	beech and fir-spruce forests

### Ferns

<i>Athyrium filix-femina</i>	light shade - shade	fir-beech and alluvial forests
<i>Blechnum spicant</i>	semi-shade - shade	forests with acidic soil, mostly conifer forests, rarely deciduous forests
<i>Dryopteris affinis</i>	semi-shade - (shade)	beech-fir forests, mountainous perennial ground
<i>Dryopteris filix-mas</i>	light shade - shade	rich deciduous and mixed conifer forests
<i>Phyllitis scolopendrium</i>	light shade - shade	ravine forests, moist bedrock
<i>Polystichum setiferum</i>	light shade - shade	mountainous mixed beech forests

### Aquatic plants

<i>Caltha palustris</i>	(sun) - shade	alluvial forests, banks of streams, damp meadows
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## 22 Heath plants

The heath landscapes of northern and western Europe lack the variety of other vegetation units. Most species of trees, shrubs and perennials that occur here appear with a great number of individuals and few species. A few dominant varieties leave their mark impressively on the landscapes as we witness in the heaths of northern Germany, where *Calluna vulgaris*, *Juniperus communis* and others set the tone. In order to complement this monotonous, but attractive landscape with textures and structures, the heath perennials and grasses are ideal partners for and contrasts to these plants. All perennials that prefer sandy-humic, poor or moderately nutritious, acidic substrates should be short-listed. Such groupings cannot be planted on chalky, heavy soil. As all these plants generally need a lot of light, it is not always easy to find good partners for undergrowth.

Plants for heath gardens, see planning tips table no. 55

Genus/species/variety	Needs light	Tolerates shade
<b>Flower perennials</b>		
<i>Antennaria dioica</i> 'Rubra'	+	
<i>Bergenia cordifolia</i>		+
<i>Dianthus deltooides</i> and varieties	+	
<i>Digitalis purpurea</i> and varieties		+
<i>Potentilla aurea</i>	+	
<i>Thymus serpyllum</i> and varieties	+	
<b>Grasses</b>		
<i>Calamagrostis acutiflora</i> 'Karl Foerster'	+	
<i>Calamagrostis arundinacea brachytricha</i>	+	
<i>Festuca ovina</i>	+	+
<i>Koeleria glauca</i>	+	
<i>Luzula sylvatica</i>	+	+
<i>Melica ciliata</i>	+	
<i>Molinia caerulea</i>	+	+
<b>Ferns</b>		
<i>Dryopteris filix-mas</i>		+
<i>Polystichum setiferum</i>		+

## 23 Perennials for heavy soil

It is not always easy to plant greenery on loam and clay. Numerous perennials suffer, especially in winter, from the stagnant dampness that regularly occurs. As most perennials are very sensitive to winter dampness, many plants, especially those from the south, can be ruled out. The perennials listed tolerate heavy soil, but that does not mean that heavy soil is optimal for them.

Genus/species/variety	Genus/species/variety
<b>Flower perennials</b>	
<i>Achillea ptarmica</i> 'Boule de Neige'	
<i>Aconitum</i> species	
<i>Aconogonon speciosum</i> 'Johanniswolke'	
<i>Ajuga reptans</i> varieties	
<i>Anemone nemorosa</i>	
<i>Anemone sylvestris</i>	
<i>Aruncus dioicus</i>	
<i>Asarum europaeum</i>	
<i>Astilbe chinensis taquetii</i> 'Purpurlanze'	
<i>Bistorta officinalis</i> 'Superbum'	
<i>Brunnera macrophylla</i>	
<i>Centaurea montana</i>	
<i>Chrysanthemum serotinum</i>	
<i>Filipendula ulmaria</i>	
<i>Fragaria vesca semperflorens</i> varieties	
<i>Geum coccineum</i> 'Borisii'	
<i>Hemerocallis cultorum</i> varieties	
<i>Hosta</i> species and varieties	
<i>Inula magnifica</i>	
<i>Lamium galeobdolon</i> 'Florentinum'	
<i>Lamium maculatum</i> and varieties	
<i>Ligularia</i> species	
<i>Lysimachia nummularia</i>	
<i>Lysimachia punctata</i>	
<i>Lythrum salicaria</i>	
<i>Polemonium caeruleum</i>	
<i>Polygonum affine</i> varieties	
<i>Primula elatior</i>	
<i>Prunella grandiflora</i>	
<i>Rudbeckia nitida</i> varieties	
<i>Symphytum grandiflorum</i>	
<i>Tellima grandiflora</i>	
<i>Trollius chinensis</i> varieties	
<i>Waldsteinia geoides</i>	
	<b>Grasses</b>
	<i>Calamagrostis acutiflora</i> 'Karl Foerster'
	<i>Carex montana</i>
	<i>Carex morrowii</i> 'Variegata'
	<i>Carex pendula</i>
	<i>Carex umbrosa</i>
	<i>Deschampsia cespitosa</i>
	<i>Miscanthus</i> species and varieties
	<i>Molinia</i> species
	<b>Ferns</b>
	<i>Matteuccia struthiopteris</i>
	<i>Osmunda regalis</i>







## 24 Perennials for damp areas and floods

In addition to the perennials that are truly for planting on the edge of water, many varieties like it moist and some even tolerate short floods. Such perennials are the best transitional plants between genuine embankment vegetation and the perennials that prefer "fresh soil".

Genus/species/variety	Tolerates dampness	Tolerates floods
Achillea ptarmica 'Boule de Neige'	+	
Anemone nemorosa	+	+
Aster novi-belgii	+	
Astilbe chinensis taquetii 'Purpurlanze'	+	
Astrantia major	+	
Brunnera macrophylla	+	
Chrysogonum virginianum	+	
Eupatorium fistulosum 'Atropurpureum'	+	+
Filipendula ulmaria	+	+
Hemerocallis cultorum	+	
Inula magnifica	+	
Iris sibirica varieties	+	
Leucanthemum serotinum	+	+
Ligularia species	+	
Lysimachia nummularia	+	
Lysimachia punctata	+	
Lythrum salicaria	+	+
Polemonium caeruleum	+	
Polygonum affine varieties	+	
Primula elatior	+	
Sedum spurium greenleaf varieties	+	+
Tellima grandiflora	+	+
Veronica longifolia	+	
<b>Grasses</b>		
Carex pendula	+	+
Deschampsia cespitosa	+	+
Luzula sylvatica	+	+
Miscanthus giganteus	+	+
Molinia caerulea	+	
Sesleria caerulea	+	
<b>Ferns</b>		
Athyrium filix-femina	+	
Matteuccia struthiopteris	+	
Osmunda regalis	+	+
<b>Swamp and aquatic plants</b>		
Alisma plantago	+	+
Butomus umbellatus		+
Caltha palustris	+	+
Iris pseudacorus	+	+
Phragmites australis	+	+
Typha angustifolia	+	+

## 25 Indigenous wild perennials

Like the central-European wild plants, indigenous wild perennials usually are not equally spread across the whole region, but rather occur in limited areas. Some are considered local specialities and only occur in special niche situations. Before they are planted in open landscapes, the conditions at the site should be analysed lest the flora be adulterated.

Genus/species/variety	Genus/species/variety
<b>Flower perennials</b>	
Aconitum napellus	Filipendula ulmaria
Ajuga reptans	Fragaria vesca vesca
Alchemilla xanthochlora	Galium odoratum
Allium sphaerocephalon	Geranium phaeum
Anemone nemorosa	Geranium sanguineum
Anemone sylvestris	Helleborus foetidus
Antennaria dioica	Helleborus niger
Aquilegia alpina	Inula ensifolia
Aquilegia vulgaris	Lamium maculatum
Aruncus dioicus	Lamium orvala
Asarum europaeum	Lathyrus vernus
Aster linosyris	Lysimachia nummularia
Astrantia major	Lysimachia punctata
Bistorta officinalis	Lythrum salicaria
Buglossoides purpureoerulea	Malva moschata
Buphthalmum salicifolium	Polemonium caeruleum
Calamintha nepeta nepeta	Polygonatum multiflorum
Campanula cochleariifolia	Potentilla aurea
Campanula latifolia macrantha	Potentilla neumanniana
Campanula portenschlagiana	Primula elatior
Campanula rotundifolia	Primula veris
Campanula trachelium	Prunella grandiflora
Centaurea montana	Pulsatilla vulgaris
Convallaria majalis	Salvia pratensis
Corydalis lutea	Sedum acre
Dianthus carthusianorum	Sedum album
Dianthus deltoides	Thalictrum aquilegifolium
Digitalis grandiflora	Thymus pulegioides
Echinops ritro	Thymus serpyllum
Epimedium alpinum	Veronica austriaca teucrium
Eryngium planum	Veronica longifolia
Euphorbia cyparissias	Viola odorata
Euphorbia polychroma	

The colour selections of wild varieties that can also occur in the wild are listed.





Genus/species/variety	Genus/species/variety
<b>Grasses</b>	
Ammophila arenaria	Iris pseudacorus
Carex montana	Nuphar lutea
Carex pendula	Nymphaea alba
Deschampsia cespitosa	Phragmites australis
Festuca cinerea	Ranunculus lingua
Festuca gautieri	Sagittaria sagittifolia
Festuca ovina	Stratiotes aloides
Koeleria glauca	Typha angustifolia
Leymus arenarius	
Luzula sylvatica	
Melica ciliata	
Molinia caerulea	
Sesleria caerulea	
Stipa pulcherrima	
	<b>Ferns</b>
	Athyrium filix-femina
	Blechnum spicant
	Dryopteris affinis
	Dryopteris filix-mas
	Matteuccia struthiopteris
	Osmunda regalis
	Phyllitis scolopendrium
	Polystichum aculeatum
	Polystichum setiferum
<b>Aquatic plants</b>	
Alisma plantago	
Butomus umbellatus	
Caltha palustris	

## 26 Farm garden

Farm gardens have always been more than merely decorative; they have always contained a combination of decorative plants, cut plants, spices, vegetables, and medicinal plants. The gardens usually were arranged geometrically like monastic gardens. Border plants were created from plants tolerant of cutting like Buxus and shrubs like Lavandula or, less often, from perennials. The indigenous and the exotic were casually juxtaposed. Colourful, densely double perennials were especially popular. Regional preferences were once easier to distinguish than nowadays. The various needs of the plants depending on location were seldom attended to, and when they were, it was usually "compensated for" with an extra portion of manure.

As farm gardens were positioned to have full sun, there was usually only space for a lightly sunny or semi-shady bed under apple or pear trees.

Genus/species/variety	Main use
<b>Sunny areas</b>	
Achillea Clypeolata hybride 'Moonshine'	decoration, cutting
Achillea Filipendulina hybride 'Credo'	decoration, cutting
Achillea Millefolium hybride 'Terracotta'	decoration, cutting
Aconitum napellus	medicine, decoration
Aquilegia cultorum	decoration, cutting
Aster novi-belgii	decoration
Astrantia major varieties	cutting
Campanula species	decoration, some vegetables
Dianthus plumarius	scent, cutting

Genus/species/variety	Main use
Dicentra spectabilis	decoration, symbol plant
Echinops bannaticus	decoration
Echinops ritro	cutting
Fragaria vesca semperflorens	fruits
Fragaria vesca vesca	fruits
Gypsophila paniculata	cutting
Helleborus niger	decoration, medicine
Humulus lupulus	medicine
Iberis sempervirens	decoration, borders
Iris barbata elatior	decoration, cutting
Iris sibirica	decoration
Lavandula angustifolia	cut borders, scent
Leucanthemum vulgare	decoration
Liatris spicata	cutting
Malva moschata	medicine
Monarda fistulosa	decoration, scent
Nepeta faassenii	borders, decoration
Origanum vulgare	spice
Paeonia officinalis 'Rubra Plena'	medicine, cutting
Papaver orientale	decoration
Phlox paniculata	decoration
Primula elatior	decoration
Rudbeckia fulgida deamii	decoration
Salvia nemorosa	medicine, decoration
Sedum spectabile	medicine, decoration
Sedum spurium 'Album Superbum'	borders
Scabiosa columbaria	decoration, cutting
Stachys byzantina	borders, decoration
Thymus species	spice, scent
Vinca minor	medicine, decoration

### Lightly shady to semi-shady

Aconitum napellus	medicine, decoration
Aruncus dioicus	decoration
Bergenia cordifolia	borders
Centaurea montana	decoration
Chelone obliqua	cutting
Convallaria majalis	scent, cutting, medicine
Dicentra spectabilis	decoration, symbol plant
Digitalis purpurea	medicine
Doronicum species	cutting
Dryopteris filix-mas	medicine
Galium odoratum	scent, medicine
Hosta species	borders, decoration
Vinca minor	decoration, medicine

### Plants from the farm garden

Cornus mas	fruits
Corylus avellana	fruits
Hedera helix	decoration
Laburnum species	decoration
Ligustrum vulgare	border hedge
Lonicera caprifolium	scent, twined pergola
Lonicera periclymenum	scent, twined pergola

\*extensive: soil layer between 6-10 cm \*\*simple intensive: soil layer between (8) 10-15 cm





## 27 Farm garden

Genus/species/variety	Main use
<b>Plants from the farm garden</b>	
Mespilus germanica	fruits
Philadelphus coronarius	decoration
Rosa - old, double varieties	decoration, scent
Rosa - wild varieties	rose hips
Sambucus nigra	fruits, medicine
Syringa vulgaris	decoration, cutting
Taxus baccata	borders, topiary
Viburnum opulus 'Sterile'	decoration
Fruit plants of all kinds	fruits

## 27 Extensive and simple, intensive roof greenery

There is no clear distinction made between extensive and simple, intensive roof greenery. The depth for the roots determines which perennials are possible. The more shallow the soil, the more limited the palette of possible, robust perennials. The deeper the substrate, the larger the competition will be between the plants. With each improvement of the substrate, the weakly competitive species will be increasingly overgrown. The more shallow the soil, the more the demanding varieties will wither or dry out.

Genus/species/variety	Extensive*	Simple intensive**
Achillea tomentosa		+
Alyssum montanum		+
Alyssum saxatile		+
Anemone sylvestris		+
Arabis caucasica		+
Artemisia schmidtiana 'Nana'		+
Azorella trifurcata	+	
Calamintha nepeta nepeta	+	+
Campanula glomerata		+
Centranthus ruber varieties		+
Cerastium tomentosum 'Silberteppich'	+	
Dianthus deltooides varieties	+	
Epimedium pinnatum colchicum		
Epimedium warleyense 'Orangekönigin'		
Geranium cantabrigiense 'Biokovo'	+	+
Geranium cinereum 'Ballerina'		
Geranium macrorrhizum varieties		+
Geranium renardii		+
Geranium sanguineum	+	+
Inula ensifolia		+
Iris Barbata-Nana varieties	+	
Linum perenne	+	+
Nepeta faassenii		+
Origanum vulgare varieties	+	+
Prunella grandiflora		+
Pulsatilla vulgaris		+

\*extensive: soil layer between 6-10 cm \*\*simple intensive: soil layer between (8) 10-15 cm

Genus/species/variety	Extensive*	Simple intensive**
Sedum acre	+	
Sedum album 'Coral Carpet'	+	
Sedum floriferum 'Weihenstephaner Gold'	+	
Sedum hybridum 'Immergrünchen'	+	
Sedum spectabile 'Carl'		
Sedum spectabile varieties		+
Sedum spurium 'Album Superbum'	+	
Sedum telephium 'Herbstfreude'		+
Sedum telephium 'Matrona'		
Stachys byzantina varieties	+	+
Thymus species	+	
Veronica spicata		+

### Grasses

Carex montana	+	
Festuca cinerea	+	
Festuca ovina	+	
Helictotrichon sempervirens		+
Stipa pulcherrima		+





## 28 Medicinal plants

Knowledge about the effects of medicinal plants is very old. Much of the knowledge our ancestors collected has been scientifically confirmed in recent years. Other effects are best seen as beliefs and superstition. As it is forbidden by national conservation laws to collect medicinal plants in the wild, it is recommended that they be planted in gardens. Medicinal plants should be used with caution; for small wounds, self-treatment is justified, but a doctor must be visited for serious illnesses and injuries. Numerous medicinal plants are also poisonous, can lead to allergies, or have other side effects. Inform yourself thoroughly before any applications.

Genus/species/variety	Plant parts used	Medicinal effects
<i>Achillea millefolium</i>	dried leaves, flowers	intestinal and stomach pains, menstrual pains, wounds
<i>Aconitum</i> species	rhizome (extremely poisonous)	colds, pain-killer (caution)
<i>Alchemilla mollis</i>	dried leaves	intestinal and stomach pains, menstrual pains
<i>Antennaria dioica</i>	dried flowers	intestinal and stomach pains
<i>Asarum europaeum</i>	roots	asthma, intestinal and stomach pains
<i>Centranthus ruber</i>	roots	sleep disturbances
<i>Cimicifuga racemosa</i>	roots	menstrual pains, gout, rheumatism, asthma
<i>Convallaria majalis</i>	dried leaves, flowers (poisonous)	heart disease (caution)
<i>Digitalis purpurea</i>	dried leaves, (poisonous)	heart pain (caution)
<i>Dryopteris filix-mas</i>	roots (poisonous)	vermicide (caution), phlebitis
<i>Echinacea purpurea</i>	fresh leaves, roots	colds, anti-inflammatory
<i>Eryngium planum</i>	fresh herbage, roots	whooping cough, antispasmodic
<i>Filipendula ulmaria</i>	dried flowers, roots	fever, gout, rheumatism
<i>Fragaria vesca vesca</i>	dried leaves, fruits	cleans blood
<i>Galium odoratum</i>	dried young leaves	sleep disturbances, antispasmodic
<i>Helleborus niger</i>	roots (poisonous)	laxative, headaches
<i>Lysimachia nummularia</i>	fresh shoots	heals wounds, clots blood
<i>Lythrum salicaria</i>	fresh or dried leaves	clots blood, heals wounds, digestive disturbances
<i>Malva moschata</i>	all parts, fresh or dry	colds, gynaecological infection / intestinal and stomach pains
<i>Monarda fistulosa</i>	dried leaves, flowers	tranquillising, heals wounds
<i>Origanum vulgare</i>	dried leaves	appetite stimulant, colds
<i>Paeonia officinalis</i>	seeds, roots	gout, rheumatism
<i>Phyllitis scolopendrium</i>	dried leaves	bronchitis, liver ailments
<i>Physalis alkekengi</i>	mature fruits	bladder ailments, gout, rheumatism
<i>Primula elatior</i>	dried roots, flowers	colds, bladder ailments
<i>Prunella grandiflora</i>	dried leaves	eye inflammation, heals wounds
<i>Pulmonaria officinalis</i>	dried leaves	colds
<i>Sedum acre</i>	fresh leaves	heals wounds, burns
<i>Symphytum</i> species	roots	bruises, broken bones
<i>Thymus</i> species	fresh or dried leaves	colds, gout, rheumatism
<i>Vinca minor</i>	flowering shoots	skin cancer, colds

Genus/species/variety	Plant parts used	Medicinal effects
<b>Woody plants</b>		
<i>Abies alba</i>	needles, young twigs	colds, rheumatism
<i>Aesculus hippocastanum</i>	skinned fruits, flowers (poisonous)	phlebitis, intestinal and stomach pains
<i>Alnus</i> species	young bark	sore throats
<i>Arctostaphylos uva-ursi</i>	dried leaves	bladder ailments
<i>Berberis vulgaris</i>	root bark	liver and gall ailments, menstrual pains
<i>Betula pendula</i> a.o.	dried young leaves	gout, rheumatism, nephritis
<i>Calluna vulgaris</i>	dried flowering twigs	sedative, gout, rheumatism
<i>Castanea sativa</i>	dried leaves	whooping cough
<i>Crataegus laevigata</i>	dried leaves, flowers, fruits	lowers blood pressure, heart disease
<i>Crataegus monogyna</i>	as above	
<i>Cytisus scoparius</i>	flowers, dried herbage (poisonous)	heart disease, cleans blood
<i>Fraxinus excelsior</i>	dried leaves, young bark	gout, rheumatism, bladder ailments, ulcers
<i>Hamamelis virginiana</i>	dried leaves, bark	clots blood, phlebitis
<i>Hedera helix</i>	young sprouts and leaves (poisonous)	whooping cough, rheumatism
<i>Juglans regia</i>	fresh or dried leaves, green fruit skin	anti-inflammatory, intestinal and stomach pains, gout
<i>Juniperus communis</i>	dried berries, twig tips	appetite stimulant, rheumatism, gout
<i>Larix decidua</i>	resin	abscesses, rheumatism
<i>Lavandula angustifolia</i>	flower buds	sleep disturbances, migraines
<i>Picea abies</i>	needles	colds
<i>Pinus mugo</i>	needles, young twigs tips	bronchitis, rheumatism
<i>Populus nigra</i>	dried spring buds	rheumatism, gout, bronchitis
<i>Populus tremula</i>	young bark and leaves	rheumatism, gout, bladder ailments
<i>Prunus padus</i>	fresh bark	gout, rheumatism, fever
<i>Prunus spinosa</i>	dried flowers, fruits	laxative, bladder problems
<i>Rhamnus catharticus</i>	fruits, young bark	laxative
<i>Rhamnus frangula</i>	dried bark (poisonous)	laxative
<i>Ribes nigrum</i>	dried leaves, fruits	gout, rheumatism, whooping cough
<i>Robinia pseudoacacia</i>	dried bark (poisonous)	migraines, facial neuralgia
<i>Rosa canina</i>	rose hips without seeds	kidney and bladder ailments, exhaustion
<i>Rubus fruticosus</i>	dried leaves	colds
<i>Salix</i> species	dried bark	pain-killer („Aspirin“)
<i>Sambucus nigra</i>	all parts, fresh or dry	colds, sudorific
<i>Sorbus aucuparia</i>	berries, fresh or dry, flowers	menstrual pains, rheumatism, colds
<i>Tilia</i> species	dried flowers	colds, intestinal and stomach pains
<i>Vaccinium vitis-idaea</i>	dried leaves	bladder ailments
<i>Viburnum opulus</i>	dried bark	menstrual pains, antispasmodic





## 29 Edible perennials

The perennials presented here should not be seen as competition for vegetables and lettuce; rather, the readers are encouraged to try something unusual, to give their own cooking an exotic taste and expand on the selection of spices. Some of these plants used to grow in kitchen gardens, though they are only known as decorative plants today.

Plants that have been used for ages in food, but could lead to allergies, such as *Achillea millefolium*, have been left out of the list.

Genus/species/variety	Usable plant parts	Dish/drink	Taste
<i>Alchemilla mollis</i>	young leaves, fresh and dried	spices, salads	bitter-sweet-spicy, older plants withering
<i>Allium giganteum</i>	flowers	salads, decoration	
<i>Anchusa azurea</i>	young leaves, flowers	vegetables, colourful decoration in salads, food colouring	like borscht, like cucumbers
<i>Butomus umbellatus</i>	roots, rhizomes	vegetables, ground-flour	mild
<i>Calamintha nepeta nepeta</i>	young leaves - dried	herbal tea, tea, spice	like peppermint
<i>Campanula persicifolia</i>	roots	cooked as a salad et al.	sweetish-mild
<i>Centranthus ruber</i>	young leaves	salads, vegetables	like lamb's lettuce
<i>Chrysanthemum leucanthemum</i>	young leaves, sprouts before flowering	salads, vegetables	tangy
<i>Chrysanthemum maximum</i>	petals, inflorescences	salads, also fried	more for decoration, flowery-mild
<i>Coreopsis grandiflora</i>	petals	gives food a yellow tinge	tasteless
<i>Dianthus plumarius</i>	upper parts of petals (bitter at the base)	salads, marmalade, vinegar, liqueur, candied	fragrant like flowers
<i>Eryngium planum</i>	sprouts before flowering, roots	salads, vegetables	sweetish-spicy hot
<i>Filipendula ulmaria</i>	young leaves, dried	additive in herbal beer, wine, herbal tea, soup, spice, in marmalade	aromatic somewhat reminiscent of „chewing gum“
<i>Fragaria vesca semperflorens</i>	fruits		sweet
<i>Fragaria vesca vesca</i>	fruits, young leaves dried	fruit, marmalade, herbal tea	sweet,, intense aroma, aromatic-bitter
<i>Galium odoratum</i>	leaves, sprouts before	tea, punch, potpourri	pleasant scent, aromatic, most aromaticwhen slightly dry
<i>Hemerocallis cultorumn</i>	young leaves, flower buds	vegetables soup spice	peppery hot like horseradish
<i>Hosta species</i>	youngest leaves in spring	salad, vegetables	neutral
<i>Lamium maculatum</i>	young leaves, sprouts before flowering	vegetables	like spinach
<i>Lavandula angustifolia</i>	young leaves - dried, flowers - dried	spice spice, potpourri tea or tea additive, vinegar, marmalade additive	bitter-spicy
<i>Lythrum salicaria</i>	young leaves, sprouts before flowering, flowers	vegetables, tea, sweets decoration	mild-tart
<i>Malva moschata</i>	young shoots	vegetables and immature seed capsules	like capers, leaves like spinach
<i>Monarda fistulosa</i>	young leaves before flowering - dried, flowers	salad, spice herbal tea, marmalade, exotic drinks, tea, salad, spices potpourri	like peppermint to balm, spicy-aromatic
<i>Origanum vulgare 'Compactum'</i>	young leaves, leaves dried	spice	spicy-aromatic
<i>Prunella grandiflora</i>	young leaves, sprouts before flowering	soup, salads, vegetables	mild-neutral
<i>Pulmonaria angustifolia</i>	fresh leaves before flowering	soup, salads, vegetables	slightly spicy
<i>Sagittaria sagittifolia</i>	root tubers - dried	vegetables ground as flour	like peas or nuts (if the ducks leave any)
<i>Sedum acre</i>	young leaves, young (small) shoot pieces	spicy, only in small amounts!	peppery hot
<i>Sedum reflexum</i>	young leaves	soups, salads	sour
<i>Sedum telephium</i>	young leaves	soups, salads	tangy
<i>Symphytum grandiflorum</i>	young spring leaves, young stems, whole flowers	salad, vegetables fried, salad (decoration) fried	like spinach, spicy hot, flowers-spicy
All species of <i>Thymus</i>	leaves, stems - dried	spice, potpourri	aromatic
<i>Typha angustifolia</i>	young sprouts, flower tips, before flowering, roots dried	salad, vegetables, vegetables flour	tangy, sweetish-spicy hot





## 30 Butterfly perennials

Starting in July or August, certain perennials are frequented by butterflies, especially on hot-humid days. The number of butterflies changes from year to year, depending on the strength of the previous winter. The following are often found on the perennials listed below: Red admiral, painted lady (thistle butterfly), small tortoiseshell, peacock butterfly, and sillagowhittings.

### Genus/species/variety

Achillea millefolium	Lavandula angustifolia varieties
Agastache Rugosa hybrid 'Black Adder'	Lythrum salicaria
Aster species and varieties	Monarda varieties
Centranthus ruber 'Coccineus'	Nepeta faassenii varieties
Cimicifuga species and varieties	Origanum species and varieties
Dianthus carthusianorum	Peppermint species
Dianthus species and varieties	Phlox paniculata varieties
Echinacea pallida	Prunella grandiflora
Echinacea purpurea	Salvia species and varieties
Echinops species and varieties	Scabiosa columbaria 'Butterfly Blue'
Echinops ritro	Sedum telephium 'Herbstfreude'
Erigeron hybrids	Teucrium lucidrys
Helenium cultorum	Verbena bonariensis 'Lollipop'
Inula species	



## 31 Bee friendly perennials

Insect decline and bee mortality - these terms are not only in the media at the moment, and for good reason. Studies show that the biomass of insects has decreased by up to 75% within the last 30 years. A large proportion of our host-specific wildflower species are currently threatened with extinction.

Since insects are of enormous importance for the balance in our ecosystems, there is a growing desire among the population to support wild bees and the like. This means preserving habitats and providing insects with more food. Insects need a long-lasting and abundant supply of nectar and pollen from March to September. A balanced mix of woody plants, perennials, geophytes and annual plants is crucial in order to ensure insect diversity and biodiversity.

### Genus/species/variety

Achillea species and varieties	Helianthemum varieties
Aconitum species and varieties	Helianthus species and varieties
Agastache Rugosa hybrids	Helleborus hybrids
Ajuga reptans	Iberis sempervirens varieties
Alcea rosea varieties	Inula ensifolia
Alchemilla species	Iris species and varieties
Allium species	Knautia macedonica varieties
Anaphalis triplivervis	Kniphofia varieties
Anemone species and varieties	Lamium orvala
Aquilegia vulgaris	Lathyrus vernus
Arabis procurrans	Lavandula angustifolia varieties
Artemisia schmidtiana	Liatris spicata
Aruncus dioicus	Lychnis coronaria
Aster species and varieties	Lysimachia clethroides
Astrantia major	Lythrum salicaria
Bergenia hybrids	Monarda species and varieties
Bistorta species and varieties	Nepeta faassenii varieties
Buglossoides purpureoaeerulea	Ophiopogon planiscapus 'Nigriscens'
Buphthalmum salicifolium	Origanum species and varieties
Calamintha nepeta nepeta	Paeonia species and varieties
Campanula species and varieties	Phlox divaricata
Centranthus ruber	Primula veris
Chelone obliqua	Prunella grandiflora 'Rubra'
Chrysogonum virginianum	Pulmonaria varieties
Cimicifuga species	Rudbeckia fulgida deamii
Coreopsis verticillata	Salvia species and varieties
Dianthus species	Scabiosa columbaria
Digitalis grandiflora and D. purpurea	Sedum species and varieties
Dryas suendermannii	Solidago sphacelata
Echinacea species and varieties	Thymus species and varieties
Echinops ritro	Verbascum species and varieties
Epimedium species and varieties	Verbena bonariensis
Eupatorium species	Veronica species and varieties
Euphorbia species and varieties	Veronicastrum virginicum varieties
Geranium species and varieties	Viola labradorica
Geum species and varieties	Waldsteinia geoides
Helenium varieties	

