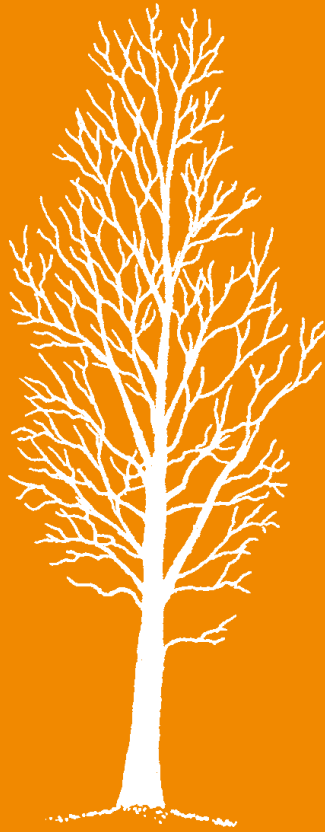
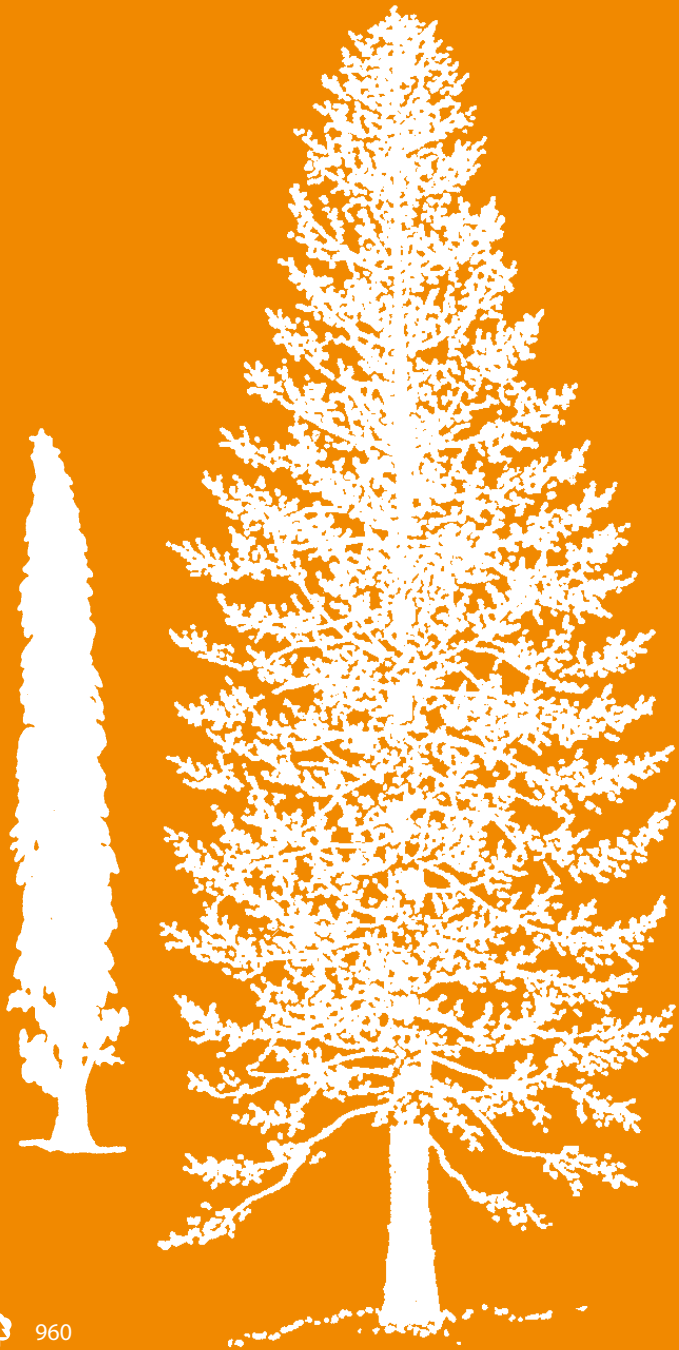


Planning tips Trees and Shrubs

Appearance





Appearance

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1 Groups according to size and growth rates

Though plants grow according to their species, they vary within certain limits depending on whether conditions are minimal or optimal. In addition, habit sizes are greatly influenced by the climatic region. Note: In order to be able to take account of all the various plant forms, border cases were included in all categories wherever they may occur.

Categorisation of Deciduous plants und Conifers

1. Large trees 20 - 40 m
2. Medium-size trees 12/15 - 20 m
3. Small trees 7 - 12/15 m
4. Large shrubs 3 - 5/7 m
5. Normal shrubs / medium shrubs 1,5 - 3 m
6. Small shrubs 0,5 - 1,5 m
7. Dwarf shrubs 0,1 - 0,5 m
8. Semi-shrubs (base lignified, shoots not)

Deciduous plants

1. Large trees 20 - 40 m	Genus/species/variety	Height	Width
	Acer platanoides	20 to 30 m	8 to 15 m
	Acer pseudoplatanus	20 to 40 m	12 to 20 m
	Acer pseudoplatanus 'Erectum'	15 to 25 m	6 to 10 m
	Acer pseudoplatanus 'Negenia'	0 to 30 m	6 to 10 m
	Acer saccharinum	20 to 30 m	15 to 20 m
	Acer saccharum	15 to 25 m	10 to 14 m
	Aesculus hippocastanum	20 to 25 m	12 to 15 m
	Ailanthus altissima	18 to 25 m	8 to 15 m
	Alnus glutinosa	8 to 30 m	8 to 10 m
	Betula papyrifera	18 to 30 m	10 to 18 m
	Betula pendula	8 to 30 m	6 to 8 m
	Betula pendula 'Tristis'	8 to 30 m	6 to 8 m
	Castanea sativa	10 to 35 m	10 to 20 m
	Celtis australis	10 to 25 m	8 to 10 m
	Fagus sylvatica 'Riversii'	25 to 30 m	10 to 15 m
	Fagus sylvatica 'Atropunicea'	25 to 40 m	10 to 25 m
	Fagus sylvatica	25 to 40 m	10 to 25 m
	Fraxinus excelsior	20 to 40 m	10 to 25 m
	Fraxinus excelsior 'Altena'	20 to 30 m	10 to 15 m
	Fraxinus excelsior 'Westhof's Glorie'	20 to 40 m	8 to 12 m
	Gleditsia triacanthos	15 to 25 m	8 to 10 m
	Gleditsia triacanthos inermis	15 to 25 m	8 to 10 m
	Juglans cinerea	18 to 25 m	8 to 10 m
	Juglans nigra	20 to 30 m	20 to 30 m
	Liriodendron tulipifera	25 to 35 m	12 to 20 m
	Liquidambar styraciflua 'Moraine'	10 to 25 m	6 to 10 m
	Platanus acerifolia	25 to 30 m	15 to 25 m
	Platanus acerifolia 'Tremonia'	15 to 30 m	15 to 25 m
	Platanus orientalis	25 to 35 m	15 to 20 m
	Populus alba 'Nivea'	20 to 35 m	12 to 20 m
	Populus balsamifera	10 to 25 m	8 to 12 m
	Populus berolinensis	20 to 25 m	8 to 10 m
	Populus canadensis 'Robusta'	30 to 35 m	12 to 15 m
	Populus canescens	20 to 25 m	15 to 20 m
	Populus nigra	20 to 30 m	15 to 20 m
	Populus nigra 'Italica'	25 to 30 m	2 to 5 m



Groups according to size and growth rates 1 Deciduous plants

1. Large trees 20 - 40 m	Genus/species/variety	Height	Width
	Pseudotsuga menziesii caesia	30 to 40 m	7 to 10 m
	Quercus cerris	20 to 30 m	8 to 15 m
	Quercus frainetto	20 to 30 m	10 to 15 m
	Quercus petraea	20 to 40 m	15 to 20 m
	Quercus robur	30 to 40 m	15 to 25 m
	Quercus rubra	20 to 30 m	10 to 15 m
	Robinia pseudoacacia	15 to 20 m	7 to 12 m
	Robinia pseudoacacia 'Sandraudiga'	15 to 25 m	8 to 12 m
	Robinia pseudoacacia 'Semperflorens'	20 to 25 m	8 to 12 m
	Salix alba	10 to 20 m	8 to 15 m
	Salix alba 'Liempde'	25 to 40 m	8 to 10 m
	Tilia cordata	20 to 30 m	10 to 20 m
	Tilia europaea	25 to 40 m	10 to 15 m
	Tilia europaea 'Pallida'	30 to 40 m	10 to 15 m
	Tilia henryana	9 to 25 m	8 to 10 m
	Tilia platyphyllos	30 to 40 m	15 to 25 m
	Tilia platyphyllos 'Rubra'	30 to 40 m	20 m
	Tilia tomentosa	25 to 30 m	20 m
	Tilia tomentosa 'Brabant'	20 to 25 m	12 to 15 m
	Ulmus carpiniifolia	25 to 30 m	12 to 15 m
	Ulmus glabra	30 to 40 m	15 to 20 m
	Ulmus laevis	15 to 25 m	12 to 15 m

2. Medium-size trees 12/15 - 20 m	Genus/species/variety	Height	Width
	Acer campestre	3 to 20 m	5 to 12 m
	Acer campestre 'Elsrijk'	8 to 12 m	4 to 6 m
	Acer cappadocicum	10 to 20 m	8 to 10 m
	Acer freemanii 'Armstrong'	10 to 15 m	2 to 4 m
	Acer freemanii 'Autumn Blaze'	15 to 20 m	10 to 12 m
	Acer negundo varieties	10 to 20 m	5 to 10 m
	Acer platanoides varieties	10 to 15 m	6 to 12 m
	Acer rubrum	7 to 12 m	4 to 7 m
	Acer saccharinum 'Pyramidale'	15 to 20 m	6 to 8 m
	Acer saccharinum 'Wieri'	12 to 20 m	8 to 15 m
	Aesculus flava 'Vestita'	15 to 20 m	8 to 15 m
	Aesculus hippocastanum 'Baumannii'	18 to 20 m	8 to 12 m
	Aesculus hippocastanum 'Pyramidalis'	12 to 15 m	6 to 8 m
	Alnus cordata	8 to 15 m	3 to 6 m
	Alnus incana	8 to 20 m	3 to 10 m
	Alnus spaethii	12 to 15 m	6 to 10 m
	Betula ermanii	15 to 20 m	6 to 10 m
	Betula maximowicziana	15 to 20 m	8 to 12 m
	Betula nigra	15 to 20 m	6 to 12 m
	Betula pendula	8 to 30 m	6 to 8 m
	Betula pendula 'Tristis'	8 to 30 m	6 to 8 m
	Betula pubescens	5 to 15 m	3 to 5 m
	Betula jacquemontii	10 to 15 m	6 to 10 m
	Carpinus betulus	5 to 15 m	4 to 8 m
	Carpinus betulus 'Fastigiata'	10 to 15 m	5 to 8 m
	Cercidiphyllum japonicum	8 to 15 m	4 to 10 m
	Corylus colurna	12 to 20 m	6 to 8 m
	Davidia involucrata vilmoriniana	6 to 15 m	4 to 8 m
	Euodia hupehensis	6 to 12 m	6 to 12 m
	Fagus sylvatica 'Asplenifolia'	15 to 20 m	8 to 12 m
	Fagus sylvatica 'Pendula'	15 to 20 m	10 to 20 m
	Fagus sylvatica 'Purpurea Pendula'	8 to 10 m	4 to 6 m
	Fraxinus americana 'Autumn Purple'	12 to 15 m	10 to 12 m
	Fraxinus americana 'Skyline'	10 to 15 m	6 to 10 m
	Fraxinus americana microcarpa	12 to 15 m	8 to 10 m
	Fraxinus angustifolia 'Raywood'	15 to 20 m	7 to 10 m





1 Groups according to size and growth rates

Deciduous plants

2. Medium-size trees 12/15 - 20 m

Genus/species/variety	Height	Width
Fraxinus excelsior 'Diversifolia'.....	20 m.....	8 to 10 m
Fraxinus excelsior 'Geesink'.....	15 to 20 m.....	10 to 15 m
Fraxinus pennsylvanica 'Cimmzam'.....	15 to 20 m.....	8 to 10 m
Fraxinus pennsylvanica 'Patmore'.....	15 to 20 m.....	10 to 12 m
Fraxinus pennsylvanica 'Summit'.....	15 to 18 m.....	2 to 3 m
Gleditsia triacanthos 'Skyline'.....	12 to 15 m.....	5 to 8 m
Gymnocladus dioicus.....	15 to 20 m.....	8 to 15 m
Juglans regia.....	10 to 20 m.....	8 to 15 m
Liquidambar styraciflua.....	12 to 20 m.....	4 to 8 m
Liriodendron tulipifera 'Fastigiatum'.....	15 to 20 m.....	5 to 7 m
Nyssa sylvatica.....	15 to 20 m.....	8 to 12 m
Ostrya carpinifolia.....	10 to 15 m.....	8 to 12 m
Paulownia tomentosa.....	8 to 15 m.....	8 to 15 m
Phellodendron amurense.....	10 to 12 m.....	10 to 15 m
Populus lasiocarpa.....	10 to 15 m.....	6 to 10 m
Populus simonii.....	12 to 18 m.....	6 to 10 m
Populus tremula.....	10 to 30 m.....	6 to 10 m
Populus tremula 'Erecta'.....	10 to 18 m.....	1 to 2 m
Prunus avium.....	15 to 20 m.....	8 to 12 m
Pterocarya fraxinifolia.....	15 to 25 m.....	8 to 25 m
Pyrus calleryana 'Bradford'.....	8 to 15 m.....	6 to 9 m
Pyrus calleryana 'Chanticleer'.....	7 to 12 m.....	4 to 5 m
Pyrus communis.....	5 to 15 m.....	5 to 10 m
Quercus coccinea.....	15 to 25 m.....	8 to 15 m
Quercus macranthera.....	10 to 20 m.....	6 to 10 m
Quercus palustris.....	15 to 25 m.....	10 to 15 m
Quercus palustris 'Green Pillar'.....	15 to 20 m.....	3 to 4 m
Quercus robur 'Fastigiata'.....	15 to 20 m.....	2 to 5 m
Robinia 'Casque Rouge'.....	5 to 7 m.....	5 to 6 m
Robinia pseudoacacia varieties.....	15 to 20 m.....	7 to 12 m
Salix alba.....	10 to 20 m.....	8 to 15 m
Salix alba 'Tristis'.....	15 to 20 m.....	15 to 20 m
Salix fragilis.....	5 to 15 m.....	6 to 8 m
Sophora japonica.....	15 to 20 m.....	12 to 15 m
Sophora japonica 'Regent'.....	10 to 15 m.....	10 to 12 m
Sorbus aucuparia.....	5 to 15 m.....	4 to 8 m
Sorbus aucuparia 'Edulis'.....	12 to 15 m.....	5 to 7 m
Sorbus domestica.....	10 to 15 m.....	8 to 10 m
Sorbus intermedia 'Brouwers'.....	8 to 10 m.....	4 to 6 m
Sorbus torminalis.....	8 to 15 m.....	6 to 8 m
Sorbus vulgaris.....	10 to 18 m.....	4 to 6 m
Tilia americana 'Nova'.....	17 to 20 m.....	12 to 20 m
Tilia cordata 'Erecta'.....	15 to 20 m.....	5 to 10 m
Tilia cordata 'Greenspire'.....	15 m.....	6 to 12 m
Tilia euchlora.....	15 to 18 m.....	7 to 10 m
Tilia flavescens 'Glenleven'.....	15 to 20 m.....	8 to 12 m
Ulmus 'Columella'.....	15 to 20 m.....	4 to 6 m
Ulmus hollandica 'Lobel'.....	12 to 15 m.....	6 to 8 m
Zelkova serrata.....	15 to 20 m.....	8 to 12 m
Zelkova serrata 'Green Vase'.....	15 to 20 m.....	10 to 12 m

3. Small trees (7 - 12/15 m)

Genus/species/variety	Height	Width
Acer buergerianum.....	8 to 15 m.....	4 to 5 m
Acer campestre 'Elsrijk'.....	8 to 12 m.....	4 to 6 m
Acer campestre 'Huibers Elegant'.....	12 m.....	4 to 6 m
Acer campestre 'Queen Elizabeth'.....	10 to 12 m.....	6 to 8 m
Acer cappadocicum 'Aureum'.....	10 to 15 m.....	8 to 10 m
Acer cappadocicum 'Rubrum'.....	10 to 15 m.....	5 to 8 m
Acer freemanii 'Armstrong'.....	10 to 15 m.....	2 to 4 m
Acer freemanii 'Celzam'.....	12 to 15 m.....	10 to 12 m



Groups according to size and growth rates 1

Deciduous plants

3. Small trees (7 - 12/15 m)

Genus/species/variety	Height	Width
Acer ginnala.....	5 to 8 m.....	4 to 10 m
Acer griseum.....	5 to 8 m.....	4 to 5 m
Acer japonicum 'Aconitifolium'.....	3 to 4 m.....	2 to 4 m
Acer monspessulanum.....	6 to 10 m.....	4 to 10 m
Acer neglectum 'Annae'.....	8 to 12 m.....	6 to 10 m
Acer palmatum varieties.....	4 to 6 m.....	2 to 5 m
Acer pensylvanicum.....	5 to 7 m.....	3 to 8 m
Acer platanoides 'Globosum'.....	4 to 6 m.....	3 to 5 m
Acer rubrum.....	7 to 12 m.....	4 to 7 m
Acer rufinerve.....	4 to 7 m.....	2 to 4 m
Acer tataricum.....	5 to 10 m.....	5 to 7 m
Aesculus carnea 'Briotii'.....	8 to 15 m.....	6 to 10 m
Aesculus hippocastanum 'Umbraculifera'.....	4 to 5 m.....	3 to 5 m
Alnus cordata.....	8 to 15 m.....	3 to 6 m
Alnus incana 'Aurea'.....	8 to 10 m.....	4 to 7 m
Amelanchier 'Ballerina'.....	5 to 8 m.....	3 to 5 m
Amelanchier laevis.....	3 to 8 m.....	3 to 5 m
Amelanchier lamarckii.....	5 to 8 m.....	3 to 5 m
Aralia elata.....	3 to 7 m.....	3 to 4 m
Betula albosinensis.....	6 to 10 m.....	4 to 6 m
Betula pendula 'Youngii'.....	5 to 7 m.....	3 to 4 m
Betula pubescens.....	5 to 15 m.....	3 to 5 m
Buxus sempervirens.....	1 to 6 m.....	2 to 3 m
Catalpa bignonioides.....	8 to 12 m.....	4 to 8 m
Catalpa bignonioides 'Aurea'.....	6 to 8 m.....	5 to 8 m
Catalpa bignonioides 'Nana'.....	4 to 6 m.....	2 to 4 m
Cercidiphyllum japonicum.....	8 to 15 m.....	4 to 10 m
Cercis siliquastrum.....	4 to 6 m.....	4 to 6 m
Cornus nuttallii 'Eddie's White Wonder'.....	4 to 5 m.....	3 to 5 m
Cornus alternifolia.....	4 to 8 m.....	4 to 6 m
Cornus controversa.....	6 to 10 m.....	4 to 6 m
Cornus florida.....	5 to 10 m.....	3 to 5 m
Cornus florida rubra.....	5 to 10 m.....	3 to 5 m
Cornus kousa.....	4 to 7 m.....	3 to 4 m
Cornus kousa chinensis.....	5 to 8 m.....	4 to 5 m
Cornus mas.....	3 to 8 m.....	3 to 6 m
Cornus nuttallii.....	4 to 6 m.....	2 to 5 m
Crataegus coccinea.....	5 to 9 m.....	4 to 6 m
Crataegus laevigata 'Paul's Scarlet'.....	3 to 10 m.....	3 to 5 m
Crataegus lavalleyi 'Carrieri'.....	5 to 10 m.....	3 to 6 m
Crataegus monogyna.....	2 to 10 m.....	2 to 5 m
Crataegus monogyna 'Compacta'.....	3 to 4 m.....	1,5 to 3 m
Crataegus monogyna 'Stricta'.....	5 to 6 m.....	1 to 2 m
Crataegus prunifolia.....	5 to 7 m.....	3 to 8 m
Davidia involucrata vilmoriniana.....	6 to 15 m.....	4 to 8 m
Elaeagnus angustifolia.....	6 to 8 m.....	4 to 6 m
Euodia hupehensis.....	6 to 12 m.....	6 to 12 m
Fagus sylvatica 'Purpurea Pendula'.....	8 to 10 m.....	4 to 6 m
Fraxinus americana 'Autumn Applause'.....	10 to 12 m.....	6 to 8 m
Fraxinus excelsior 'Nana'.....	4 to 8 m.....	2 to 4 m
Fraxinus excelsior 'Pendula'.....	8 to 10 m.....	6 to 10 m
Fraxinus ornus.....	6 to 10 m.....	3 to 6 m
Fraxinus ornus 'Anita'.....	6 to 8 m.....	3 to 5 m
Halesia carolina.....	5 to 6 m.....	5 to 6 m
Hippophae rhamnoides.....	3 to 10 m.....	2 to 3 m
Ilex aquifolium.....	2 to 10 m.....	2 to 4 m
Ilex aquifolium 'Alaska'.....	2 to 3 m.....	1 to 1,5 m
Ilex aquifolium 'J.C. van Tol'.....	6 to 8 m.....	3 to 4 m
Koeleruteria paniculata.....	6 to 8 m.....	4 to 8 m
Laburnum anagyroides.....	5 to 7 m.....	3 to 4 m
Laburnum watereri 'Vossii'.....	5 to 7 m.....	3 to 4 m





1 Groups according to size and growth rates

Deciduous plants

3. Small trees (7 - 12/15 m)

Genus/species/variety	Height	Width
Liquidambar styraciflua 'Slender Silhouette'.....	10 to 15 m.....	0,5 to 0,8 m
Lonicera maackii.....	4 to 6 m.....	4 to 8 m
Magnolia kobus.....	8 to 10 m.....	4 to 6 m
Magnolia loebneri 'Leonard Messel'.....	4 to 6 m.....	3 to 4 m
Magnolia loebneri 'Merrill'.....	4 to 6 m.....	3 to 4 m
Magnolia soulangiana.....	3 to 8 m.....	3 to 5 m
Malus varieties.....	6 to 8 m.....	4 to 6 m
Malus floribunda.....	5 to 8 m.....	4 to 8 m
Malus sylvestris.....	5 to 10 m.....	4 to 6 m
Malus toringo sargentii, seedling.....	6 to 8 m.....	6 to 10 m
Malus toringo sargentii, grafted.....	7 to 10 m.....	4 to 6 m
Malus tschonoskii.....	8 to 15 m.....	2 to 6 m
Morus alba.....	10 to 15 m.....	4 to 6 m
Morus alba 'Fruitless'.....	8 to 10 m.....	4 to 8 m
Morus alba 'Macrophylla'.....	10 to 15 m.....	6 to 7 m
Morus nigra.....	6 to 10 m.....	6 to 10 m
Nothofagus antarctica.....	4 to 8 m.....	3 to 4 m
Parrotia persica.....	5 to 10 m.....	5 to 7 m
Phellodendron amurense.....	10 to 12 m.....	10 to 15 m
Prunus avium 'Plena'.....	7 to 12 m.....	4 to 6 m
Prunus cerasifera 'Nigra'.....	5 to 7 m.....	3 to 5 m
Prunus fruticosa 'Globosa'.....	3 to 5 m.....	2 to 3 m
Prunus gondouinii 'Schnee'.....	3 to 5 m.....	3 to 5 m
Prunus hillieri 'Spire'.....	6 to 8 m.....	1,5 to 3 m
Prunus lusitanica.....	5 to 7 m.....	3 to 6 m
Prunus maackii 'Amber Beauty'.....	5 to 12 m.....	5 to 8 m
Prunus mahaleb.....	3 to 12 m.....	6 to 8 m
Prunus padus.....	3 to 10 m.....	4 to 8 m
Prunus padus 'Watereri'.....	3 to 10 m.....	4 to 8 m
Prunus sargentii.....	5 to 12 m.....	4 to 8 m
Prunus schmittii.....	4 to 6 m.....	2 to 3 m
Prunus serotina.....	5 to 20 m.....	5 to 10 m
Prunus serrulata.....	4 to 10 m.....	2 to 6 m
Prunus serrula.....	5 to 7 m.....	5 to 7 m
Prunus serrulata varieties.....	4 to 7 m.....	3 to 5 m
Prunus subhirtella varieties.....	3 to 6 m.....	3 to 5 m
Prunus triloba.....	1 to 3 m.....	1 to 2 m
Prunus yedoensis.....	5 to 12 m.....	5 to 7 m
Pyrus calleryana varieties.....	8 to 15 m.....	4 to 9 m
Pyrus communis.....	5 to 15 m.....	5 to 10 m
Pyrus communis 'Beech Hill'.....	8 to 10 m.....	3 to 5 m
Pyrus nivalis.....	6 to 10 m.....	5 to 7 m
Pyrus regellii.....	5 to 9 m.....	3 to 4 m
Pyrus salicifolia.....	4 to 7 m.....	3 to 4 m
Pyrus salicifolia 'Pendula'.....	5 to 8 m.....	5 to 6 m
Quercus palustris 'Green Dwarf'.....	5 to 8 m.....	2 to 3 m
Quercus pontica.....	4 to 6 m.....	2 to 4 m
Quercus turneri 'Pseudoturneri'.....	5 to 10 m.....	5 to 8 m
Rhamnus catharticus.....	2 to 8 m.....	2 to 4 m
Rhus glabra.....	3 to 6 m.....	3 to 6 m
Rhus typhina.....	3 to 10 m.....	3 to 5 m
Robinia 'Casque Rouge'.....	5 to 7 m.....	5 to 6 m
Robinia pseudoacacia 'Frisia'.....	6 to 10 m.....	5 to 8 m
Robinia pseudoacacia 'Umbraculifera'.....	4 to 6 m.....	4 to 6 m
Salix acutifolia 'Pendulifolia'.....	4 to 6 m.....	4 to 6 m
Salix alba 'Chermesina'.....	9 to 15 m.....	9 to 15 m
Salix caprea.....	3 to 13 m.....	3 to 5 m
Salix caprea 'Mas'.....	3 to 8 m.....	3 to 5 m
Salix caprea 'Pendula'.....	1,5 to 3 m.....	1 to 2 m
Salix daphnoides 'Praecox'.....	5 to 8 m.....	3 to 5 m
Salix elaeagnos.....	2 to 6 m.....	3 to 6 m



Groups according to size and growth rates 1

Deciduous plants

3. Small trees (7 - 12/15 m)

Genus/species/variety	Height	Width
Salix fragilis.....	5 to 15 m.....	6 to 8 m
Salix matsudana 'Tortuosa'.....	4 to 12 m.....	4 to 6 m
Salix smithiana.....	4 to 6 m.....	4 to 6 m
Salix viminalis.....	2 to 10 m.....	4 to 8 m
Sophora japonica 'Pendula'.....	5 to 8 m.....	5 to 8 m
Sorbus 'Joseph Rock'.....	6 to 8 m.....	3 to 4 m
Sorbus americana.....	5 to 10 m.....	4 to 6 m
Sorbus aria varieties.....	6 to 12 m.....	4 to 8 m
Sorbus aucuparia.....	5 to 15 m.....	4 to 8 m
Sorbus aucuparia 'Fastigiata'.....	5 to 7 m.....	2 to 4 m
Sorbus aucuparia 'Sheerwater Seedling'.....	6 to 10 m.....	4 m
Sorbus decora.....	6 to 10 m.....	4 to 6 m
Sorbus domestica.....	10 to 15 m.....	8 to 10 m
Sorbus hybrida 'Gibbsii'.....	5 to 7 m.....	3 to 4 m
Sorbus intermedia 'Brouwers'.....	8 to 10 m.....	4 to 6 m
Sorbus serotina.....	5 to 10 m.....	5 to 8 m
Sorbus thuringiaca 'Fastigiata'.....	5 to 8 m.....	3 to 4 m
Sorbus torminalis.....	8 to 15 m.....	6 to 8 m
Sorbus vilmorinii.....	3 to 6 m.....	3 to 5 m
Stewartia pseudocamellia.....	4 to 6 m.....	4 to 6 m
Styrax obassia.....	5 to 10 m.....	4 to 7 m
Tilia cordata 'Rancho'.....	9 to 12 m.....	4 to 6 m
Tilia cordata 'Roelvo'.....	10 to 15 m.....	3 to 6 m
Tilia mongolica.....	6 to 15 m.....	5 to 7 m
Tilia platyphyllos 'Laciniata'.....	10 to 15 m.....	8 to 10 m
Tilia platyphyllos 'Örebro'.....	10 to 18 m.....	4 to 5 m
Tilia platyphyllos 'Prince's Street'.....	10 to 12 m.....	4 to 5 m
Ulmus carpinifolia 'Wredei'.....	8 to 10 m.....	3 to 4 m
Ulmus 'Sapporo Autumn Gold'.....	12 to 15 m.....	5 to 7 m
Zelkova serrata 'Village Green'.....	10 to 12 m.....	5 to 6 m

4. Large shrubs (3 - 5/7 m)

Genus/species/variety	Height	Width
Acer campestre 'Nanum'.....	4 to 7 m.....	2 to 3 m
Acer ginnala.....	5 to 8 m.....	4 to 10 m
Acer griseum.....	5 to 8 m.....	4 to 5 m
Acer japonicum 'Aconitifolium'.....	3 to 4 m.....	2 to 4 m
Acer palmatum.....	4 to 6 m.....	2 to 5 m
Acer palmatum 'Atropurpureum'.....	3 to 4 m.....	2 to 3 m
Acer palmatum 'Osakazuki'.....	3 to 5 m.....	3 to 5 m
Acer pensylvanicum.....	5 to 7 m.....	3 to 8 m
Acer rufinerve.....	4 to 7 m.....	2 to 4 m
Acer shirasawanum 'Aureum'.....	3 to 4 m.....	3 to 4 m
Aesculus parviflora.....	3 to 6 m.....	2 to 6 m
Amelanchier 'Ballerina'.....	5 to 8 m.....	3 to 5 m
Amelanchier laevis.....	3 to 8 m.....	3 to 5 m
Amelanchier lamarkii.....	5 to 8 m.....	3 to 5 m
Aralia elata.....	3 to 7 m.....	3 to 4 m
Aralia elata 'Variegata'.....	3 to 4 m.....	2 to 3 m
Berberis julianae.....	2 to 4 m.....	2 to 3 m
Berberis ottawensis 'Superba'.....	3 to 4 m.....	2 to 4 m
Buxus sempervirens.....	1 to 6 m.....	2 to 3 m
Caragana arborescens.....	3 to 5 m.....	2 to 3 m
Cercis siliquastrum.....	4 to 6 m.....	4 to 6 m
Chionanthus virginicus.....	3 to 5 m.....	3 to 5 m
Clerodendron trichotomum fargesii.....	2 to 3 m.....	2 to 4 m
Cornus alternifolia.....	4 to 8 m.....	4 to 6 m
Cornus controversa.....	6 to 10 m.....	4 to 6 m
Cornus florida.....	5 to 10 m.....	3 to 5 m
Cornus florida rubra.....	5 to 10 m.....	3 to 5 m
Cornus kousa.....	4 to 7 m.....	3 to 4 m





1 Groups according to size and growth rates

Deciduous plants

4. Large shrubs (3 - 5/7 m)

Genus/species/variety	Height	Width
Cornus kousa chinensis	.5 to 8 m	.4 to 5 m
Cornus mas	.3 to 8 m	.3 to 6 m
Cornus nuttallii	.4 to 6 m	.2 to 5 m
Cornus officinalis	.4 to 10 m	.4 to 8 m
Cornus sanguinea	.1 to 8 m	.2 to 4 m
Corylus species and varieties	.2 to 6 m	.2 to 6 m
Cotinus coggygria	.3 to 5 m	.3 to 5 m
Cotoneaster bullatus	.3 to 5 m	.2 to 3 m
Cotoneaster salicifolius floccosus	.3 to 4 m	.2 to 3 m
Cotoneaster watereri	.3 to 4 m	.3 to 4 m
Cotoneaster watereri 'Cornubia'	.3 to 7 m	.3 to 4 m
Crataegus coccinea	.5 to 9 m	.4 to 6 m
Crataegus laevigata	.2 to 5 m	.3 to 6 m
Crataegus laevigata 'Paul's Scarlet'	.3 to 10 m	.3 to 5 m
Crataegus lavalleyi 'Carrieri'	.5 to 10 m	.3 to 6 m
Crataegus monogyna	.2 to 10 m	.2 to 5 m
Deutzia magnifica	.3 to 4 m	.1 to 2 m
Deutzia scabra 'Plena'	.3 to 4 m	.2 to 3 m
Elaeagnus angustifolia	.6 to 8 m	.4 to 6 m
Elaeagnus commutata	.3 to 4 m	.3 to 4 m
Euonymus europaeus	.2 to 6 m	.2 to 4 m
Euonymus europaeus 'Red Cascade'	.2 to 6 m	.2 to 4 m
Euonymus planipes	.4 to 5 m	.4 to 5 m
Forsythia 'Spectabilis'	.3 to 4 m	.3 to 4 m
Halesia carolina	.5 to 6 m	.5 to 6 m
Hamamelis intermedia varieties	.3 to 5 m	.3 to 4 m
Hamamelis japonica	.3 to 5 m	.3 to 4 m
Hamamelis mollis	.3 to 4 m	.3 to 4 m
Hamamelis virginiana	.5 to 6 m	.3 to 5 m
Hippophae rhamnoides	.3 to 10 m	.2 to 3 m
Ilex altacelerensis 'Golden King'	.3 to 4 m	.3 to 4 m
Ilex species and varieties	.2 to 10 m	.2 to 4 m
Ilex 'Nellie R. Stevens'	.3 to 8 m	.2 to 4 m
Laburnum watereri 'Vossii'	.5 to 7 m	.3 to 4 m
Ligustrum ovalifolium	.3 to 5 m	.2 to 3 m
Ligustrum ovalifolium 'Aureum'	.3 to 4 m	.1,8 to 2 m
Ligustrum vulgare	.2 to 5 m	.2 to 4 m
Ligustrum vulgare 'Atrovirens'	.3 to 4 m	.2 to 4 m
Liquidambar styraciflua 'Gum Ball'	.3 to 8 m	.2 to 4 m
Lonicera ledebourii	.3 to 4 m	.2 to 3 m
Lonicera maackii	.4 to 6 m	.4 to 8 m
Magnolia species and varieties	.2 to 6 m	.3 to 4 m
Magnolia loebneri 'Leonard Messel'	.4 to 6 m	.3 to 4 m
Magnolia loebneri 'Merrill'	.4 to 6 m	.3 to 4 m
Magnolia sieboldii	.3 to 5 m	.3 to 4 m
Magnolia soulangiana	.3 to 8 m	.3 to 5 m
Magnolia stellata	.2 to 4 m	.2 to 3 m
Magnolia stellata 'Royal Star'	.2 to 4 m	.2 to 3 m
Malus sylvestris	.5 to 10 m	.4 to 6 m
Malus toringo sargentii, grafted	.2 to 4 m	.2 to 4 m
Malus toringo sargentii, seedling	.7 to 10 m	.4 to 6 m
Mespilus germanica	.3 to 5 m	.3 to 5 m
Nothofagus antarctica	.4 to 8 m	.3 to 4 m
Parrotia persica	.5 to 10 m	.5 to 7 m
Philadelphus inodorus grandiflorus varieties	.3 to 5 m	.2 to 3 m
Photinia villosa	.3 to 5 m	.2 to 3 m
Phyllostachys species and varieties	.3 to 7 m	.3 to 7 m
Platanus acerifolia 'Alphen's Globe'	.4,5 to 6,5 m	.3 to 4 m
Prunus 'Accolade'	.5 to 8 m	.3 to 5 m
Prunus cerasifera	.5 to 7 m	.3 to 5 m
Prunus cerasifera 'Nigra'	.5 to 7 m	.3 to 5 m



Groups according to size and growth rates 1

Deciduous plants

4. Large shrubs (3 - 5/7 m)

Genus/species/variety	Height	Width
Prunus laurocerasus varieties	.2 to 4 m	.2 to 6 m
Prunus lusitanica	.4,5 to 7 m	.3 to 5 m
Prunus mahaleb	.3 to 12 m	.6 to 8 m
Prunus padus	.3 to 10 m	.4 to 8 m
Prunus padus 'Watereri'	.3 to 10 m	.4 to 8 m
Prunus sargentii	.5 to 12 m	.4 to 8 m
Prunus schmittii	.4 to 6 m	.2 to 3 m
Prunus serotina	.5 to 20 m	.5 to 10 m
Prunus serrulata	.4 to 10 m	.2 to 6 m
Prunus serrula	.5 to 7 m	.5 to 7 m
Prunus serrulata varieties	.4 to 7 m	.3 to 5 m
Prunus subhirtella varieties	.3 to 6 m	.3 to 5 m
Prunus yedoensis	.5 to 12 m	.5 to 7 m
Ptelea trifoliata	.4 to 6 m	.4 to 6 m
Quercus pontica	.4 to 6 m	.2 to 4 m
Quercus turneri 'Pseudoturneri'	.5 to 10 m	.5 to 8 m
Rhamnus catharticus	.2 to 8 m	.2 to 4 m
Rhamnus frangula	.2 to 7 m	.2 to 4 m
Rhododendron varieties	.4 to 6 m	.3 to 5 m
Rhus glabra	.3 to 6 m	.3 to 6 m
Rhus typhina	.3 to 10 m	.3 to 5 m
Robinia hispida 'Macrophylla'	.1,5 to 3 m	.1 to 2 m
Rosa moyesii	.3 to 5 m	.3 to 4 m
Salix acutifolia 'Pendulifolia'	.4 to 6 m	.4 to 6 m
Salix caprea	.3 to 13 m	.3 to 5 m
Salix caprea 'Mas'	.3 to 8 m	.3 to 5 m
Salix cinerea	.3 to 6 m	.3 to 5 m
Salix daphnoides 'Praecox'	.5 to 8 m	.3 to 5 m
Salix daphnoides pomeranica	.3 to 6 m	.2 to 4 m
Salix elaeagnos	.2 to 6 m	.3 to 6 m
Salix fragilis	.5 to 15 m	.6 to 8 m
Salix matsudana 'Tortuosa'	.4 to 12 m	.4 to 6 m
Salix purpurea	.2 to 10 m	.2 to 6 m
Salix sachalinensis 'Sekka'	.2 to 3 m	.2 to 3 m
Salix smithiana	.4 to 6 m	.4 to 6 m
Salix triandra	.2 to 4 m	.3 to 8 m
Salix viminalis	.2 to 10 m	.4 to 8 m
Sambucus canadensis 'Aurea'	.3 to 5 m	.2 to 4 m
Sambucus canadensis 'Maxima'	.3 to 5 m	.2 to 4 m
Sambucus nigra	.2 to 7 m	.3 to 5 m
Sambucus racemosa	.2 to 4 m	.2 to 4 m
Sorbus aria varieties	.6 to 12 m	.4 to 8 m
Sorbus decora	.6 to 10 m	.4 to 6 m
Sorbus koehneana	.2 to 4 m	.2 to 4 m
Sorbus vilmorinii	.3 to 6 m	.3 to 5 m
Staphylea colchica	.3 to 5 m	.2 to 4 m
Stewartia pseudocamellia	.4 to 6 m	.4 to 6 m
Stranvaesia davidiana	.2 to 5 m	.2 to 4 m
Styrax japonicus	.3 to 8 m	.5 to 8 m
Syringa chinensis	.3 to 4 m	.3 to 4 m
Syringa josikaea	.3 to 5 m	.3 to 4 m
Syringa prestoniae 'Elinor'	.3 to 4 m	.3 to 4 m
Syringa reflexa	.3 to 4 m	.3 to 5 m
Syringa swegiflexa	.3 to 4 m	.3 to 4 m
Syringa vulgaris varieties	.3 to 5 m	.3 to 5 m
Tamarix parviflora	.3 to 5 m	.2 to 3 m
Tilia cordata 'Green Globe'	.6 to 8 m	.4 m
Tilia cordata 'Winter Orange'	.8 m	.4 m
Ulmus glabra 'Pendula'	.3 to 5 m	.6 to 10 m
Viburnum lantana	.2 to 5 m	.2 to 4 m
Viburnum opulus	.2 to 5 m	.2 to 5 m
Viburnum rhytidophyllum	.3 to 7 m	.3 to 4 m





1 Groups according to size and growth rates

Deciduous plants

5. Normal shrubs / medium shrubs (1,5 - 3m)	Genus/species/variety	Height	Width
	Acer palmatum varieties	1 to 3 m	1 to 3 m
	Amelanchier ovalis	1 to 3 m	2 to 3 m
	Aronia melanocarpa 'Viking'	1 to 2 m	1,5 to 2 m
	Aucuba japonica	2 to 2,5 m	1,5 to 2 m
	Berberis species and varieties	1,5 to 3 m	1 to 4 m
	Buddleja varieties	2 to 3 m	2 to 3 m
	Buxus sempervirens 'Bullata'	2 to 3 m	2 to 3 m
	Callicarpa bodinieri giraldii 'Profusion'	2 to 3 m	1,5 to 2 m
	Calycanthus floridus	2 to 3 m	1,5 to 2 m
	Chaenomeles species and varieties	1 to 3 m	1 to 3 m
	Clethra alnifolia	1,5 to 3 m	1 to 2 m
	Colutea arborescens	1 to 3 m	1 to 3 m
	Cornus species and varieties	2 to 3 m	3 to 5 m
	Corylus avellana 'Contorta'	2 to 4 m	2 to 4 m
	Corylopsis spicata	1,5 to 3 m	2 to 3 m
	Cotinus coggygria 'Royal Purple'	2 to 4 m	2 to 3 m
	Cotoneaster acutifolius	1,5 to 3 m	1,5 to 2 m
	Cotoneaster dielsianus	1,5 to 2 m	1,5 to 2 m
	Cotoneaster divaricatus	1,5 to 3 m	1,5 to 2 m
	Cotoneaster franchetii	2 to 3 m	2 to 3 m
	Cotoneaster multiflorus	2 to 4 m	2 to 3 m
	Cotoneaster watereri 'Pendulus'	2 to 3 m	1 to 2 m
	Cytisus praecox varieties	1 to 2 m	1 to 2 m
	Cytisus scoparius varieties	0,5 to 5 m	1 to 2 m
	Decaisnea fargesii	2 to 5 m	1,5 to 2 m
	Deutzia species and varieties	1,1 to 3 m	1 to 1,5 m
	Elaeagnus multiflora	2 to 3 m	2 to 3 m
	Elaeagnus pungens 'Maculata'	1 to 2 m	1 to 2 m
	Enkianthus campanulatus	2,5 to 4 m	1,5 to 3 m
	Euonymus alatus	2 to 3 m	2 to 3 m
	Euonymus yedoensis	2 to 3 m	2 to 4 m
	Euonymus phellomanus	1 to 3 m	1 to 3 m
	Exochorda macrantha 'The Bride'	1 to 1,8 m	1 to 1,5 m
	Fargesia murielae	2 to 3 m	2 to 3 m
	Forsythia 'Lynwood'	2,5 to 3 m	2 to 3 m
	Forsythia suspensa fortunei	2 to 3 m	2 to 3 m
	Fothergilla major	1,5 to 2,5 m	1 to 3 m
	Hamamelis intermedia varieties	2 to 5 m	2 to 4 m
	Hedera helix 'Arborescens'	1,5 to 2 m	1,5 to 2 m
	Heptacodium miconioides	2 to 4 m	2 to 3 m
	Hibiscus species and varieties	1,5 to 3 m	1 to 1,5 m
	Holodiscus discolor arifolius	2 to 3 m	2 to 3 m
	Hydrangea aspera 'Macrophylla'	1 to 2 m	1 to 2 m
	Hydrangea paniculata 'Grandiflora'	2 to 3 m	2 to 3 m
	Hydrangea sargentiana	1,5 to 2 m	1,5 to 2 m
	Ilex aquifolium 'Alaska'	2 to 3 m	1 to 1,5 m
	Ilex crenata	2 to 4 m	1 to 2 m
	Ilex meserveae varieties	2 to 4 m	1,5 to 2 m
	Ilex verticillata	2 to 3 m	2 to 3 m
	Kalmia latifolia	2 to 3 m	1 to 3 m
	Kerria japonica 'Pleniflora'	1,5 to 2 m	1,5 to 2,5 m
	Kolkwitzia amabilis	2 to 3 m	2 to 3 m
	Ligustrum obtusifolium regelianum	1 to 2 m	1,5 to 3 m
	Lonicera korolkowii zabelii	1,5 to 3 m	1,5 to 2 m
	Lonicera ledebourii	3 to 4 m	2 to 3 m
	Lonicera tatarica	2 to 4 m	2 to 3 m
	Lonicera xylosteum	1 to 3 m	1,5 to 3 m
	Lonicera xylosteoides 'Clavey's Dwarf'	1 to 3 m	1 to 2 m
	Lycium barbarum	2 to 3 m	2 to 3 m
	Magnolia liliiflora	2 to 4 m	2 to 3 m
	Magnolia stellata	2 to 4 m	2 to 3 m



Groups according to size and growth rates 1

Deciduous plants

5. Normal shrubs / medium shrubs (1,5 - 3m)	Genus/species/variety	Height	Width
	Magnolia stellata 'Royal Star'	2 to 4 m	2 to 3 m
	Mahonia bealei	1,5 to 3 m	1 to 2 m
	Malus toringo sargentii, grafted	2 to 4 m	2 to 4 m
	Osmanthus heterophyllus	2 to 3 m	2 to 3 m
	Philadelphus 'Schneesturm'	2 to 2,5 m	1 to 2 m
	Philadelphus 'Virginal'	3 to 4 m	1 to 2 m
	Philadelphus coronarius	2 to 4 m	2 to 3 m
	Phyllostachys aurea	3 to 7 m	3 to 7 m
	Phyllostachys humilis	3 to 7 m	3 to 7 m
	Physocarpus opulifolius	2,5 to 4 m	3 to 4 m
	Pieris japonica	1,5 to 4 m	2 to 3 m
	Pieris japonica 'White Cascade'	1,5 to 2,5 m	1,2 to 2 m
	Prunus kurilensis 'Brilliant'	1,5 to 2,5 m	1,5 to 2 m
	Prunus laurocerasus in varieties	2 to 4 m	2 to 5 m
	Prunus lusitanica 'Angustifolia'	2 to 4 m	3 to 5 m
	Prunus spinosa	1 to 4 m	2 to 4 m
	Prunus triloba	1 to 3 m	1 to 2 m
	Pseudosasa japonica	1,5 to 3 m	2 to 4 m
	Pyracantha in species und varieties	1,5 to 2,5 m	1,5 to 4 m
	Rhododendron hybrids	1 to 3,5 m	1,5 to 3 m
	Rhododendron-Azalea hybrids	1,5 to 2,5 m	1,5 to 2,5 m
	Rhododendron albrechtii	1 to 3 m	1,5 to 2 m
	Rhus typhina 'Dissecta'	2 to 4 m	2 to 4 m
	Ribes aureum	1 to 2 m	1 to 2 m
	Ribes divaricatum	2 to 3 m	2 to 3 m
	Ribes sanguineum in varieties	1,5 to 2 m	1,5 to 2 m
	Shrub Roses	1 to 3 m	1 to 2 m
	Bedding Roses	0,4 to 1 m	1 to 1,5 m
	Climbing Roses	2 to 6 m	0,3 to 3 m
	Ground Cover Roses	0,4 to 0,8 m	1 to 1,5 m
	Tree Roses	1 to 1,5 m	1 to 1,5 m
	Rosa arvensis	0,5 to 2 m	1 to 2 m
	Rosa canina	1 to 3 m	2 to 3 m
	Rosa glauca	1 to 3 m	2 to 3 m
	Rosa hugonis	1,5 to 2 m	2 to 2,5 m
	Rosa moyesii	3 to 5 m	3 to 4 m
	Rosa multiflora	1,5 to 3 m	2 to 3 m
	Rosa multibracteata	1,7 to 2,5 m	1,5 to 2 m
	Rosa omeiensis pteracantha	1,5 to 2 m	1,5 to 2 m
	Rosa repens alba	0,4 to 0,6 m	1 to 2 m
	Rosa rubiginosa	2 to 3 m	2 to 3 m
	Rosa rugosa	1 to 2 m	1 to 2 m
	Rosa rugosa alba	1 to 2 m	1 to 2 m
	Rosa rugotida	0,7 to 1 m	1 to 1,5 m
	Rubus fruticosus	1 to 3 m	1 to 3 m
	Rubus odoratus	1,5 to 2,5 m	1,5 to 2 m
	Salix aurita	0,5 to 3 m	0,5 to 2 m
	Salix balsamifera mas	1 to 2 m	1,5 to 2 m
	Salix caprea 'Pendula'	1,5 to 3 m	1 to 2 m
	Salix sachalinensis 'Sekka'	2 to 3 m	2 to 3 m
	Sorbaria sorbifolia	1 to 3 m	2 to 4 m
	Spiraea arguta	1,5 to 2 m	1 to 2 m
	Spiraea cinerea 'Grefsheim'	1,5 to 2 m	1 to 2 m
	Spiraea nipponica	1,5 to 3 m	2 to 3 m
	Spiraea vanhouttei	1,5 to 2,5 m	2 to 3 m
	Stranvaesia davidiana	2 to 5 m	2 to 4 m
	Symphoricarpos albus laevigatus	1,5 to 2 m	2 to 3 m
	Symphoricarpos chenaultii	1,5 to 2 m	2 to 2,5 m
	Syringa vulgaris in varieties	4 to 5 m	2 to 5 m
	Tamarix ramosissima	2 to 3 m	2 to 3 m
	Ulex europaeus	0,5 to 2 m	1 to 2 m





1 Groups according to size and growth rates

Deciduous plants

5. Normal shrubs / medium shrubs (1,5 - 3m)	Genus/species/variety	Height	Width
	Vaccinium corymbosum	1 to 2 m	1 to 2 m
	Viburnum species and varieties	1 to 4 m	2 to 3 m
	Weigela varieties	1,5 to 3 m	2 to 3 m
	Weigela florida	2 to 3 m	2 to 3 m

6. Small shrubs (0,5 - 1,5 m)	Genus/species/variety	Height	Width
	Acanthopanax sieboldianus	1 to 2 m	1 to 2 m
	Acer palmatum 'Dissectum Garnet'	1 to 2m	1 to 2 m
	Aronia melanocarpa	0,5 to 2 m	1 to 2 m
	Berberis species and varieties	0,8 to 2 m	0,8 to 2 m
	Buxus sempervirens species and varieties	0,6 to 6 m	0,6 to 3 m
	Caryopteris clandonensis varieties	0,8 to 1,2 m	0,8 to 1 m
	Ceanothus delilianus varieties	1 to 2 m	1 to 1,5 m
	Ceanothus pallidus varieties	1 to 1,5 m	1 to 1,5 m
	Chaenomeles species and varieties	1 to 1,5 m	1 to 3 m
	Cornus stolonifera 'Kelsey'	0,7 to 1 m	0,8 to 1,5 m
	Corylopsis pauciflora	1,2 to 1,5 m	1,5 to 2 m
	Cotoneaster dammeri 'Coral Beauty'	0,5 to 0,8 m	0,8 to 1,2 m
	Cotoneaster dammeri 'Skogholm'	1,2 to 1,5 m	1 to 2 m
	Cotoneaster horizontalis	1,2 to 1,5 m	2 to 3 m
	Cotoneaster sternianus	1 to 2 m	1 to 2 m
	Cytisus beanii	0,4 to 0,8 m	1 to 2 m
	Cytisus nigricans 'Cyni'	0,6 to 0,8 m	0,5 to 0,6 m
	Cytisus praecox varieties	1 to 2 m	1 to 2 m
	Cytisus scoparius varieties	0,5 to 5 m	1 to 2 m
	Daphne burkwoodii 'Somerset'	0,5 to 1,2 m	1 to 2 m
	Daphne mezereum 'Rubra Select'	1,5 to 12 m	1 to 1,5 m
	Daphne mezereum alba	1 to 1,2 m	0,8 to 1 m
	Deutzia gracilis	0,5 to 0,8 m	0,8 to 1 m
	Deutzia hybrida 'Mont Rose'	1,5 to 2 m	1 to 1,5 m
	Deutzia kalmiiiflora	1,5 to 2 m	1 to 1,5 m
	Deutzia lemoinei 'Boule de Neige'	1 to 3 m	1 to 2,5 m
	Deutzia magnifica	3 to 4 m	1 to 2 m
	Deutzia rosea	1 to 1,5 m	1 to 1,5 m
	Deutzia scabra 'Candidissima'	1 to 3 m	1 to 2,5 m
	Deutzia scabra 'Plena'	3 to 4 m	2 to 3 m
	Deutzia scabra 'Pride of Rochester'	0,5 to 1,5 m	0,8 to 1,5 m
	Elaeagnus ebbingei	1 to 2 m	1 to 2 m
	Elaeagnus pungens 'Maculata'	1 to 2 m	1 to 2 m
	Escallonia 'Donard Seedling'	1 to 1,5 m	1 to 1,5 m
	Euonymus alatus 'Compactus'	1 to 1,2 m	1 to 1,2 m
	Euonymus fortunei varieties	0,1 to 0,7 m	0,3 to 2 m
	Exochorda macrantha 'The Bride'	1 to 1,8 m	1 to 1,5 m
	Fargesia murielae 'Simba'	1,5 to 1,8 m	1,5 to 1,8 m
	Forsythia ovata 'Tetragold'	1 to 1,5 m	1,2 to 1,5 m
	Fothergilla gardenii	0,75 to 1 m	1 to 1,5 m
	Genista tinctoria	0,3 to 1 m	0,3 to 0,8 m
	Hedera colchica varieties	1 to 2 m	1 to 2 m
	Hedera helix 'Arborescens'	1,5 to 2 m	1,5 to 2 m
	Hydrangea arborescens varieties	1 to 2,5 m	1 to 2 m
	Hydrangea aspera 'Macrophylla'	1 to 2 m	1 to 2 m
	Hydrangea quercifolia	1 to 2 m	1 to 2 m
	Hydrangea serrata varieties	1 to 1,5 m	1 to 1,5 m
	Hypericum 'Hidcote'	0,7 to 1,3 m	1 to 1,2 m
	Hypericum androsaemum	0,6 to 1 m	0,6 to 1 m
	Hypericum kalmianum 'Gemo'	0,6 to 1 m	0,8 to 1,2 m
	Hypericum patulum henryi	0,8 to 1,2 m	0,8 to 1 m
	Ilex crenata varieties	0,5 to 2 m	0,5 to 2 m
	Ilex meserveae varieties	2 to 4 m	1,5 to 2 m
	Kalmia angustifolia 'Rubra'	0,5 to 1 m	0,5 to 1 m



Groups according to size and growth rates 1

Deciduous plants

6. Small shrubs (0,5 - 1,5 m)	Genus/species/variety	Height	Width
	Kalmia latifolia	2 to 3 m	1 to 3 m
	Kalmia latifolia 'Ostbo Red'	0,5 to 1,2 m	0,5 to 1,2 m
	Kerria japonica	0,8 to 2 m	0,8 to 1,5 m
	Ledum palustre	0,5 to 1 m	0,5 to 1 m
	Lespedeza thunbergii	1 to 2 m	1 to 2 m
	Leucothoe walteri	0,6 to 1,5 m	0,8 to 1,2 m
	Ligustrum delavayanum	1 to 2 m	1 to 2 m
	Lonicera acuminata	0,5 to 3 m	0,8 to 1,2 m
	Lonicera caerulea	0,5 to 1,5 m	1 to 2 m
	Lonicera nitida varieties	1 to 1,5 m	1 to 1,5 m
	Lonicera pileata	0,8 to 1 m	1 to 1,2 m
	Mahonia aquifolium	0,6 to 1,2 m	0,6 to 1,2 m
	Mahonia aquifolium 'Apollo'	0,6 to 1,2 m	0,6 to 1,2 m
	Malus 'Tina'	1 to 2 m	1 to 2 m
	Myrica gale	0,5 to 1,5 m	0,5 to 1,5 m
	Paeonia suffruticosa varieties	0,6 to 1 m	0,6 to 1 m
	Perovskia abredanooides	1 to 1,5 m	1 to 1,5 m
	Philadelphus varieties	0,8 to 1,5 m	1 to 2 m
	Photinia fraseri 'Red Robin'	1,2 to 1,5 m	1,2 to 1,5 m
	Pieris floribunda	1 to 2 m	1,5 to 2 m
	Pieris japonica 'Red Mill'	1,2 to 2 m	1,2 to 1,5 m
	Pleiblastus humilis	0,7 to 1,2 m	2 to 4 m
	Potentilla varieties	0,6 to 1,2 m	0,8 to 1,5 m
	Prunus cistena	1,2 to 1,5 m	1,2 to 1,5 m
	Prunus laurocerasus 'Cherry Brandy'	0,6 to 0,8 m	2 to 3 m
	Prunus laurocerasus 'Otto Luyken'	1 to 1,5 m	2 to 3 m
	Prunus tenella	0,6 to 1,5 m	1 to 2 m
	Prunus tenella 'Fire Hill'	0,5 to 1,7 m	2 to 3 m
	Pyracantha 'Red Cushion'	0,5 to 0,8 m	0,8 to 1 m
	Rhododendron yakushimanum - hybrids	0,6 to 1,5 m	0,8 to 1,5 m
	Rhododendron - Azalea, Japanese Azaleen	0,3 to 0,5 m	0,3 to 0,8 m
	Rhododendron canadense	0,6 to 1,2 m	1 to 1,5 m
	Rhododendron ferrugineum	0,7 m	1 m
	Rhododendron impeditum varieties	0,8 to 1,2 m	0,5 to 1 m
	Rhododendron impeditum 'Gristede'	0,5 to 1 m	0,5 to 0,8 m
	Rhododendron minus	0,8 to 1,5 m	0,8 to 1,5 m
	Rhododendron russatum 'Azurwolke'	0,6 to 0,8 m	0,6 to 0,8 m
	Rhodotypos scandens	1 to 2 m	1 to 2 m
	Ribes alpinum 'Schmidt'	1 to 1,5 m	1 to 2 m
	Ribes sanguineum varieties	1,5 to 2 m	1,5 to 2 m
	Beetrosen	0,4 to 1 m	1 to 1,5 m
	Bodendeckerrosen	0,4 to 0,8 m	1 to 1,5 m
	Rosa blanda	0,2 to 0,8 m	2 to 3 m
	Rosa canina 'Kiese'	1,5 m	2 to 3 m
	Rosa carolina	0,5 to 1,2 m	1,2 to 1,5 m
	Rosa gallica	0,2 to 1 m	1 to 2 m
	Rosa nitida	0,5 to 1 m	1 to 1,5 m
	Rosa pimpinellifolia	0,5 to 1,5 m	1 to 2 m
	Rosa repens	0,4 to 0,6 m	1 to 2 m
	Rosa rugosa 'Dagmar Hastrup'	0,8 to 1 m	1 to 2 m
	Rosa rugosa 'Hansa'	1 to 2 m	1 to 1,5 m
	Rosa rugosa 'Max Graf'	1 to 2 m	1 to 2 m
	Rosa rugotida	0,7 to 1 m	1 to 1,5 m
	Rubus idaeus	0,5 to 2 m	1 to 1,5 m
	Salix hastata 'Wehrhahnii'	1 to 1,2 m	1 to 1,5 m
	Salix helvetica	0,3 to 1,2 m	0,8 to 1,2 m
	Salix lanata	0,6 to 1,2 m	0,8 to 1 m
	Salix purpurea 'Nana'	0,5 to 1,5 m	3 m
	Salix purpurea 'Pendula'	0,5 to 0,8 m	1,5 m
	Salix repens nitida	0,5 to 0,8 m	1 to 1,5 m
	Salix rosmarinifolia	1 to 1,5 m	1 to 2 m





1 Groups according to size and growth rates

Deciduous plants

6. Small shrubs (0,5 - 1,5 m)

Genus/species/variety	Height	Width
Sasa veitchii	0,3 to 0,8 m	.2 to 4 m
Skimmia japonica	.0,8 to 1 m	.1 to 1,5 m
Skimmia japonica 'Rubella'	.0,6 to 1 m	.0,6 to 1,5 m
Spiraea in species and varieties	.0,5 to 1,5 m	.0,5 to 2 m
Stephanandra incisa	.1,2 to 1,5 m	.1,2 to 1,5 m
Stephanandra incisa 'Crispa'	.0,4 to 0,8 m	.1 to 1,5 m
Stephanandra tanakae	.1,2 to 1,5 m	.1,2 to 1,5 m
Symphoricarpos chenaultii 'Hancock'	.0,8 to 1,2 m	.1 to 1,5 m
Symphoricarpos doorenbosii 'Magic Berry'	.0,8 to 1 m	.0,8 to 1 m
Symphoricarpos orbiculatus	.1 to 1,5 m	.1 to 2 m
Syringa meyeri 'Palibin'	.0,8 to 1,2 m	.0,8 to 1,2 m
Syringa microphylla 'Superba'	.1 to 1,5 m	.1 to 2 m
Vaccinium corymbosum	.1 to 2 m	.1 to 2 m
Viburnum carlesii	.1,2 to 1,5 m	.1,2 to 1,5 m
Viburnum carlesii 'Aurora'	.1 to 1,5 m	.1 to 1,5 m
Viburnum plicatum 'Watanabe'	.1 to 1,5 m	.1 to 1,5 m
Viburnum tinus	.1 to 1,5 m	.1,5 to 2 m
Viburnum tinus 'Eve Price'	.1 to 1,5 m	.1 to 1,5 m
Vinca major	.0,5 to 0,8 m	.0,5 to 0,8 m

7. Dwarf shrubs (0,1 - 0,5m)

Genus/species/variety	Height	Width
Arctostaphylos uva-ursi	.0,2 to 0,3 m	.0,6 to 1 m
Berberis buxifolia 'Nana'	.0,3 to 0,5 m	.0,3 to 0,5 m
Berberis thunbergii varieties	.0,3 to 0,6 m	.0,4 to 0,6 m
Buxus sempervirens 'Blauer Heinz'	.0,6 to 1 m	.0,6 to 1 m
Buxus sempervirens 'Handsworthiensis'	.0,6 to 1 m	.0,6 to 1 m
Buxus sempervirens arborescens	.0,6 to 1 m	.0,6 to 1 m
Buxus sempervirens 'Suffruticosa'	.0,6 to 1 m	.0,6 to 1 m
Calluna vulgaris varieties	.0,2 to 0,7 m	.0,2 to 0,5 m
Caragana arborescens 'Pendula'	.1 to 3 m	.1 to 1,5 m
Cotoneaster adpressus	.0,2 to 0,5 m	.0,5 to 0,8 m
Cotoneaster dammeri varieties	.0,2 to 0,5 m	.0,4 to 1 m
Cotoneaster microphyllus 'Cochleatus'	.0,3 to 0,5 m	.0,3 to 0,8 m
Cotoneaster microphyllus 'Streibs Findling'	.0,1 to 0,2 m	.0,2 to 0,3 m
Cotoneaster praecox	.0,4 to 0,8 m	.1 to 1,5 m
Cotoneaster salicifolius 'Herbstfeuer'	.0,2 to 0,5 m	.1 to 1,5 m
Cotoneaster salicifolius 'Parkteppich'	.0,3 to 0,5 m	.0,8 to 1 m
Cotoneaster watereri 'Pendulus'	.2 to 3 m	.1 to 2 m
Cytisus species	.0,2 to 0,8 m	.0,2 to 2 m
Daboecia species and varieties	.0,2 to 0,5 m	.0,3 to 0,4 m
Daphne cneorum	.0,1 to 0,4 m	.0,4 to 0,8 m
Empetrum nigrum	.0,1 to 0,5 m	.0,4 to 0,6 m
Erica carnea varieties	.0,1 to 0,3 m	.0,3 to 0,5 m
Erica cinerea varieties	.0,2 to 0,6 m	.0,2 to 0,6 m
Erica darleyensis varieties	.0,2 to 0,4 m	.0,2 to 0,4 m
Erica vagans varieties	.0,2 to 0,5 m	.0,4 to 0,8 m
Euonymus fortunei varieties	.0,1 to 0,7 m	.0,3 to 1,5 m
Gaultheria procumbens	.0,1 to 0,2 m	.0,2 to 0,4 m
Gaultheria shallon	.0,2 to 1 m	.0,8 to 1 m
Genista lydia	.0,3 to 0,5 m	.0,5 to 1 m
Genista radiata	.0,4 to 0,8 m	.0,5 to 1 m
Genista sagittalis	.0,1 to 0,2 m	.0,2 to 0,5 m
Genista tinctoria	.0,3 to 1 m	.0,3 to 0,8 m
Genista tinctoria 'Plena'	.0,3 to 0,8 m	.0,3 to 0,8 m
Hebe ochracea	.0,3 to 0,6 m	.0,5 to 1 m
Hypericum moserianum	.0,3 to 0,5 m	.0,3 to 0,6 m
Ilex crenata varieties	.1 to 1,5 m	.1,5 to 2 m
Kalmia latifolia	.2 to 3 m	.1 to 3 m
Kalmia latifolia 'Ostbo Red'	.0,5 to 1,2 m	.0,5 to 1,2 m
Lavandula angustifolia varieties	.0,4 to 0,5 m	.0,4 to 0,5 m



Groups according to size and growth rates 1

Deciduous plants

7. Dwarf shrubs (0,1 - 0,5m)

Genus/species/variety	Height	Width
Ledum palustre	.0,5 to 1 m	.0,5 to 1 m
Ligustrum vulgare 'Lodense'	.0,4 to 1 m	.0,5 to 0,8 m
Pernettya mucronata varieties	.0,6 to 1 m	.0,6 to 1 m
Potentilla fruticosa mandshurica	.0,3 to 0,5 m	.0,6 to 1 m
Rhododendron 'Radstrotrum'	.0,2 to 0,3 m	.0,3 to 0,5 m
Rhododendron camtschaticum	.0,2 to 0,3 m	.0,3 to 0,5 m
Rhododendron carolinianum varieties	.0,3 to 1 m	.0,6 to 1 m
Rhododendron impeditum varieties	.0,1 to 0,4 m	.0,5 to 1 m
Rhododendron kelticum	.0,1 to 0,2 m	.0,2 to 0,4 m
Rhododendron radicans	.0,1 to 0,2 m	.0,2 to 0,4 m
Rhododendron Repens hybrids varieties	.0,4 to 0,6 m	.0,8 to 1,3 m
Rhododendron Yakushimanum hybrids varieties	.0,4 to 0,6 m	.1 to 1,2 m
Rhododendron Azalea hybrids	.0,3 to 0,5 m	.0,3 to 0,5 m
Bedding Roses	.0,4 to 1 m	.1 to 1,5 m
Ground Cover Roses	.0,4 to 0,8 m	.1 to 1,5 m
Rubus calycinoides	.0,1 to 0,2 m	.0,5 to 1 m
Salix grahamii	.0,2 to 0,3 m	.0,6 to 1 m
Salix helvetica	.0,3 to 1,2 m	.0,8 to 1,2 m
Salix repens argentea	.0,3 to 0,5 m	.0,5 to 1 m
Sasa veitchii	.0,3 to 0,8 m	.2 to 4 m
Spiraea betulifolia 'Tor'	.0,5 to 1 m	.1 to 1,5 m
Spiraea decumbens	.0,2 to 0,3 m	.0,4 to 0,5 m
Spiraea japonica 'Little Princess'	.0,5 m	.0,9 m
Stephanandra incisa 'Crispa'	.0,4 to 0,8 m	.1 to 1,5 m
Vaccinium macrocarpon	.0,1 to 0,3 m	.0,5 to 0,8 m
Vaccinium vitis-idaea	.0,2 to 0,3 m	.0,2 to 0,3 m
Viburnum davidii	.0,3 to 1 m	.1 to 1,5 m

8. Semi-shrubs (base lignified, shoots not)

Genus/species/variety	Height	Width
Ceanothus varieties	.1 to 1,5 (2) m	.1 to 1,5 m
Clematis durandii	.1,2 to 1,5 m	.1 to 1,5 m
Clematis texensis varieties	.1 to 1,5 m	.1 to 1,5 m
Lavandula angustifolia varieties	.0,3 to 0,5 m	.0,3 to 0,5 m
Perovskia abredanoides	.1 to 1,5 m	.1 to 1,5 m

9. Climbers

See Tabel no. 50, Climbers

Conifers

1. Large trees (20 - 40 m)

Genus/species/variety	Height	Width
Abies concolor	20 to 25 m	.4 to 8 m
Abies homolepis	20 to 25 m	.4 to 6 m
Abies nordmanniana	.25 to 40 m	.5 to 8 m
Cedrus atlantica 'Glauca'	.15 to 40 m	.6 to 10 m
Cedrus deodara	.15 to 20 m	.6 to 10 m
Cedrus libani	.15 to 20 m	.6 to 10 m
Cupressocyparis leylandii	.15 to 25 m	.2 to 5 m
Ginkgo biloba	.15 to 30 m	.10 to 15 m
Larix decidua	.25 to 50 m	.4 to 10 m
Larix kaempferi	.25 to 30 m	.8 to 10 m
Metasequoia glyptostroboides	.20 to 35 m	.6 to 8 m
Picea abies	.25 to 60 m	.6 to 10 m
Picea omorika	.15 to 35 m	.2 to 3 m
Picea orientalis	.20 to 30 m	.4 to 8 m





1 Groups according to size and growth rates

Conifers

1. Large trees (20 - 40 m)

Genus/species/variety	Height	Width
<i>Picea pungens</i>	15 to 25 m	.6 to 8 m
<i>Picea sitchensis</i>	20 to 25 m	.6 to 10 m
<i>Pinus jeffreyi</i>	20 to 25 m	.8 to 12 m
<i>Pinus nigra austriaca</i>	20 to 40 m	.6 to 12 m
<i>Pinus ponderosa</i>	15 to 25 m	.6 to 10 m
<i>Pinus strobus</i>	15 to 40 m	.6 to 10 m
<i>Pinus sylvestris</i>	10 to 30 m	.5 to 10 m
<i>Pinus wallichiana</i>	15 to 30 m	.6 to 12 m
<i>Pseudotsuga menziesii caesia</i>	30 to 40 m	.7 to 10 m
<i>Sequoiadendron giganteum</i>	25 to 35 m	10 to 12 m
<i>Taxodium distichum</i>	20 to 30 m	.4 to 10 m

2. Medium-size trees (12/15 - 20 m)

Genus/species/variety	Height	Width
<i>Abies procera</i> 'Glauca'	15 to 18 m	.4 to 6 m
<i>Abies veitchii</i>	15 to 18 m	.4 to 6 m
<i>Cedrus deodara</i>	15 to 20 m	.6 to 10 m
<i>Cedrus libani</i>	15 to 20 m	.6 to 10 m
<i>Picea breweriana</i>	10 to 15 m	.4 to 6 m
<i>Picea pungens</i>	15 to 25 m	.6 to 8 m
<i>Picea pungens</i> 'Hoopsii'	10 to 15 m	.3 to 4 m
<i>Picea pungens</i> 'Koster'	10 to 20 m	.3 to 5 m
<i>Picea pungens</i> 'Oldenburg'	15 to 20 m	.6 to 8 m
<i>Picea pungens</i> 'glauca'	10 to 20 m	.6 to 8 m
<i>Pinus banksiana</i>	12 to 15 m	.6 to 10 m
<i>Pinus cembra</i>	15 to 20 m	.2 to 4 m
<i>Pinus contorta</i>	10 to 20 m	.4 to 6 m
<i>Pinus peuce</i>	10 to 20 m	.4 to 6 m
<i>Pinus schwerinii</i>	12 to 15 m	.7 to 10 m
<i>Sequoia sempervirens</i>	.6 to 12 m	.3 to 4 m
<i>Taxus baccata</i>	.5 to 18 m	.5 to 10 m
<i>Thuja occidentalis</i>	15 to 20 m	.3 to 5 m
<i>Thuja plicata</i> 'Excelsa'	.8 to 20 m	.3 to 7 m
<i>Tsuga canadensis</i>	12 to 25 m	.4 to 10 m

3. Small trees (7 - 12/15 m)

Genus/species/variety	Height	Width
<i>Abies koreana</i>	.5 to 8 m	.2 to 3 m
<i>Araucaria araucana</i>	.5 to 10 m	.3 to 6 m
<i>Cedrus</i> species and varieties	.5 to 12 m	.3 to 10 m
<i>Chamaecyparis lawsonia</i> varieties	.4 to 10 m	.1 to 4 m
<i>Chamaecyparis nootkatensis</i> 'Pendula'	.8 to 15 m	.3 to 5 m
<i>Chamaecyparis pisifera</i> varieties	.5 to 8 m	.3 to 4 m
<i>Cupressocyparis leylandii</i> 'Castlewelan Gold'	.7 to 12 m	.2 to 4 m
<i>Juniperus chinensis</i> 'Keteleeri'	.2 to 10 m	.1 to 3 m
<i>Juniperus virginiana</i> 'Canaertii'	.5 to 7 m	.2 to 4 m
<i>Juniperus virginiana</i> 'Glauca'	.6 to 10 m	.2 to 4 m
<i>Larix kaempferi</i> 'Diana'	.3 to 8 m	.2 to 3 m
<i>Larix kaempferi</i> 'Pendula'	.7 to 10 m	.2 to 3 m
<i>Picea abies</i> varieties	.3 to 8 m	.1 to 5 m
<i>Picea omorika</i> varieties	.4 to 10 m	.1 to 3 m
<i>Picea orientalis</i> varieties	.8 to 15 m	.4 to 7 m
<i>Picea pungens</i> varieties	10 to 20 m	.3 to 8 m
<i>Pinus aristata</i>	.2 to 6 m	.1 to 2,5 m
<i>Pinus contorta</i>	10 to 20 m	.4 to 6 m
<i>Pinus contorta</i> 'Compacta'	.2 to 15 m	.2 to 6 m
<i>Pinus densiflora</i> 'Pumila'	.2 to 3 m	.1 to 3 m
<i>Pinus leucormis</i>	.6 to 15 m	.3 to 6 m
<i>Pinus leucormis</i> 'Compact Gem'	.6 to 10 m	.3 to 6 m
<i>Pinus mugo</i>	.4 to 8 m	.2 to 4 m
<i>Pinus nigra</i> varieties	.4 to 6 m	.2 to 3 m



Groups according to size and growth rates 1

Conifers

3. Small trees (7 - 12/15 m)

Genus/species/variety	Height	Width
<i>Pinus parviflora</i> 'Glauca'	.5 to 15 m	.4 to 8 m
<i>Pinus peuce</i>	10 to 20 m	.4 to 6 m
<i>Pinus strobus</i> 'Radiata'	.3 to 5 m	.2 to 3 m
<i>Pinus sylvestris</i> varieties	.4 to 10 m	.1 to 2 m
<i>Pinus wallichiana</i> 'Densa Hill'	.5 to 7 m	.1 to 2 m
<i>Pseudolarix amabilis</i>	.8 to 15 m	.4 to 8 m
<i>Sciadopitys verticillata</i>	.5 to 10 m	.3 to 4 m
<i>Sequoia sempervirens</i>	.6 to 12 m	.3 to 4 m
<i>Taxus baccata</i> varieties	.5 to 18 m	.5 to 10 m
<i>Taxus baccata</i> varieties	.2 to 8 m	.1 to 8 m
<i>Thuja occidentalis</i> varieties	.3 to 8 m	.1 to 2 m
<i>Thuja plicata</i> varieties	.8 to 15 m	.3 to 7 m
<i>Thuja standishii</i>	.8 to 10 m	.4 to 6 m
<i>Thujopsis dolabrata</i>	.5 to 8 m	.4 to 6 m
<i>Tsuga diversifolia</i>	.5 to 10 m	.3 to 4 m
<i>Tsuga mertensiana</i>	.8 to 15 m	.2 to 4 m
<i>Tsuga mertensiana</i> 'Glauca'	.8 to 12 m	.2 to 4 m

4. Large shrubs (3 - 5/7 m)

Genus/species/variety	Height	Width
<i>Cedrus atlantica</i> varieties	.5 to 12 m	.3 to 8 m
<i>Cedrus deodara</i> 'Pendula'	.3 to 5 m	.3 to 5 m
<i>Chamaecyparis</i> species and varieties	.4 to 10 m	.1 to 3 m
<i>Cryptomeria japonica</i>	.6 to 8 m	.2 to 3 m
<i>Cryptomeria japonica</i> 'Cristata'	.6 to 8 m	.2 to 3 m
<i>Cryptomeria japonica</i> 'Elegans Viridis'	.6 to 8 m	.2 to 3 m
<i>Juniperus communis</i> 'Vemboö'	.3 to 5 m	.0,5 m
<i>Juniperus scopulorum</i> 'Wichita Blue'	.3 to 5 m	.1 to 2 m
<i>Juniperus</i> species and varieties	.2 to 4 m	.1 to 3 m
<i>Larix kaempferi</i> 'Diana'	.3 to 8 m	.2 to 3 m
<i>Picea abies</i> 'Acrocona'	.3 to 6 m	.1 to 5 m
<i>Picea abies</i> 'Inversa'	.3 to 8 m	.1 to 4 m
<i>Picea abies</i> 'Little Gem'	.3 to 8 m	.1 to 4 m
<i>Picea abies</i> 'Maxwellii'	.3 to 8 m	.1 to 4 m
<i>Picea abies</i> 'Nidiformis'	.1 to 5 m	.1 to 4 m
<i>Picea abies</i> 'Pygmaea'	.3 to 5 m	.1 to 4 m
<i>Picea abies</i> 'Virgata'	.3 to 8 m	.1 to 4 m
<i>Pinus aristata</i>	.2 to 6 m	.1 to 2,5 m
<i>Pinus contorta</i> 'Compacta'	.2 to 15 m	.2 to 6 m
<i>Pinus densiflora</i> 'Pumila'	.2 to 3 m	.1 to 3 m
<i>Pinus mugo</i> varieties	.4 to 5 m	.2 to 4 m
<i>Pinus strobus</i> 'Radiata'	.3 to 5 m	.2 to 3 m
<i>Pinus sylvestris</i> 'Watereri'	.3 to 5 m	.3 to 5 m
<i>Taxus</i> species and varieties	.2 to 8 m	.1 to 8 m
<i>Thuja</i> species and varieties	.3 to 8 m	.1 to 2 m
<i>Thujopsis dolabrata</i>	.5 to 8 m	.4 to 6 m
<i>Tsuga canadensis</i> 'Pendula'	.3 to 4 m	.3 to 4 m
<i>Tsuga diversifolia</i>	.5 to 10 m	.3 to 4 m
<i>Tsuga mertensiana</i> 'Glauca'	.8 to 12 m	.2 to 4 m

5. Normal shrubs / medium shrubs (1,5 - 3 m)

Genus/species/variety	Height	Width
<i>Juniperus media</i> 'Pfitzeriana Aurea'	.2 to 4 m	.2 to 6 m
<i>Picea pungens</i> 'Edith'	.2 to 3 m	.2 to 3 m
<i>Pinus mugo</i> mughus	.2 to 5 m	.2 to 5 m
<i>Taxus baccata</i> 'Washingtonii'	1,5 to 5 m	.1 to 8 m
<i>Taxus cuspidata</i> 'Nana'	.1 to 3 m	.3 to 7 m
<i>Thuja occidentalis</i> 'Woodwardii'	.1 to 3 m	.2 to 4 m





1 Groups according to size and growth rates

Conifers

6. Small shrubs (0,5 - 1,5 m)

Genus/species/variety	Height	Width
Chamaecyparis obtusa 'Nana Gracilis'.....	1 to 2 m.....	1 to 2 m
Chamaecyparis pisifera 'Boulevard'.....	2 to 4 m.....	1 to 2 m
Juniperus communis varieties.....	0,3 to 0,8 m.....	1,5 to 3 m
Juniperus media 'Old Gold'.....	1 to 2 m.....	2 to 3 m
Juniperus sabina varieties.....	0,5 to 1,5 m.....	2 to 3 m
Juniperus virginiana 'Grey Owl'.....	2 to 3 m.....	3 to 5 m
Picea abies varieties.....	1 to 5 m.....	0,5 to 4 m
Picea pungens 'Glauca Globosa'.....	1 to 3 m.....	1 to 3 m
Pinus densiflora 'Pumila'.....	2 to 3 m.....	1 to 3 m
Pinus mugo varieties.....	4 to 5 m.....	2 to 4 m
Pinus parviflora 'Negishi'.....	1 to 1,5 m.....	0,8 to 1,5 m
Pinus pumila varieties.....	1 to 3 m.....	1 to 2 m
Pinus strobus 'Macopin'.....	1 to 1,5 m.....	1 to 1,5 m
Pinus strobus 'Radiata'.....	3 to 5 m.....	2 to 3 m
Taxus baccata 'Repandens'.....	0,5 to 0,7 m.....	2 to 3 m
Taxus cuspidata 'Nana'.....	1 to 3 m.....	3 to 7 m
Taxus media 'Brownii'.....	2 to 3 m.....	3 to 4 m
Thuja occidentalis 'Tiny Tim'.....	0,5 to 1 m.....	0,8 to 1,5 m

7. Dwarf shrubs (0,1 - 0,5 m)

Genus/species/variety	Height	Width
Juniperus communis 'Repanda'.....	0,3 to 0,5 m.....	1,5 to 2 m
Juniperus horizontalis varieties.....	0,2 to 0,7 m.....	1,5 to 3 m
Juniperus sabina varieties.....	0,5 to 1,5 m.....	2 to 3 m
Juniperus squamata varieties.....	0,3 to 0,8 m.....	1,5 to 3 m
Picea abies 'Pumila Glauca'.....	0,4 to 0,6 m.....	1 to 1,5 m
Picea glauca 'Echiniformis'.....	0,3 to 2 m.....	0,5 to 2 m
Pinus mugo 'Mops'.....	0,3 to 2 m.....	0,5 to 2 m
Taxus baccata 'Repandens'.....	0,5 to 0,7 m.....	2 to 3 m
Thuja occidentalis 'Tiny Tim'.....	0,5 to 1 m.....	0,8 to 1,5 m

2 Street trees

Index of all varieties and species as standard

Genus/species/variety

Acer buergerianum
Acer campestre
Acer campestre 'Elsrijk'
Acer campestre 'Fastigiatum'
Acer campestre 'Huibers Elegant'
Acer campestre 'Nanum'
Acer campestre 'Queen Elizabeth'
Acer cappadocicum
Acer cappadocicum 'Aureum'
Acer cappadocicum 'Rubrum'
Acer freemanii 'Armstrong'
Acer freemanii 'Autumn Blaze'
Acer freemanii 'Celzam'
Acer monspessulanum
Acer negundo
Acer platanoides
Acer platanoides 'Cleveland'
Acer platanoides 'Columnare'
Acer platanoides 'Deborah'
Acer platanoides 'Drummondii'
Acer platanoides 'Emerald Queen'

Genus/species/variety

Acer platanoides 'Eurostar'
Acer platanoides 'Faassens' Black'
Acer platanoides 'Farlake's Green'
Acer platanoides 'Globosum'
Acer platanoides 'Royal Red'
Acer platanoides 'Schwedleri'
Acer pseudoplatanus
Acer pseudoplatanus 'Erectum'
Acer pseudoplatanus 'Negenia'
Acer rubrum
Acer rubrum 'October Glory'
Acer rubrum 'Red Sunset'
Acer rubrum 'Scanlon'
Acer saccharinum
Acer saccharinum 'Wieri'
Acer saccharinum 'Pyramidale'
Acer saccharum
Acer tataricum
Aesculus carnea 'Briotii'
Aesculus hippocastanum

Genus/species/variety

Aesculus hippocastanum 'Baumannii'
Ailanthus altissima
Alnus cordata
Alnus glutinosa
Alnus incana
Alnus spaethii
Amelanchier lamarckii
Betula nigra
Betula pendula
Betula pendula 'Dalecarlica'
Betula pendula 'Fastigiata'
Betula pendula 'Tristis'
Betula pendula 'Youngii'
Betula jacquemontii
Carpinus betulus
Carpinus betulus 'Columnaris'
Carpinus betulus 'Fastigiata'
Carpinus betulus 'Frans Fontaine'
Castanea sativa
Catalpa bignonioides
Catalpa bignonioides 'Nana'
Celtis australis
Cercidiphyllum japonicum
Cornus mas
Corylus colurna
Crataegus lavalleyi 'Carrierei'
Crataegus laevigata 'Paul's Scarlet'
Crataegus monogyna
Crataegus monogyna 'Stricta'
Crataegus coccinea
Crataegus crus galli
Fagus sylvatica
Fagus sylvatica 'Atropinicea'
Fagus sylvatica 'Pendula'
Fagus sylvatica purpurea, seedling
Fagus sylvatica 'Pupurea Pendula'
Fagus sylvatica 'Riversii'
Fagus sylvatica 'Swat Magret'
Fraxinus americana microcarpa
Fraxinus americana 'Autumn Applause'
Fraxinus americana 'Autumn Purple'
Fraxinus americana 'Skyline'
Fraxinus angustifolia 'Raywood'
Fraxinus excelsior
Fraxinus excelsior 'Atlas'

Genus/species/variety

Fraxinus excelsior 'Diversifolia'
Fraxinus excelsior 'Geessink'
Fraxinus excelsior 'Jaspidea'
Fraxinus excelsior 'Nana'
Fraxinus excelsior 'Pendula'
Fraxinus excelsior 'Westhof's Glorie'
Fraxinus ornus
Fraxinus pennsylvanica 'Cimmzam'
Fraxinus pennsylvanica 'Patmore'
Fraxinus pennsylvanica 'Summit'
Gleditsia triacanthos
Gleditsia triacanthos inermis
Gleditsia triacanthos 'Shademaster'
Gleditsia triacanthos 'Skyline'
Gleditsia triacanthos 'Sunburst'
Juglans cinerea
Juglans regia
Liquidambar styraciflua
Liquidambar styraciflua 'Gum Ball'
Liquidambar styraciflua 'Moraine'
Liquidambar styraciflua 'Slender Silhouette'
Liriodendron tulipifera
Liriodendron tulipifera 'Fastigiatum'
Magnolia kobus
Magnolia soulangiana
Magnolia loebneri 'Merrill'
Malus 'Beverly'
Malus 'Butterball'
Malus 'Red Jewel'
Malus baccata 'Street Parade'
Malus sylvestris
Malus floribunda
Malus 'Hillierii'
Malus 'Charlottae'
Malus 'Eleyi'
Malus 'Hopa'
Malus 'John Downie'
Malus 'Liset'
Malus 'Nicoline'
Malus 'Professor Sprenger'
Malus 'Profusion'
Malus 'Red Sentinel'
Malus 'Royalty'
Malus 'Rudolph'
Malus 'Striped Beauty'
Malus 'Van Eseltine'
Malus 'Tina'
Malus tschonoskii
Morus alba 'Fruitless'
Morus alba 'Macrophylla'
Ostrya carpinifolia
Paulownia tomentosa



Street trees 2





2 Street trees

Genus/species/variety

Parrotia persica

Platanus acerifolia
Platanus acerifolia 'Alphen's Globe'
Platanus acerifolia 'Tremonia'
Platanus orientalis

Populus alba 'Nivea'
Populus balsamifera
Populus berolinensis
Populus canescens
Populus canadensis 'Robusta'
Populus nigra
Populus nigra 'Italica'
Populus tremula
Populus tremula 'Erecta'
Prunus 'Accolade'
Prunus avium
Prunus avium 'Plena'
Prunus cerasifera 'Nigra'
Prunus fruticosa 'Globosa'
Prunus gondouinii 'Schnee'
Prunus maackii
Prunus maackii 'Amber Beauty'
Prunus padus
Prunus padus 'Watereri'
Prunus sargentii
Prunus schmittii
Prunus serrulata
Prunus serrulata 'Amanogawa'
Prunus serrulata 'Kiku-shidare-zakura'
Prunus serrulata 'Kanzan'
Prunus serrulata 'Pink Perfection'
Prunus serrulata 'Shimidsu-Sakura'
Prunus serrulata 'Shirofugen'
Prunus subhirtella 'Autumnalis'
Prunus subhirtella 'Autumnalis Rosea'
Prunus subhirtella 'Fukubana'
Prunus yedoensis

Pyrus calleryana 'Chanticleer'
Pyrus calleryana 'Bradford'
Pyrus communis 'Beech Hill'
Pyrus nivalis
Pyrus regelii
Pyrus salicifolia 'Pendula'

Quercus cerris
Quercus coccinea
Quercus frainetto
Quercus palustris
Quercus palustris 'Green Dwarf'
Quercus palustris 'Green Pillar'
Quercus petraea
Quercus robur
Quercus robur 'Fastigiata'
Quercus robur 'Fastigiata Koster'
Quercus rubra

Robinia 'Casque Rouge'
Robinia pseudoacacia
Robinia pseudoacacia 'Bessoniana'
Robinia pseudoacacia 'Frisia'
Robinia pseudoacacia 'Sandraudiga'

Genus/species/variety

Robinia pseudoacacia 'Semperflorens'
Robinia pseudoacacia 'Umbraculifera'
Robinia pseudoacacia 'Monophylla'

Salix alba
Salix alba 'Chermesina'
Salix alba 'Limpde'
Salix alba 'Belders'
Salix alba 'Tristis'
Salix alba 'Tristis Resistent'

Sophora japonica
Sophora japonica 'Regent'
Sorbus aria 'Lutescens'
Sorbus aria 'Magnifica'
Sorbus aria 'Majestica'
Sorbus aucuparia
Sorbus aucuparia 'Edulis'
Sorbus aucuparia 'Fastigiata'
Sorbus aucuparia 'Sheerwater Seedling'
Sorbus hybrida 'Gibbsii'
Sorbus intermedia
Sorbus intermedia 'Brouwers'
Sorbus serotina
Sorbus thuringiaca 'Fastigiata'
Sorbus vilmorinii

Tilia americana 'Nova'
Tilia cordata
Tilia cordata 'Erecta'
Tilia cordata 'Greenspire'
Tilia cordata 'Green Globe'
Tilia cordata 'Rancho'
Tilia cordata 'Roelvo'
Tilia eucliara
Tilia europaea
Tilia europaea 'Pallida'
Tilia flavescens 'Glenleven'
Tilia henryana
Tilia mongolica
Tilia platyphyllos
Tilia platyphyllos 'Laciniata'
Tilia platyphyllos 'Örebro'
Tilia platyphyllos 'Prince's Street'
Tilia platyphyllos 'Rubra'
Tilia tomentosa
Tilia tomentosa 'Brabant'

Ulmus carpiniifolia
Ulmus carpiniifolia 'Wredei'
Ulmus 'Columella'
Ulmus glabra 'Pendula'
Ulmus hollandica 'Commelin'
Ulmus hollandica 'Dodoens'
Ulmus hollandica 'Groeneveld'
Ulmus hollandica 'Plantijn'
Ulmus hollandica 'Lobel'
Ulmus laevis
Ulmus 'Sapporo Autumn Gold'

Zelkova serrata
Zelkova serrata 'Green Vase'
Zelkova serrata 'Village Green'



Height and crown diameter of 30-year-old trees 3

These are average sizes which are far exceeded in especially favourable areas but also fallen far short in extreme conditions. Initial growth between 60-180 cm a year in the first decade cannot necessarily be projected for the next decades as the growth rate does not by any means remain constant. It should also be kept in mind that the large trees will not yet have reached their maximum sizes, while the growth of small trees is already complete.

A further group of trees, usually the medium-size, are among the fastest-growing and shortest-lived. After 30 years, they are already in their final stage and begin their dying phase.

Plant names	Height	Crown diameter
Acer buergerianum	8 to 15 m	4 to 5 m
Acer campestre	8 to 11 m	5 to 12 m
Acer campestre 'Elsrijk'	6 to 10 m	4 to 6 m
Acer campestre 'Huibers Elegant'	10 to 12 m	4 to 6 m
Acer campestre 'Nanum'	4 to 7 m	2 to 3 m
Acer campestre 'Queen Elizabeth'	10 to 12 m	6 to 8 m
Acer cappadocicum	10 to 20 m	8 to 10 m
Acer ginnala	5 to 8 m	4 to 8 m
Acer monspessulanum	6 to 10 m	4 to 10 m
Acer neglectum 'Annae'	6 to 8 m	5 to 8 m
Acer negundo	8 to 14 m	5 to 16 m
Acer negundo 'Aureo-variegatum'	5 to 8 m	5 to 7 m
Acer negundo 'Odessanum'	6 to 10 m	5 to 8 m
Acer negundo 'Variegatum'	5 to 7 m	5 to 6 m
Acer platanoides	10 to 13 m	9 to 13 m
Acer platanoides 'Globosum'	5 to 8 m	4 to 6 m
Acer platanoides 'Schwedleri'	8 to 10 m	6 to 9 m
Acer pseudoplatanus	12 to 15 m	10 to 12 m
Acer pseudoplatanus 'Erectum'	10 to 13 m	6 to 8 m
Acer pseudoplatanus 'Negenia'	12 to 15 m	6 to 8 m
Acer rubrum	8 to 10 m	5 to 10 m
Acer rufrinerve	5 to 7 m	3 to 4 m
Acer saccharum	15 to 25 m	10 to 14 m
Acer saccharinum	15 to 19 m	12 to 20 m
Acer tataricum	5 to 10 m	5 to 10 m
Aesculus carnea 'Briotii'	7 to 11 m	6 to 9 m
Aesculus hippocastanum	0 to 13 m	8 to 12 m
Aesculus hippocastanum 'Baumannii'	8 to 12 m	7 to 9 m
Ailanthus altissima	10 to 12 m	9 to 13 m
Alnus cordata	9 to 12 m	3 to 6 m
Alnus glutinosa	9 to 12 m	6 to 9 m
Alnus incana	6 to 10 m	3 to 10 m
Alnus spaethii	8 to 11 m	5 to 8 m
Amelanchier lamarckii	5 to 8 m	3 to 5 m
Betula nigra	10 to 13 m	8 to 12 m
Betula papyrifera	14 to 16 m	13 to 15 m
Betula pendula	12 to 17 m	8 to 12 m
Betula pendula 'Youngii'	5 to 7 m	4 to 6 m
Betula pubescens	5 to 10 m	3 to 8 m
Betula jaquemonitii	6 to 14 m	8 to 10 m
Carpinus betulus	10 to 13 m	8 to 12 m
Carpinus betulus 'Fastigiata'	9 to 12 m	8 to 10 m
Castanea sativa	12 to 15 m	8 to 12 m
Catalpa bignonioides	6 to 8 m	5 to 7 m
Catalpa bignonioides 'Nana'	4 to 6 m	2 to 4 m
Celtis australis	10 to 25 m	15 to 20 m
Cercidiphyllum japonicum	7 to 10 m	4 to 8 m
Cornus alternifolia	4 to 6 m	4 to 6 m
Cornus controversa	6 to 8 m	4 to 6 m
Cornus florida	4 to 6 m	3 to 5 m
Cornus kousa	4 to 7 m	3 to 4 m
Cornus kousa chinensis	5 to 8 m	4 to 5 m
Corylus colurna	9 to 13 m	6 to 10 m
Crataegus coccinea	5 to 7 m	3 to 6 m
Crataegus laevigata 'Paul's Scarlet'	3 to 8 m	3 to 6 m
Crataegus lavallei	5 to 10 m	3 to 8 m





3 Height and crown diameter of 30-year-old trees

Plant names	Height	Crown diameter
Crataegus monogyna	.5 to 8 m	.3 to 5 m
Crataegus monogyna 'Stricta'	.4 to 6 m	.1 to 2 m
Crataegus prunifolia 'Splendens'	.5 to 7 m	.3 to 5 m
Davidia involucrata vilmoriniana	.5 to 8 m	.6 to 8 m
Elaeagnus angustifolia	.5 to 8 m	.3 to 6 m
Fagus sylvatica	10 to 14 m	.8 to 11 m
Fagus sylvatica 'Atropunicea'	.8 to 12 m	.8 to 10 m
Fraxinus americana microcarpa	12 to 15 m	.8 to 10 m
Fraxinus americana 'Autumn Applause'	10 to 12 m	.6 to 8 m
Fraxinus americana 'Autumn Purple'	12 to 15 m	10 to 12 m
Fraxinus americana 'Skyline'	10 to 15 m	.6 to 10 m
Fraxinus excelsior	12 to 16 m	10 to 13 m
Fraxinus excelsior 'Altena'	12 to 14 m	.8 to 10 m
Fraxinus excelsior 'Diversifolia'	.7 to 10 m	.6 to 9 m
Fraxinus excelsior 'Nana'	.4 to 8 m	.2 to 4 m
Fraxinus excelsior 'Westhofs Glorie'	12 to 15 m	.8 to 11 m
Fraxinus ornus	.6 to 8 m	.3 to 5 m
Fraxinus pennsylvanica 'Cimmzam'	18 to 20 m	.8 to 10 m
Fraxinus pennsylvanica 'Patmore'	15 to 20 m	12 to 15 m
Fraxinus pennsylvanica 'Summit'	15 to 18 m	.2 to 3 m
Ginkgo biloba	.8 to 10 m	.4 to 8 m
Gleditsia triacanthos	.9 to 13 m	.6 to 10 m
Gleditsia triacanthos inermis	.8 to 13 m	.6 to 10 m
Gleditsia triacanthos 'Skyline'	.8 to 12 m	.5 to 8 m
Juglans cinerea	18 to 25 m	.8 to 10 m
Juglans regia	.8 to 13 m	.6 to 12 m
Koelreuteria paniculata	.6 to 10 m	.4 to 8 m
Laburnum watereri 'Vossii'	.5 to 6 m	.3 to 4 m
Liquidambar styraciflua	.6 to 10 m	.5 to 8 m
Liquidambar styraciflua 'Gum Ball'	.3 to 8 m	.2 to 4 m
Liquidambar styraciflua 'Moraine'	10 to 25 m	.6 to 10 m
Liquidambar styraciflua 'Slender Silhouette'	10 to 15 m	.05 to 0,8 m
Liriodendron tulipifera	12 to 14 m	.9 to 12 m
Lonicera maackii	.4 to 6 m	.4 to 6 m
Magnolia kobus	.8 to 10 m	.8 to 10 m
Magnolia soulangiana	.3 to 8 m	.3 to 6 m
Malus floribunda	.5 to 8 m	.4 to 8 m
Malus 'Hillieri'	.5 to 8 m	.4 to 8 m
Malus 'Wintergold'	.5 to 8 m	.4 to 8 m
Malus sylvestris	.5 to 12 m	.5 to 10 m
Malus 'Tina'	.5 to 12 m	.5 to 10 m
Malus tschonoskii	.8 to 12 m	.4 to 6 m
Malus 'Prof. Sprenger'	.8 to 12 m	.4 to 6 m
Morus alba 'Fruitless'	.8 to 10 m	.4 to 8 m
Morus alba 'Macrophylla'	10 to 15 m	.6 to 7 m
Parrotia persica	.7 to 10 m	.5 to 8 m
Platanus acerifolia	12 to 16 m	11 to 16 m
Platanus acerifolia 'Alphen's Globe'	4,5 to 6,5 m	.3 to 4 m
Platanus acerifolia 'Tremonia'	15 to 30 m	.8 to 10 m
Platanus orientalis	25 to 35 m	15 to 25 m
Populus alba 'Nivea'	12 to 18 m	10 to 16 m
Populus balsamifera	12 to 15 m	.7 to 9 m
Populus berolinensis	12 to 16 m	.6 to 9 m
Populus canadensis 'Robusta'	15 to 20 m	11 to 14 m
Populus canescens	12 to 18 m	10 to 14 m
Populus nigra	20 to 30 m	15 to 20 m
Populus nigra 'Italica'	15 to 20 m	.3 to 4 m
Populus simonii	12 to 15 m	.6 to 10 m
Populus tremula	14 to 17 m	.8 to 10 m
Populus tremula 'Erecta'	10 to 14 m	.2 to 4 m
Prunus 'Accolade'	.5 to 8 m	.4 to 6 m
Prunus avium	10 to 13 m	.7 to 11 m
Prunus avium 'Plena'	.5 to 9 m	.5 to 8 m
Prunus cerasifera 'Nigra'	.4 to 7 m	.3 to 5 m



Height and crown diameter of 30-year-old trees 3

Plant names	Height	Crown diameter
Prunus fruticosa 'Globosa'	.3 to 5 m	.2 to 4 m
Prunus hillieri 'Spire'	.5 to 8 m	.2 to 3 m
Prunus lusitanica	4,5 to 7 m	.3 to 5 m
Prunus lusitanica 'Angustifolia'	.4 to 6 m	.2 to 4 m
Prunus padus	.6 to 11 m	.5 to 8 m
Prunus sargentii	.6 to 12 m	.4 to 8 m
Prunus serrulata 'Amanogawa'	.5 to 7 m	.2 to 3 m
Prunus serrulata 'Kanzan'	.6 to 10 m	.5 to 7 m
Prunus serrulata 'Kiku-shidare-zakura'	.4 to 6 m	.3 to 4 m
Prunus serrulata 'Okumiyako'	.3 to 4 m	.2 to 4 m
Prunus serrulata 'Shirofugen'	.6 to 9 m	.4 to 5 m
Prunus subhirtella 'Autumnalis'	.4 to 5 m	.3 to 5 m
Prunus subhirtella 'Fukubana'	.3 to 6 m	.2 to 4 m
Prunus triloba	.2 to 3 m	.2 to 3 m
Prunus yedoensis	.5 to 7 m	.5 to 7 m
Pterocarya fraxinifolia	10 to 13 m	10 to 18 m
Pyrus calleryana 'Chanticleer'	.7 to 10 m	.4 to 5 m
Pyrus nivalis	.6 to 10 m	.5 to 7 m
Pyrus salicifolia	.4 to 5 m	.3 to 4 m
Quercus cerris	.8 to 12 m	.6 to 8 m
Quercus coccinea	10 to 12 m	.7 to 10 m
Quercus frainetto	12 to 14 m	.8 to 12 m
Quercus palustris	10 to 13 m	.6 to 12 m
Quercus petraea	10 to 14 m	.8 to 12 m
Quercus robur	13 to 16 m	.9 to 12 m
Quercus robur 'Fastigiata'	10 to 13 m	.6 to 8 m
Quercus rubra	10 to 15 m	.7 to 12 m
Rhus typhina	.5 to 8 m	.4 to 6 m
Robinia pseudoacacia	10 to 16 m	.7 to 18 m
Robinia pseudoacacia 'Bessoniana'	10 to 14 m	.5 to 10 m
Robinia pseudoacacia 'Sandraudiga'	10 to 14 m	.7 to 10 m
Robinia pseudoacacia 'Semperflorens'	10 to 16 m	.7 to 11 m
Robinia pseudoacacia 'Tortuosa'	.8 to 10 m	.5 to 8 m
Robinia pseudoacacia 'Umbraculifera'	.4 to 6 m	.4 to 6 m
Robinia pseudoacacia 'Unifolia'	.8 to 13 m	.5 to 8 m
Salix alba	10 to 20 m	.8 to 15 m
Salix alba 'Chermesina'	.9 to 15 m	.9 to 15 m
Salix alba 'Liempde'	12 to 20 m	.6 to 10 m
Salix alba 'Tristis'	12 to 18 m	10 to 15 m
Salix caprea	.6 to 8 m	.4 to 5 m
Salix daphnoides 'Praecox'	.5 to 8 m	.3 to 5 m
Salix matsudana 'Tortuosa'	.8 to 10 m	.6 to 8 m
Sophora japonica	.9 to 13 m	.9 to 12 m
Sophora japonica 'Regent'	.9 to 13 m	.8 to 10 m
Sorbus aria 'Magnifica'	.8 to 12 m	.4 to 6 m
Sorbus aria 'Majestica'	.8 to 12 m	.4 to 6 m
Sorbus aucuparia	.5 to 10 m	.4 to 9 m
Sorbus aucuparia 'Edulis'	.8 to 12 m	.5 to 10 m
Sorbus aucuparia 'Fastigiata'	.5 to 7 m	.4 to 6 m
Sorbus aucuparia 'Sheerwater Seedling'	.6 to 10 m	.3 to 4 m
Sorbus hybrida 'Gibbsii'	.5 to 7 m	.3 to 4 m
Sorbus intermedia 'Brouwers'	.8 to 10 m	.4 to 6 m
Sorbus thuringiaca 'Fastigiata'	.5 to 8 m	.3 to 4 m
Sorbus vilmorinii	.3 to 6 m	.3 to 5 m
Styrax japonicus	.5 to 8 m	.4 to 6 m
Styrax obassia	.5 to 7 m	.3 to 5 m
Tilia cordata	12 to 16 m	.9 to 13 m
Tilia cordata 'Erecta'	.9 to 12 m	.5 to 10 m
Tilia cordata 'Greenspire'	10 to 13 m	.7 to 10 m
Tilia cordata 'Green Globe'	.6 to 8 m	.4 to 6 m
Tilia cordata 'Roelvo'	10 to 15 m	.6 to 10 m
Tilia cordata 'Winter Orange'	.8 to 10 m	.4 to 8 m
Tilia euchlora	12 to 15 m	.6 to 10 m
Tilia europaea 'Pallida'	11 to 16 m	.9 to 13 m





3 Height and crown diameter of 30-year-old trees

Plant names	Height	Crown diameter
Tilia henryana	9 to 12 m	6 to 8 m
Tilia mongolica	6 to 12 m	4 to 8 m
Tilia platyphyllos	11 to 16 m	11 to 14 m
Tilia platyphyllos 'Laciniata'	10 to 15 m	6 to 10 m
Tilia platyphyllos 'Örebro'	10 to 18 m	5 to 8 m
Tilia platyphyllos 'Prince's Street'	15 to 20 m	8 to 10 m
Tilia platyphyllos 'Rubra'	12 to 16 m	10 to 13 m
Tilia tomentosa	10 to 13 m	12 to 14 m
Tilia tomentosa 'Brabant'	10 to 14 m	8 to 10 m
Tilia vulgaris	10 to 15 m	8 to 13 m
Ulmus carpinifolia 'Wredei'	8 to 10 m	3 to 4 m
Ulmus 'Columella'	15 to 20 m	4 to 6 m
Ulmus glabra 'Pendula'	3 to 5 m	6 to 10 m
Ulmus hollandica 'Lobel'	10 to 13 m	5 to 6 m
Ulmus laevis	10 to 12 m	9 to 12 m
Ulmus 'Sapporo Autumn Gold'	12 to 15 m	5 to 7 m
Zelkova serrata	8 to 12 m	8 to 12 m

4 Bizarre Habits

This group of plants with unique branching habits that produce wonderful effects when leaves have fallen. They should only be planted as lone specimens in front of a neutral background where they are not overshadowed by larger, more conspicuous plants lest their picturesque effects be lost. Their partners should be shrubs or low perennials that clearly smaller.

1. Deciduous plants	Genus/species/variety	Height	Width	Habit
Corylus avellana 'Contorta'	2 - 4 m	2 - 4 m	twigs twisted like corkscrews	
Euonymus phellomanus	1 - 3 m	1 - 3 m	asymmetrical with wing-shaped corky shoots	
Nothofagus antarctica	4 - 6 m	3 - 4 m	twigs twisted, asymmetrical habit	
Robinia pseudoacacia 'Tortuosa'	12 - 15 m	6 - 8 m	asymmetrical crown, twigs twisted	
Salix matsudana 'Tortuosa'	4 - 8 m	4 - 6 m	spiralling, twisted branches and twigs	
Salix sachalinensis 'Sekka'	2 - 3 m	2 - 4 m	belt-like, somewhat twisted twigs	
Ulmus carpinifolia 'Wredei'	8 - 10 m	3 - 4 m	asymmetrical funnel crown, leaves twisted	
2. Conifers	Genus/species/variety	Height	Width	Habit
Abies procera 'Glauca'	15 - 18 mm	4 - 6 mm	asymmetrical habit, several shoots	
Chamaecyparis obtusa 'Nana Gracilis'	2 - 3 mm	1 - 2 mm	twigs like fans or shells	
Cryptomeria japonica 'Cristata'	6 - 8 mm	2 - 3 mm	twigs tips fanned out	
Larix kaempferi 'Diana'	5 - 8 mm	2 - 3 mm	twigs twisted like corkscrews	
Picea abies 'Acrocona'	3 - 5 mm	2 - 4 mm	conspicuous cones	
Picea abies 'Inversa'	5 - 8 mm	1 - 2 mm	twigs asymmetrical draped	
Picea abies 'Virgata'	12 - 15 mm	4 - 6 mm	bizarre-asymmetrical twigs	
Picea orientalis 'Nutans'	8 - 12 mm	5 - 7 mm	branches in various growth directions	
Picea omorika 'Pendula'	8 - 10 mm	1 - 2 mm	hanging branches, twisted twigs	

5 Conical crowns

Most conical trees gradually develop in the course of their growth from slender, symmetrically conical figures to extended, sometimes even round-crown trees with deeply set crowns. Some varieties and species do not develop round crowns with age but retain their conical habits, merely becoming broader.

1. Deciduous plants	Genus/species/variety	Height	Width	Habit
Acer campestre 'Elsrijk'	8 - 12 m	4 - 6 m	broadly ovoid	
Acer freemanii 'Celzam'	12 - 15 m	6 - 8 m	small conical	
Acer platanoides 'Eurostar'	12 - 15 m	5 - 6 m	broadly ovoid	
Acer pseudoplatanus 'Negenia'	20 - 25 m	6 - 8 m	domed ovoid	
Acer rubrum (single stem) varieties	7 - 12 m	4 - 7 m	broadly conical to ovoid	
Acer rufrinerve	4 - 7 m	2 - 4 m	asymmetrically broadly conical	



Conical crowns 5

1. Deciduous plants	Genus/species/variety	Height	Width	Habit
Alnus cordata	8 - 15 m	3 - 6 m	broadly conical to ovoid	
Alnus incana (single stem) varieties	8 - 12 m	3 - 6 m	asymmetrically broadly conical	
Alnus spaethii	12 - 15 m	6 - 8 m	asymmetrically, conical	
Betula ermanii	15 - 20 m	6 - 8 m	broadly conical	
Betula maximowicziana	15 - 20 m	8 - 12 m	asymmetrically broadly conical	
Carpinus betulus 'Quercifolia'	15 - 25 m	6 - 10 m	domed, broadly ovoid	
Cornus controversa	6 - 8 m	4 - 6 m	broadly conical to round	
Corylus colurna	12 - 15 m	6 - 8 m	broadly conical to round	
Fagus sylvatica varieties	15 - 25 m	10 - 15 m	domed to round crown	
Fraxinus angustifolia 'Raywood'	15 - 20 m	7 - 10 m	broadly ovoid	
Fraxinus excelsior varieties	20 - 25 m	10 - 15 m	broadly conical to ovoid	
Gleditsia triacanthos 'Skyline'	12 - 15 m	5 - 8 m	loosely broadly conical	
Ilex aquifolium (single stem)	5 - 10 m	3 - 4 m	broadly conical to ovoid	
Liquidambar styraciflua	10 - 15 m	4 - 8 m	asymmetrically, conical	
Liquidambar styraciflua 'Moraine'	10 - 25 m	6 - 10 m	compact conical	
Liriodendron tulipifera 'Fastigiatum'	15 - 20 m	5 - 7 m	broadly vase-shaped	
Malus 'Evereste'	4 - 6 m	3 - 5 m	broadly conical	
Malus tschonoskii	8 - 12 m	3 - 5 m	broadly ovoid	
Magnolia grandiflora 'Blanchard'	6 - 10 m	4 - 6 m	asymmetrically broadly conical	
Nyssa sylvatica	15 - 20 m	8 - 12 m	flattened crown	
Platanus acerifolia 'Tremonia'	15 - 30 m	8 - 10 m	broadly conical to ovoid	
Populus berolinensis	20 - 25 m	8 - 10 m	asymmetrically, domed	
Prunus avium	15 - 20 m	8 - 12 m	broadly ovoid to round	
Prunus hillieri 'Spire'	6 - 8 m	2 - 3 m	broadly conical to round	
Prunus schmittii	6 - 12 m	3 - 4 m	broadly conical	
Pyrus calleryana varieties	7 - 9 m	4 - 5 m	loose and broadly conical	
Pyrus communis	5 - 15 m	5 - 10 m	domed crown	
Quercus coccinea	15 - 20 m	8 - 12 m	open, loosely asymmetrical	
Robinia pseudoacacia 'Monophylla'	10 - 15 m	6 - 8 m	slenderly ovoid, domed	
Robinia pseudoacacia 'Sandraudiga'	15 - 20 m	8 - 12 m	asymmetrically broadly conical	
Salix alba 'Liempe'	25 - 30 m	8 - 10 m	conical to domed	
Sophora japonica 'Regent'	10 - 15 m	10 - 12 m	expansively ovoid	
Sorbus aria varieties	6 - 12 m	4 - 6 m	broadly conical	
Sorbus aucuparia 'Sheerwater Seedling'	6 - 10 m	3 - 4 m	compact ovoid	
Sorbus hybrida 'Gibbsii'	5 - 7 m	3 - 4 m	broadly conical	
Sorbus intermedia varieties	8 - 10 m	4 - 6 m	extended	
Sorbus thuringiaca 'Fastigiata'	5 - 8 m	3 - 4 m	broadly conical	
Tilia cordata 'Greenspire'	12 - 15 m	6 - 12 m	broadly conical	
Tilia cordata 'Rancho'	9 - 12 m	4 - 6 m	compact, conical	
Tilia cordata 'Roelvo'	10 - 15 m	6 - 10 m	small conical	
Tilia euchlora	15 - 18 m	7 - 10 m	domed and overhanging	
Tilia flavescens 'Glenleven'	15 - 20 m	8 - 12 m	loosely ovoid	
Tilia europaea 'Pallida'	30 - 40 m	10 - 15 m	domed to round crown	
Tilia platyphyllos 'Örebro'	10 - 18 m	5 - 8 m	small conical to ovoid	
Ulmus - hybrids	12 - 15 m	5 - 6 m	compact to loosely conical or broadly ovoid	
2. Conifers	Genus/species/variety	Height	Width	Habit
Abies species and varieties	5 - 8/25 - 30 m	2 - 3/8 - 10 m	broadly conical to flattened	
Araucaria araucana	5 - 7 m	3 - 4 m	flattened crown	
Chamaecyparis species and varieties	3 - 4/8 - 10 m	1 - 2/2 - 4 m	broadly conical	
Juniperus species and varieties	1 - 2/6 - 8 m	1 - 2/2 - 4 m	asymmetrical, loose	
Larix species	25 - 30 m	8 - 10 m	broadly conical	
Metasequoia glyptostroboides	20 - 30 m	6 - 8 m	loose, conical	
Picea species and varieties	1 - 2/25 - 40 m	1 - 2/6 - 8 m	loose, conical	
Picea pungens 'Edith'	3 - 3.5 m	2 - 3 m	broadly conical to ovoid	
Pinus species and varieties	2 - 6/20 - 30 m	1 - 2/6 - 10 m	asymmetrically, conical	
Pseudolarix amabilis	8 - 12 m	4 - 8 m	loosely asymmetrical	
Pseudotsuga menziesii	30 - 40 m	7 - 10 m	extendedly asymmetrical	
Sciadopitys verticillata	5 - 8 m	3 - 4 m	loosely conical	
Sequoiadendron giganteum	25 - 35 m	10 - 12 m	always conical	
Taxodium distichum	20 - 25 m	5 - 8 m	loosely conical	
Taxus baccata 'Dovastoniana'	6 - 8 m	4 - 6 m	loosely conical	
Taxus baccata 'Overeynderi'	3 - 5 m	2 - 4 m	broadly ovoid	





5 Conical crowns

2. Conifers	Genus/species/variety	Height	Width	Habit
	Taxus media varieties	3 - 5 m	2 - 4 m	loosely reaching all directions
	Thuja species and varieties	3 - 5/15 - 20 m	1 - 2/3 - 5 m	compactly conical
	Thujopsis dolabrata	5 - 10 m	4 - 8 m	broadly conical
	Tsuga species	5 - 8/12 - 15 m	3 - 4/5 - 8 m	loosely asymmetrical

6 Small trees with round crowns

Round-headed trees are without exception slow-growing small trees. They form a densely branched, compact crown that gradually becomes more flattened with age, i.e. the crowns are wider than tall when old. Only then is corrective pruning necessary. Otherwise, cutting is only necessary when the crown loses its shape and falls apart. It is not necessary to prune the trees every year.

Genus/species/variety	Height	Width	Flowers
Acer campestre 'Nanum'	4 - 7 m	2 - 3 m	yellow
Acer platanoides 'Globosum'	5 - 8 m	3 - 5 m	yellow
Aesculus hippocastanum 'Umbraculifera'	5 - 7 m	4 - 6 m	white
Catalpa bignonioides 'Nana'	4 - 6 m	2 - 3 m	no flowers
Fraxinus excelsior 'Nana'	3 - 5 m	2 - 3 m	no flowers
Liquidambar styraciflua 'Gum Ball'	3 - 8 m	2 - 4 m	inconspicuous
Platanus acerifolia 'Alphen's Globe'	4 - 7 m	3 - 4 m	inconspicuous
Prunus fruticosa 'Globosa'	3 - 5 m	2 - 3 m	white
Robinia pseudoacacia 'Umbraculifera'	4 - 6 m	4 - 6 m	no flowers
Quercus palustris 'Green Dwarf'	in the moment unknown	in the moment unknown	inconspicuous
Tilia cordata 'Green Globe'	6 - 8 m	4 - 5 m	white

7 Columnar crowns

Columnar deciduous trees are without exception cultivars as no slender tree types occur in the wild. A slender crown can be seen with young trees that want to grow up between older trees as quickly as possible. Once they have reached light, they begin to grow wider as is typical for their species. Similar behaviour, though not as pronounced, can be seen with almost all columnar trees: they change their appearance as they age, initially growing slender-columnar, and gradually widening into conical or ovoid crowns. Some even develop almost round crowns.

The naturally slender conifers behave in much the same manner. Their initially extremely slender habit gradually becomes cylindrical or even vase-shaped to barrel-shaped.

1. Deciduous plants	Genus/species/variety	Height	Width
	Acer campestre 'Fastigiatum'	10 - 12 m	2 - 3 m
	Acer freemanii 'Armstrong'	10 - 15 m	2 - 3 m
	Acer platanoides 'Columnare'	8 - 10 m	3 - 4 m
	Acer pseudoplatanus 'Erectum'	15 - 20 m	6 - 8 m
	Acer saccharinum 'Pyramidale'	15 - 20 m	6 - 8 m
	Aesculus hippocastanum 'Pyramidalis'	12 - 15 m	6 - 8 m
	Betula pendula 'Fastigiata'	15 - 20 m	4 - 6 m
	Carpinus betulus 'Columnaris'	8 - 12 m	6 - 10 m
	Carpinus betulus 'Fastigiata'	10 - 15 m	6 - 10 m
	Carpinus betulus 'Frans Fontaine'	5 - 8 m	3 - 4 m
	Carpinus betulus 'Fastigiata Monument'	4 - 6 m	1 - 1,5 m
	Fagus sylvatica 'Dawyck'	15 - 25 m	3 - 6 m
	Fagus sylvatica 'Dawyck Gold'	4 - 8 m	2 - 3 m
	Liquidambar styraciflua 'Slender Silhouette'	10 - 15 m	0,5 - 0,8 m
	Malus 'Van Eseltine'	4 - 6 m	3 - 4 m
	Malus tschonoskii	8 - 12 m	2 - 4 m
	Populus nigra 'Italica'	25 - 30 m	4 - 8 m
	Populus tremula 'Erecta'	10 - 15 m	2 - 3 m
	Prunus hillieri 'Spire'	6 - 8 m	2 - 3 m
	Prunus serrulata 'Amanogawa'	4 - 7 m	1 - 4 m
	Pyrus communis 'Beech Hill'	8 - 10 m	3 - 5 m



Columnar crowns 7

1. Deciduous plants	Genus/species/variety	Height	Width
	Quercus palustris 'Green Pillar'	15 - 20 m	4 - 5 m
	Quercus robur 'Fastigiata'	25 - 30 m	6 - 10 m
	Robinia pseudoacacia 'Pyramidalis'	6 - 10 m	5 - 8 m
	Salix alba 'Liempe'	15 - 20 m	3 - 6 m
	Sorbus aria 'Majestica'	6 - 12 m	4 - 6 m
	Sorbus aucuparia 'Fastigiata'	5 - 7 m	2 - 4 m
	Sorbus aucuparia 'Sheerwater Seedling'	6 - 10 m	3 - 4 m
	Sorbus thuringiaca 'Fastigiata'	5 - 8 m	3 - 4 m
	Tilia platyphyllos 'Prince's Street'	12 m	5 m
	Ulmus 'Columella'	15 - 20 m	4 - 6 m
	Tilia cordata 'Erecta'	15 - 18 m	5 - 10 m
	Ulmus hollandica 'Lobel'	12 - 15 m	4 - 6 m

2. Conifers	Genus/species/variety	Height	Width
	Chamaecyparis lawsoniana 'Alumigold'	6 - 8 m	2 - 3 m
	Chamaecyparis lawsoniana 'Alumii'	8 - 10 m	2 - 4 m
	Chamaecyparis lawsoniana 'Columnaris'	5 - 10 m	1 - 2 m
	Chamaecyparis lawsoniana 'Columnaris Glauca'	5 - 8 m	1 - 2 m
	Chamaecyparis lawsoniana 'Ellwoodii'	2 - 4 m	1 - 1,5 m
	Chamaecyparis lawsoniana 'Ellwood's Gold'	2 - 3 m	0,5 - 1,5 m
	Chamaecyparis lawsoniana 'Kelleris Gold'	6 - 8 m	2 - 3 m
	Chamaecyparis lawsoniana 'Lane'	4 - 7 m	2 - 3 m
	Cupressocyparis leylandii	15 - 25 m	2 - 3 m
	Cupressocyparis leylandii 'Castlewellan Gold'	7 - 12 m	2 - 4 m
	Juniperus chinensis 'Keteleeri'	8 - 10 m	1,5 - 2 m
	Juniperus chinensis 'Spartan'	1,5 - 3 m	0,8 - 1,2 m
	Juniperus communis 'Hibernica'	3 - 4 m	1 - 2 m
	Juniperus communis 'Meyer'	3 - 5 m	1 - 1,5 m
	Juniperus communis 'Suecica'	3 - 4 m	1 - 1,5 m
	Juniperus communis 'Vemboö'	3 - 5 m	0,5 - 0,8 m
	Juniperus chinensis 'Blaauw'	1,5 - 2,5 m	1 - 2 m
	Juniperus virginiana 'Glauca'	6 - 8 m	2 - 4 m
	Juniperus scopulorum 'Skyrocket'	5 - 7 m	0,5 - 1 m
	Juniperus scopulorum 'Wichita Blue'	4 - 6 m	1 - 1,5 m
	Picea omorika	20 - 25 m	2 - 4 m
	Pinus mugo 'Columnaris'	2 - 3 m	0,8 - 1,2 m
	Pinus nigra pyramidata	5 - 8 m	2 - 3 m
	Pinus sylvestris 'Fastigiata'	4 - 7 m	1 - 2 m
	Taxus baccata 'Fastigiata'	5 - 7 m	2 - 5 m
	Taxus baccata 'Fastigiata Aureomarginata'	2 - 4 m	2 - 3 m
	Taxus baccata 'Fastigiata Robusta'	3 - 8 m	1 - 2 m
	Taxus media 'Hicksii'	3 - 5 m	2 - 4 m
	Thuja occidentalis 'Columna'	5 - 8 m	1 - 2 m
	Thuja occidentalis 'Holmstrup'	3 - 4 m	0,8 - 1,5 m
	Thuja occidentalis 'Smaragd'	3 - 5 m	1 - 2 m

Umbrella crowns 8

Crowns that spread out like umbrellas are only found among fully grown trees. Young trees initially have an ovoid, conical or vase-shaped structure. Their originally slender crowns spread out with time into flatly extended to overhanging twig umbrellas.

Umbrella crowns are recommended along paths and as deciduous trees for tucked away, protected benches or small areas that need shade. Underplanting over broad areas is quite possible as only light shade is cast under the crowns.

1. Deciduous plants	Genus/species/variety	Height	Width	Flower colour	Habit development
	Acer ginnala	5 - 6 m	4 - 10 m	white	always extended
	Amelanchier lamarckii	5 - 8 m	3 - 5 m	white	standards have broad habits
	Aralia elata	3 - 5 m	2 - 3 m	white	several stems, extended
	Aralia elata 'Variegata'	3 - 4 m	2 - 3 m	white	loosely umbrella-shaped
	Betula nigra	15 - 20 m	6 - 8 m		asymmetrically umbrella-shaped





8 Umbrella crowns

1. Deciduous plants	Genus/species/variety	Height	Width	Flower colour	Habit development
	Betula pendula 'Youngii'	5 - 7 m	3 - 4 m		overhanging
	Celtis australis	10 - 25 m	15 - 20 m	inconspicuous	broadly round to umbrella-shaped
	Cercis siliquastrum	4 - 6 m	4 - 6 m	pink	always extended
	Clerodendron trichotomum	2 - 3 m	2 - 3 m	white	loosely umbrella-shaped
	Cornus officinalis	4 - 10 m	4 - 10 m	yellow	broadly extended
	Crataegus lavallei 'Carrierei'	5 - 8 m	3 - 5 m	white	asymmetrically umbrella-shaped
	Crataegus crus galli	5 - 7 m	3 - 5 m	white	crown flattened
	Euodia hupehensis	6 - 12 m	6 - 10 m	white	somewhat umbrella-shaped
	Gleditsia triacanthos	15 - 25 m	8 - 10 m	white	asymmetrically umbrella-shaped
	Hamamelis virginiana	4 - 7 m	3 - 5 m	yellow	umbrella-shaped as small tree
	Koeleruteria paniculata	6 - 8 m	4 - 8 m	yellow	initially round crown
	Lonicera maackii	4 - 6 m	4 - 6 m	white	always extended
	Magnolia loebneri 'Leonard Messel'	3 - 6 m	3 - 8 m	pink - white	extremely broad
	Malus 'Hillieri'	4 - 8 m	4 - 6 m	pink	initially domed
	Mespilus germanica	3 - 5 m	3 - 5 m	white	broadly extended
	Parrotia persica	5 - 7 m	5 - 7 m	reddish	umbrella-shaped standard
	Paulownia tomentosa	8 - 15 m	8 - 15 m	blue	initially broadly round
	Phellodendron amurense	10 - 12 m	10 - 12 m	greenish	spread out greatly
	Prunus avium 'Plena'	7 - 12 m	4 - 6 m	white	initially round crown
	Prunus sargentii	5 - 7 m	4 - 6 m	pink	initially conical
	Prunus serrulata 'Kanzan'	7 - 10 m	4 - 6 m	pink	initially funnel-shaped
	Prunus serrulata 'Shimidsu'	2 - 3 m	2 - 4 m	white	flatly umbrella-shaped
	Prunus subhirtella 'Fukubana'	2 - 4 m	2 - 4 m	pink	initially broadly funnel-shaped
	Quercus pontica	4 - 6 m	3 - 4 m	green-yellow	only hints of umbrella crown
	Rhus typhina	3 - 5 m	3 - 5 m	green	bizarre umbrella crown
	Robinia pseudoacacia 'Tortuosa'	12 - 15 m	6 - 8 m	white	bizarre, somewhat umbrella-shaped
	Sophora japonica 'Pendula'	5 - 8 m	5 - 8 m		overhanging umbrella
	Sorbus serotina	5 - 10 m	5 - 8 m	white	initially conical
	Sorbus vilmosinii	3 - 6 m	3 - 5 m	white	funnel to umbrella crown
	Zelkova serrata	8 - 12 m	8 - 12 m	inconspicuous	broadly extended, vase-shaped

2. Conifers	Genus/species/variety	Height	Width	Flower colour	Habit development
	Arucaria araucana	5 - 7 (10) m	3 - 4 m	inconspicuous	flattened when old
	Cedrus libani	15 - 20 m	6 - 15 m	inconspicuous	flat like a board
	Pinus densiflora 'Pumila'	2 - 3 m	1,5 - 2,5 m	inconspicuous	compact umbrella crown
	Pinus nigra austriaca	20 - 25 m	6 - 10 m	inconspicuous	flattened when old
	Pinus sylvestris	10 - 30 m	5 - 10 m	inconspicuous	asymmetrically umbrella-shaped
	Pinus sylvestris 'Norske Typ'	8 - 12 m	6 - 8 m	inconspicuous	unregelmäßig schirmförmig

9 Draping plants

Plants with overhanging, draping shoots are occasionally sought out for special beds, such as those on along tops of walls and stairways, in pots on balconies, on embankments or in roof gardens as overhanging curtains. In exposed areas, sensitivities typical of the species can turn into true weaknesses. Plants in such areas are more sensitive to heat, drought, and frost and thus more susceptible to pests. The length of the draping is only reached under optimal conditions and are not comparable to the shrub size the plant would reach in a bed on level ground.

Note

The plants are planted diagonal to the slope, not upright as in normal beds.

Genus/species/variety	Length of draping	Genus/species/variety	Length of draping
1. Deciduous plants			
Buddleja alternifolia	2 - 3 m	Cytisus kewensis	0,5 - 1 m
Betula pendula 'Youngii'	3 - 5 m	Daphne cneorum	0,3 - 0,5 m
Cotoneaster dammeri 'Cardinal'	0,5 - 1,2 m	Deutzia kalmiflora	0,5 - 1 m
Cotoneaster dammeri 'Coral Beauty'	1,2 - 2 m	Euonymus fortunei 'Coloratus'	0,8 - 1,5 m
Cotoneaster dammeri radicans	0,5 - 0,7 m	Euonymus fortunei 'Dart's Blanket'	1 - 2 m
Cotoneaster dammeri 'Skogholm'	2 - 5 m	Euonymus fortunei radicans	0,8 - 1,5 m
Cotoneaster dammeri 'Winterjuwel'	1,2 - 2 m	Forsythia 'Lynwood'	2 - 3 m
Cytisus beanii	0,5 - 0,8 m	Forsythia 'Spectabilis'	2 - 3 m
Cytisus decumbens	0,3 - 0,5 m	Forsythia suspensa fortunei	3 - 5 m
		Jasminum nudiflorum	2 - 5 m



Draping plants 9

Genus/species/variety	Length of draping	Genus/species/variety	Length of draping
Lespedeza thunbergii	2 - 4 m	2. Climbers	
Lycium barbarum	3 - 4 m	Akebia quinata	1 - 2 m
Potentilla 'Goldfinger'	0,3 - 0,8 m	Aristolochia macrophylla	2 - 3 m
Potentilla 'Goldstar'	0,3 - 0,5 m	Celastrus orbiculatus	2 - 3 m
Potentilla 'Goldteppich'	0,3 - 0,8 m	Clematis in species und varieties	1 - 3 m
Prunus subhirtella 'Pendula'	2 - 3 m	Hedera colchica	1 - 2 m
Pyrus salicifolia	2 - 3 m	Hedera helix	2 - 5 m
Pyrus salicifolia 'Pendula'	2 - 3 m	Hydrangea petiolaris	1 - 2 m
Rosa - Ground Covering Roses	0,5 - 2 m	Jasminum nudiflorum	2 - 5 m
Rosa arvensis	1 - 2 m	Lonicera in species und varieties	1 - 3 m
Rosa multibracteata	1 - 1,5 m	Parthenocissus quinquefolia in varieties	4 - 6 m
Rosa multiflora	1,2 - 3 m	Polygonum aubertii	2 - 3 m
Rubus caesius	1 - 3 m	Rosa - Climber Roses	1 - 2 m
Rubus calycinoides	0,5 - 1 m	Rubus fruticosus	1 - 2 m
Rubus fruticosus	2 - 3 m	Rubus henryi	1 - 2 m
Salix caprea 'Pendula'	1 - 2 m	Vitis coignetiae	2 - 4 m
Salix purpurea 'Pendula'	1 - 2 m		
Spiraea thunbergii	0,5 - 1,2 m	3. Conifers	
Spiraea trilobata	1 - 1,5 m	Cedrus atlantica 'Glauca Pendula'	2 - 4 m
Spiraea vanhouttei	1 - 1,5 m	Cedrus deodara 'Pendula'	2 - 3 m
Stephanandra incisa 'Crispa'	0,5 - 1,5 m	Juniperus communis 'Hornibrookii'	0,5 - 1 m
Symphoricarpos chenaultii 'Hancock'	1 - 3 m	Juniperus communis 'Repanda'	0,5 - 1 m
Tamarix parviflora	1 - 2 m	Juniperus horizontalis 'Prince of Wales'	1 - 1,5 m
Vaccinium macrocarpon	0,3 - 0,8 m	Juniperus horizontalis 'Wiltonii'	0,5 - 1 m
		Juniperus sabina 'Tamariscifolia'	0,5 - 1 m
		Taxus baccata 'Repandens'	0,3 - 0,5 m
		Tsuga canadensis 'Pendula'	1 - 2 m

Overhanging crown/weeping forms 10

As a rule, the hanging varieties are specimens, i.e. plants that stand alone as they are useful for impressive plant imagery. They are troublesome when planted incorrectly, such as in traffic zones.

Their special crowns require sufficient space from other partners their size or larger. Plant partners have to subordinate their development lest the hanging varieties lose their characteristic effects. Underplanting is difficult due to the shade; robust, shade-tolerant shrubs or perennials are recommended.

1. Deciduous plants	Genus/species/variety	Height	Width	Habit development / special characteristics
	Acer saccharinum 'Wieri'	12 - 15 m	6 - 15 m	branches and twigs asymmetrically overhanging
	Betula pendula 'Darlecarlica'	15 - 20 m	6 - 8 m	branches and twigs loosely overhanging
	Betula pendula 'Tristis'	10 - 22 m	6 - 8 m	twigs draping
	Betula pendula 'Youngii'	5 - 7 m	3 - 5 m	umbrella crown, twigs hanging to the ground
	Caragana arborescens 'Pendula'	1 - 3 m	1 - 1,5 m	twigs draping
	Cotoneaster dammeri 'Skogholm'	1 - 1,5 m	1,5 - 2 m	draping 3 - 5 m
	Cotoneaster watereri 'Pendulus'	2 - 3 m	1 - 2 m	twigs draping
	Fagus sylvatica 'Pendula'	15 - 20 m	15 - 20 m	main branches arching, twigs draped
	Fagus sylvatica 'Purple Fountain'	7 - 11 m	4 - 5 m	loosely overhanging
	Fagus sylvatica 'Purpurea Pendula'	8 - 12 m	4 - 6 m	arching overhanging
	Forsythia suspensa fortunei	2 - 3 m	2 - 3 m	twigs draping
	Fraxinus excelsior 'Pendula'	8 - 10 m	6 - 8 m	umbrella crown, twigs draping
	Prunus serrulata 'Kiku-shidare-zakura'	4 - 6 m	3 - 4 m	bell-shaped crown, twigs hanging limply
	Pyrus salicifolia	4 - 7 m	3 - 4 m	loosely overhanging branches, twigs draped
	Rosa - Tree Roses	1 - 1,5 m	1 - 1,5 m	twigs draping





10 Overhanging crown/weeping forms

1. Deciduous plants	Genus/species/variety	Height	Width	Habit development / special characteristics
	Salix acutifolia 'Pendulifolia'	4 - 6 m	4 - 6 m	funnel crown, twigs liting
	Salix caprea 'Pendula'	1 - 2 m	1 - 2 m	bell-shaped crown, twigs draped
	Salix alba 'Tristis'	15 - 20 m	12 - 15 m	branches and twigs draped
	Salix purpurea 'Pendula'	0,5 - 1 m	1 - 2 m	grows normally upright when cut radically
	Sophora japonica 'Pendula'	5 - 8 m	5 - 8 m	twigs draping
	Ulmus glabra 'Pendula'	3 - 5 m	6 - 10 m	branches horizontal, twigs liting
2. Conifers	Genus/species/variety	Height	Width	Habit development / special characteristics
	Cedrus atlantica 'Glauca Pendula'	5 - 8 m	5 - 8 m	crown asymmetrically extended
	Cedrus deodara 'Pendula'	3 - 5 m	3 - 5 m	asymmetrical umbrella crown, twigs draped
	Chamaecyparis nootkatensis 'Pendula'	8 - 12 m	3 - 5 m	crown asymmetrically conical twigs draped
	Larix kaempferi 'Pendula'	7 - 10 m	2 - 3 m	crown asymmetrically conical, top and branches arching
	Picea abies 'Inversa'	5 - 8 m	1 - 2 m	columnar, top, branches and twigs draped
	Picea breweriana	10 - 15 m	4 - 6 m	not weeping, conical crown, branches horizontal twigs draped
	Picea omorika 'Pendula'	8 - 10 m	1 - 2 m	branches dense, twisted hanging
	Picea orientalis 'Nutans'	8 - 12 m	5 - 7 m	branches in various directions
	Taxus baccata 'Dovastoniana'	2 - 6 m	4 - 8 m	trained flat: twigs liting, trained upright: twigs hanging
	Taxus baccata 'Dovastonii Aurea'	3 - 5 m	2 - 5 m	branches horizontal, twigs overhanging
	Tsuga canadensis 'Pendula'	3 - 4 m	3 - 4 m	compact and squat

11 Fast growing plants

Plants are not fast-growing for their entire lifespan but rather only for a limited period. Some species grow very little in the first 5 years and then begin to grow strongly for the next 10-20 years; others immediately develop very long yearly shoots after planting only to stagnate growth afterwards. There are no set rules as to when a species should be considered fast-growing. The growth rate depends on soil conditions: heavy, nutritious, fresh to moist soil increases growth. The rate of growth should be seen in the context of similar species of the same genus or categories of use.

Fast growth often means: large-pore wood, short-lived elasticity with increasing brittleness and early signs of ageing. Extremely fast-growing plants are also known to be the very shortest-lived species. It does not pay to treat such plants surgically after large branches have broken off or the stem has been wounded. In high traffic areas, damaged plants should be removed quickly. If a damaged plant is in a low traffic area and its not a danger or hindrance, fungi, insects, birds, small animals, etc. should be allowed to settle around it in the interest of preserving the biological cycle.

Note: Only the length of the yearly shoots are listed; for the slow growth when old, see the individual listings. The brittleness only concerns older trees, not young plants still growing!

1. Deciduous plants	Genus/species/variety	Yearly shoots	Life expectancy	Brittleness
	Acer freemanii varieties	80 - 120 cm	40 - 80 years	moderate
	Acer ginnala	30 - 50 cm	25 - 30 years	low
	Acer negundo varieties	100 - 150 cm	30 - 50 years	very high
	Acer platanoides varieties	80 - 120 cm	70 - 120 years	low
	Acer pseudoplatanus varieties	80 - 130 cm	150 - 400 years	none
	Acer saccharinum varieties	80 - 120 cm	40 - 80 years	very high
	Ailanthus altissima	80 - 200 cm	40 - 90 years	great
	Alnus incana	30 - 60 cm	40 - 50 years	moderate
	Alnus spaethii	50 - 100 cm	50 - 70 years	moderate
	Betula maximowicziana	60 - 80 cm		low
	Betula nigra	60 - 90 cm	50 - 75 years	withitel
	Betula papyrifera	45 - 70 cm	60 - 75 years	low
	Betula pendula	60 - 90 cm	70 - 100 years	great
	Cornus alba	80 - 150 cm	20 - 30 years	low
	Cornus stolonifera 'Flaviramea'	80 - 150 cm	20 - 30 years	none
	Cotoneaster dammeri 'Skoghholm'	80 - 150 cm	20 - 30 years	none



Fast growing plants 11

1. Deciduous plants	Genus/species/variety	Yearly shoots	Life expectancy	Brittleness
	Forsythia intermedia varieties	80 - 120 cm	25 - 40 years	low
	Fraxinus americana varieties	60 - 80 cm		low
	Fraxinus excelsior	80 - 100 cm	150 - 250 years	none
	Fraxinus excelsior varieties	60 - 80 cm		
	Gleditsia triacanthos varieties	60 - 100 cm	100 - 125 years	great
	Juglans nigra	60 - 90 cm	150 - 250 years	low
	Liquidambar styraciflua	45 - 80 cm	150 - 300 years	none
	Liriodendron tulipifera	45 - 80 cm	125 - 175 years	very high
	Malus tschonoskii	30 - 50 cm	50 - 75 years	low
	Morus nigra	60 - 80 cm	50 - 75 years	great
	Paulownia tomentosa	100 - 200 cm	40 - 60 years	great
	Phyllostachys species and varieties	300 - 500 cm	70 - 90 years	none
	Platanus acerifolia	60 - 80 cm	150 - 250 years	low
	Platanus acerifolia 'Tremonia'	60 - 80 cm		low
	Populus alba varieties	80 - 120 cm	150 - 300 years	great
	Populus balsamifera	100 - 150 cm	60 - 75 years	very high
	Populus berolinensis	60 - 100 cm	60 - 80 years	very high
	Populus canadensis 'Robusta'	80 - 100 cm	60 - 80 years	very high
	Populus canadensis 'Robusta'	100 - 150 cm	50 - 70 years	very high
	Populus nigra	100 - 120 cm	60 - 80 years	very high
	Populus simonii	60 - 80 cm	30 - 50 years	very high
	Populus tremula	60 - 80 cm	30 - 50 years	very high
	Prunus avium	50 - 60 cm	60 - 80 years	withitel
	Prunus serotina	45 - 75 cm	125 - 175 years	low
	Quercus coccinea	45 - 60 cm	200 - 300 years	low
	Quercus rubra	45 - 65 cm	150 - 300 years	low
	Quercus palustris	60 - 75 cm	125 - 175 years	low
	Rhus glabra	60 - 90 cm	15 - 30 years	great
	Rhus typhina	80 - 150 cm	30 - 50 years	very high
	Robinia pseudoacacia varieties	60 - 150 cm	75 - 100 years	great
	Salix species and varieties	50/100/150 cm	20 - 100 years	very high
	Sambucus canadensis	80 - 120 cm	15 - 20 years	great
	Sophora japonica 'Regent'	60 - 80 cm	50 - 100 years	great
	Sorbus aucuparia	50 - 80 cm	30 - 80 years	moderate
	Symphoricarpos chenaultii 'Hancock'	80 - 120 cm	25 - 40 years	none
	Tilia americana 'Nova'	45 - 60 cm	100 - 150 years	great
	Tilia europaea 'Pallida'	40 - 70 cm	200 - 300 years	moderate
	Tilia flavescens 'Glenleven'	45 - 80 cm		great
	Ulmus carpinifolia	40 - 80 cm	150 - 200 years	low
	Ulmus 'Sapporo Autumn Gold'	60 - 80 cm	80 - 100 years	low
	Zelkova serrata 'Green Vase'	60 - 80 cm		low
2. Climbers	Genus/species/variety	Yearly shoots	Life expectancy	Brittleness
	Actinidia arguta	150 - 300 cm		low
	Actinidia chinensis	100 - 120 cm		none
	Akebia quinquefolia	80 - 150 cm		none
	Aristolochia macrophylla	150 - 200 cm		none
	Campsis radicans	150 - 300 cm		low
	Celastrus orbiculatus	70 - 300 cm		low
	Clematis vitalba	150 - 300 cm		low
	Lonicera henryi	100 - 300 cm		none
	Lonicera tellmanniana	80 - 150 cm		none
	Parthenocissus quinquefolia varieties	90 - 120 cm		low
	Parthenocissus tricuspidata 'Veitchii'	100 - 250 cm		none
	Polygonum aubertii	150 - 500 cm		low
	Rosa - Climbing Roses	120 - 250 cm		none
	Vitis coignetiae	150 - 300 cm		low
	Wisteria floribunda	100 - 300 cm		low
	Wisteria sinensis	150 - 400 cm	100 - 150 years	moderate
3. Conifers	Genus/species/variety	Yearly shoots	Life expectancy	Brittleness
	Larix decidua	40 - 70 cm	400 - 600 years	none
	Larix kaempferi	50 - 100 cm	200 - 300 years	low
	Metasequoia glyptostroboides	80 - 120 cm	50 - 400 years	moderate
	Pinus banksiana	60 - 90 cm	40 - 60 years	great
	Pinus nigra austriaca	60 - 90 cm	300 - 500 years	none
	Pinus strobus	50 - 70 cm	150 - 250 years	low
	Thuja occidentalis	35 - 60 cm	200 - 400 years	great





12 Conspicuously flowering trees and shrubs

Note:

Most trees flower only after they have reached a certain age and most begin to form flowers only after 10-15 years, i.e. if you do not want to wait years for flowers you will have to plant large specimen.

Only the main colours are listed; for colour nuances, see the detailed descriptions.

1. Large trees	Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
	Acer platanoides varieties	yellow	F	IV
	Aesculus hippocastanum	white		V
	Betula maximowicziana	catkins		III-IV
	Castanea sativa	white	(F)	VI/VII
	Liriodendron tulipifera varieties	yellow		VI
	Robinia pseudoacacia varieties	white	F	V/VIII
	Tilia cordata	yellow	F	VI
	Tilia platyphyllos varieties	yellow	F	V/VII
	Tilia tomentosa varieties	yellow	F	VII
	Tilia europaea varieties	yellow	F	VI

2. Medium-size trees	Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
	Acer freemanii 'Armstrong'	red	F	III-IV
	Acer platanoides varieties	yellow	F	IV
	Acer rubrum varieties	red	F	III/IV
	Aesculus flava 'Vestita'	yellow		V-VI
	Aesculus hippocastanum varieties	white, double		V
	Alnus spaethii	catkins		II/III
	Betula ermanii	catkins		IV
	Betula maximowicziana	catkins		III-IV
	Betula jaquemontii	catkins		IV
	Corylus colurna	yellow		III/IV
	Davidia involucrata vilmoriniana	white		V-VI
	Euodia hupehensis	white	(F)	VII/VIII
	Gleditsia triacanthos varieties	white	f	VI/VII
	Gymnocladus dioica	white	f	VI
	Magnolia grandiflora 'Blanchard'	white	F	VII-VIII
	Paulownia tomentosa	blue	f	IV
	Prunus avium	white	F	IV/V
	Pyrus calleryana varieties	white	(F)	IV/V
	Pyrus communis	white	(F)	IV
	Robinia pseudoacacia varieties	white	F	V/VIII
	Sophora japonica varieties	white		VII/VIII
	Sorbus aucuparia varieties	white	(F)	V
	Sorbus domestica	white	(F)	V-VI
	Sorbus intermedia	white	(F)	V-VI
	Sorbus torminalis	white	(F)	V-VI
	Tilia americana 'Nova'	yellow	F	VII
	Tilia cordata varieties	yellow	F	VI
	Tilia euclora	yellow	F	VI
	Tilia flavescens 'Glenleven'	yellow	F	VI/VII
	Tilia henryana	yellow	F	VII-IX

3. Small trees

Small trees have two basic types:

- single-stem standards and

- multi-stem, short-stem specimen that exceed the category „large shrubs“ in size (cf. individual descriptions)

	Acer ginnala	greenish white		V
	Acer rubrum varieties	red	F	III/IV
	Aesculus carnea 'Briotii'	red		V
	Amelanchier laevis	white		IV
	Amelanchier lamarckii varieties	white		IV
	Aralia elata varieties	white		VIII/IX

Explanation of symbols: F = pleasant, somewhat strong fragrance / (F) = pungent, somewhat unpleasant scent
f = slight fragrance / I-XII = Month of flowering (January to December)



Conspicuously flowering trees and shrubs 12

3. Small trees

Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
Betula albosinensis	catkins		IV
Catalpa bignonioides varieties	white		VII
Cercis siliquastrum	pink	F	IV
Clerodendron trichotomum fargesii	white	F	VII/IX
Cornus alternifolia	white		VI
Cornus controversa	white		VI
Cornus florida varieties	white		V
Cornus florida rubra	pink		VI
Cornus kousa varieties	white		VI
Cornus nuttallii varieties	white		V-VI, VIII
Crataegus laevigata	white	(F)	V
Crataegus laevigata 'Paul's Scarlet'	pink, double		V-VI
Crataegus lavallei 'Carrierei'	white	(F)	VI
Crataegus monogyna varieties	pink	(F)	V
Crataegus coccinea	white	(F)	V
Crataegus crus galli	white		V
Davidia involucrata vilmoriniana	white		V-VI
Elaeagnus angustifolia	silver-yellow	F	VI
Euodia hupehensis	white	(F)	VII/VIII
Fraxinus ornus varieties	white	F	VI(VII)
Halesia carolina	white		IV/V
Koeleruteria paniculata	yellow		VIII
Laburnum anagyroides	yellow	F	V
Laburnum watereri 'Vossii'	yellow	F	V
Lonicera maackii	white	F	V-VI
Magnolia kobus	white	F	IV/V
Magnolia loebneri varieties	white, pink	F	IV(V)
Magnolia soulangiana varieties	pink	F	IV
Malus floribunda	pink-white	F	V
Malus sylvestris	white	F	IV/V
Malus toringo sargentii, seedling	white	F	V
Malus tschonoskii	white	F	V
Malus varieties	white, pink, red	F	V
Parrotina persica	orange		III/IV
Prunus avium 'Plena'	white, double	F	IV
Prunus cerasifera varieties	pink		IV
Prunus fruticosa 'Globosa'	white		IV
Prunus gondouinii 'Schnee'	white	f	IV/V
Prunus hillieri 'Spire'	pink		IV
Prunus maackii varieties	white		V
Prunus padus varieties	pink	(F)-F	IV/V
Prunus sargentii	pink	(F)	IV
Prunus schmittii	pink-white		IV/V
Prunus serotina	white		VI
Prunus subhirtella varieties	pink, double		IV
Prunus yedoensis	white	F	IV
Pyrus calleryana varieties	white	(F)	IV
Pyrus communis varieties	white	(F)	IV/V
Pyrus regelia	white	(F)	IV
Robinia 'Casque Rouge'	crimson-red	f	VI
Robinia pseudoacacia varieties	white	F	VI
Salix caprea varieties	catkins	F	III/IV
Salix daphnoides varieties	catkins	F	II/III
Salix smithiana	catkins	F	III/IV
Sorbus americana	white	(F)	V-VI
Sorbus aria varieties	white	(F)	V
Sorbus arnoldiana	white	(F)	V
Sorbus aucuparia varieties	white	(F)	V
Sorbus decora	white	(F)	V-VI
Sorbus 'Joseph Rock'	white		V
Sorbus torminalis	white	(F)	V-VI
Stewartia pseudocamellia	white		VII/VIII
Tilia mongolica	yellow	F	VI-VII

Explanation of symbols: F = pleasant, somewhat strong fragrance / (F) = pungent, somewhat unpleasant scent
f = slight fragrance / I-XII = Month of flowering (January to December)





12 Conspicuously flowering trees and shrubs

4. Large shrubs

Genus/species/variety	Flower colour /	Fragrance	Flowering time
Acer ginnala	greenish white		.V
Aesculus parviflora	white		.VII/VIII
Amelanchier laevis	white	.f	.IV/V
Amelanchier lamarkii	white		.IV
Amelanchier 'Ballerina'	white		
Aralia elata varieties	white		.VIII/IX
Berberis julianae	.yellow	(.F)	.V
Berberis ottawensis varieties	.yellow	(.F)	.V
Buddleja davidii varieties	white, pink	.F	.VIII/IX
Caragana arborescens	.yellow		.V
Cercis siliquastrum	.pink, carmine		.IV
Chionanthus virginicus	white		.VI
Clerodendron trichotomum fargesii	white	.F	.VII/VIII
Cornus alternifolia	white	(.F)	.VVI
Cornus controversa	white		.VVI
Cornus florida varieties	white		.V
Cornus florida rubra	.pink		.VVI
Cornus kousa varieties	white, pink		.VI
Cornus mas	.yellow		.III
Cornus nuttallii varieties	white		.VVI, VIII
Cornus officinalis	.yellow		.II-III
Cornus sanguinea	white	(.F)	.VVI
Corylus avellana	.catkins		.III
Corylus avellana 'Rotblättrige Zellerneuß'	.catkins		.III
Corylus maxima 'Purpurea'	.catkins		.III
Cotinus coggygria varieties	greenish white		.VI
Cotoneaster bullatus	white	(.F)	.V
Cotoneaster watereri 'Cornubia'	white	(.F)	.V
Crataegus laevigata	white	(.F)	.V
Crataegus laevigata 'Paul's Scarlet'	.pink-red		.VVI
Crataegus lavalleyi 'Carrieri'	white	(.F)	.VI
Crataegus monogyna	white	(.F)	.VVI
Crataegus coccinea	white	(.F)	.V
Deutzia magnifica	white		.VVI
Deutzia scabra varieties	.pink-white		.VVI
Elaeagnus angustifolia	.silvery-yellow		.VVI
Elaeagnus commutata	.silvery-yellow		.V
Forsythia intermedia varieties	.yellow		.II/IV
Halesia carolina	white		.IV/V
Hamamelis intermedia varieties	.yellow, orange, red	.F	.XII/II/III/IV
Hamamelis japonica	.yellow	.F	(.II)/III
Hamamelis mollis varieties	.yellow, orange	.F	.XII/II/III
Hamamelis virginiana	.yellow	.f	.XI/XII
Heptacodium miconioides	white	.F	.VIII-X
Laburnum anagyroides	.yellow		
Laburnum watereri 'Vossii'	.yellow	.f	.V
Lonicera maackii	.white-light-yellow	.F	.VVI
Magnolia liliiflora varieties	.crimson pink		.IV
Magnolia loebneri varieties	white	.F	.IV/V
Magnolia sieboldii	white	.F	.VI/VII
Magnolia soulangiana varieties	.pink-white	.F	.IV/V
Magnolia stellata varieties	white, pink	.F	.IV/V
Malus varieties	white, pink, red	.F	.V
Malus toringo sargentii, seedling	white	.F	.V
Mespilus germanica	white		.VVI
Parrotia persica	.orange		.III/IV
Philadelphus inodorus grandiflorus	white		.VVI
Philadelphus 'Virginal'	white	.F	.VVI
Photinia villosa	white	(.F)	.VI
Prunus cerasifera varieties	.pink		.IV
Prunus laurocerasus varieties	white	(.F)	.V/VI/VII
Prunus lusitanica	white	(.F)	.VI
Prunus padus	white	(.F)-F	.IV

Explanation of symbols: F = pleasant, somewhat strong fragrance / (F) = pungent, somewhat unpleasant scent
f = slight fragrance / I-XII = Month of flowering (January to December)



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4. Large shrubs

Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
Prunus padus 'Watereri'	white	(.F)-F	.IVV
Prunus sargentii	.pink	.f	.IV
Prunus 'Accolade'	.pink	.f	.IV
Prunus serotina	white		.VI
Prunus serrulata varieties	.pink		.IV/V
Prunus serrulata 'Kiku-shidare-zakura'	.dark pink		.V
Prunus subhirtella 'Autumnalis'	white		.X/IV
Prunus subhirtella 'Autumnalis Rosea'	.pink, crimson		.X/IV
Prunus subhirtella varieties	.pink		.III/IV
Prunus yedoensis	white	.f	(.II)/IV
Ptelea trifoliata	.yellow-green	.f	.VI
Pyracantha hybrids	white	(.F)	.V/VI
Rhododendron species and varieties	.all		.III/VI
Robinia hispida varieties	.pink	.F	.VI
Rosa species and varieties	.all	.F	.V
Salix acutifolia 'Pendulifolia'	.catkins	.f	(.I/II)/III
Salix aurita	.catkins	.f	.II/IV
Salix caprea varieties	.catkins	.f	(.I)/III
Salix cinerea	.catkins	.f	.III/IV
Salix daphnoides 'Praecox'	.catkins	.f	(.XII)/III
Salix sachalinensis 'Sekka'	.catkins	.f	.IV
Salix smithiana	.catkins	.f	.III/IV
Salix viminalis	.catkins	.f	.III/IV
Sambucus canadensis varieties	white	(.F)	.VI/VII
Sambucus nigra	white	(.F)	.VI/VII
Sorbus koehneana	white	(.F)	.VVI
Sorbus vilmorinii	white	(.F)	.VVI
Staphylea colchica	white	.f	.V
Stewartia pseudocamellia	white		.VII/VIII
Styrax japonicus	white	.F	.VI-VII
Styrax obassia	white	.F	.VI-VII
Syringa chinensis varieties	.purple-pink	.F	.IV/V
Syringa hyacinthiflora varieties	.pink, crimson	.F	.IV/V
Syringa josikaea	.violet	(.F)	.V/VI
Syringa prestoniae	.crimson-red	(.F)	.V
Syringa reflexa	.pink	(.F)	.VI/VII
Syringa swegiflexa	.carmine pink	(.F)	.VI/VII
Syringa vulgaris	.purple		.V
Syringa vulgaris-hybrids	.blue, purple, white, red, pink violet, double	.F	.V
Tamarix parviflora	.pink		.VVI
Viburnum lantana	white	(.F)	.V
Viburnum opulus	white		.VVI
Viburnum opulus 'Roseum'	white		.VVI
Viburnum rhytidophyllum	white	(.F)	.V

5. Normal shrubs

Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
Amelanchier ovalis	white	(.F)	.V
Aronia melanocarpa 'Viking'	white		.IV/V
Berberis julianae	.yellow	(.F)	.V
Berberis ottawensis varieties	.yellow	(.F)	.V
Berberis stenophylla	.yellow	(.F)	.V
Berberis thunbergii varieties	.yellow	(.F)	.V
Berberis vulgaris	.yellow	(.F)	.V
Buddleja alternifolia	.purple	(.F)-F	.VI
Buddleja davidii varieties	.purple-blue, red, violet, white	(.F)-F	.VI/IX
Calycanthus floridus	.redbraun	.F	.VVI
Chaenomeles hybrids	white, pink, orange, red		.IV/V
Chaenomeles speciosa	.red-orange		.III/IV
Clethra alnifolia	white	.F	.VII/IX
Colutea arborescens	.yellow		.V/IX
Corylopsis spicata	light-yellow	.F	.IV

Explanation of symbols: F = pleasant, somewhat strong fragrance / (F) = pungent, somewhat unpleasant scent
f = slight fragrance / I-XII = Month of flowering (January to December)





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5. Normal shrubs	Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
	Cotinus coggygria 'Royal Purple'	pink		VI
	Cotoneaster acutifolius	white-pink	(F)	IV/V
	Cotoneaster multiflorus	white	(F)	V
	Cotoneaster sternianus	white	(F)	V/VI
	Cytisus scoparius varieties	yellow	(F)	V/VI
	Cytisus hybrids varieties	yellow, pink, red	(F)	V/VI
	Deutzia hybrida 'Mont Rose'	pink		V/VI
	Deutzia kalmiflora	light pink		V/VI
	Deutzia lemoinae	white		V
	Elaeagnus multiflora	light yellow	F	V
	Enkianthus campanulatus	red-green		III/IV
	Forsythia 'Lynwood'	yellow		IV/V
	Forsythia suspensa fortunei	yellow		IV/V
	Fothergilla major	white	F	IV/V
	Hamamelis intermedia varieties	yellow, orange, red	F	XII/II/III/IV
	Hibiscus syriacus varieties	blue, purple, red, white		VI/X
	Holodiscus discolor arifolius	white		VI
	Hydrangea macrophylla varieties	blue, red, white		VII/VIII
	Hydrangea paniculata varieties	white, pink		VII/X
	Hydrangea sargentiana	white, light pink		VII/VIII
	Kalmia latifolia	carmine pink		V/VI
	Kerria japonica 'Pleniflora'	yellow		IV/V
	Kolkwitzia amabilis	pink		VI
	Lespedeza thunbergii	crimson-pink		IX/X
	Lonicera korolkowii zabelii	pink	F	VI
	Lonicera ledebourii	yellow		V/VI
	Lonicera tatarica varieties	pink, white		V/VI
	Lonicera xylosteum	white, light yellow	F	V
	Magnolia liliflora varieties	pink, white		IV/VI
	Magnolia stellata varieties	white, pink	F	IV
	Mahonia bealei	yellow	F	II/III
	Malus toringo sargentii, grafted	white	F	IV
	Osmanthus heterophyllus	white	F	IX/X
	Philadelphus coronarius	white	F	V/VI
	Philadelphus hybrid varieties	white	F	V/VI
	Photinia fraseri 'Red Robin'	white	(F)	V/VI
	Physocarpus opulifolius	pink-white		V/VI
	Pieris japonica varieties	white, pink		(III)IV/V
	Prunus kurilensis 'Brilliant'	white		III/IV
	Prunus laurocerasus varieties	white	(F)	V/VI/IX
	Prunus serrulata 'Shimidsu'	pink-white		V
	Prunus spinosa	white	f	IV
	Prunus triloba	pink, double		IV
	Pyracantha hybrids varieties	white	(F)	V/VI
	Rhododendron species and varieties	all	F (some)	III/VI
	Ribes aureum	yellow	F	IV/V
	Ribes sanguineum varieties	carmine-red	(F)	IV
	Pink species and varieties	all	F (some)	V/XI
	Rubus odoratus	red	f	VI/VIII
	Salix aurita	catkins	f	IV
	Sorbaria sorbifolia	white		V/VI
	Spiraea arguta	white	(F)	IV/V
	Spiraea cinerea 'Grefsheim'	white	(F)	IV/V
	Spiraea nipponica varieties	white		V/VII
	Spiraea vanhouttei	white	(F)	V
	Tamarix ramosissima	pink		VII/IX
	Viburnum bodnantense 'Dawn'	pink	F	IX/IV
	Viburnum burkwoodii	pink-white	F	IV/V
	Viburnum carlcephalum	white	F	V
	Viburnum farreri	pink-white	F	(X)III/IV
	Viburnum plicatum varieties	white		V/VI
	Viburnum 'Pragensis'	white	f	V
	Weigela hybrid varieties	pink, red		V/VIII
	Weigela florida varieties	pink, red		V/VI

Explanation of symbols: F = pleasant, somewhat strong fragrance / (F) = pungent, somewhat unpleasant scent
f = slight fragrance / I-XII = Month of flowering (January to December)



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6. Small shrubs	Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
	Acanthopanax sieboldianus	greenish white		VI/VII
	Aronia melanocarpa	white	(F)	V
	Berberis - evergreen species and varieties	yellow	(F)	V/VI
	Caryopteris species and varieties	blue	f	VIII/IX
	Ceanothus delilianus 'Gloire de Versailles'	blue		VII/XI
	Ceanothus pallidus 'Marie Simon'	pink		VII/X
	Chaenomeles japonica	orange-red		III/IV
	Chaenomeles hybrids	white, red		(III)IV/V
	Corylopsis pauciflora	yellow	F	(I)III/IV
	Cotoneaster sternianus	white	(F)	V
	Cytisus nigricans varieties	yellow	f	VII/VIII
	Cytisus scoparius varieties	yellow, red, brown		V/VI
	Daphne burkwoodii 'Somerset'	pink-white	F	V
	Daphne mezereum varieties	carmine, white	F	(I)III/IV
	Deutzia gracilis	white		V/VI
	Deutzia rosea	pink-white		V
	Elaeagnus ebbingei	white	F	IX/XI
	Exocorda macrantha 'The Bride'	white	f	V/VI
	Forsythia ovata 'Tetragold'	light yellow		III
	Fothergilla gardenii	white	F	IV/V
	Fothergilla major	white	F	IV/V
	Genista tinctoria	yellow		VII/VIII
	Hydrangea arborescens varieties	greenish white, white		VI/VIII
	Hydrangea macrophylla	blue, red, white		VII/VIII
	Hydrangea quercifolia	white		VI/VIII
	Hydrangea serrata	crimson, purple, blue, pink		VII/VIII
	Hypericum 'Hidcote'	yellow		VI/IX
	Hypericum kalmianum varieties	yellow		VII/VIII
	Hypericum patulum henryi	yellow		VII/IX
	Kalmia angustifolia 'Rubra'	purple-pink		V(VII)
	Kalmia latifolia varieties	pink, red		V/VI
	Kerria japonica	yellow		IV/V
	Ledum palustre	white	F	V/VI
	Lespedeza thunbergii	purple-pink		IX/X
	Leucothoe walteri	white	f	V/VI
	Lonicera japonica repens	white-yellow	F	VI/VI
	Lonicera caerulea	white	f	IV/V
	Mahonia aquifolium varieties	yellow		IV(V)
	Paonia suffruticosa varieties	white, pink	f	V/VI
	Perovskia abredanoides	purple-blue	F	VIII/IX
	Philadelphus hybrid varieties	white	F	VI/VI
	Pieris floribunda	white	f	IV/V
	Pieris japonica varieties	white, pink		(III)IV/V
	Potentilla fruticosa varieties	yellow, white, pink, red		(V)VI/X
	Prunus cistena	pink		IV/V
	Prunus laurocerasus varieties	white		V/VI/IX
	Prunus tenella varieties	pink	f	IV/V
	Rhododendron species and varieties	all	F (some)	III/VI
	Rhodotypos scandens	white		V/VI
	Ribes sanguineum	carmine, red	(F)	IV/V
	Rosa species and varieties	all	F (some)	V/XI
	Salix caprea 'Pendula'	catkins	f	III/IV
	Salix hastata 'Wehrhahnii'	catkins	f	III/IV
	Salix helvetica	catkins	f	IV/V
	Salix lanata	catkins	f	III/IV
	Skimmia japonica varieties	white	F	V
	Spiraea betulifolia varieties	white		VI
	Spiraea bumalda varieties	carmine		VI/IX
	Spiraea japonica varieties	pink, carmine		VI/VII
	Spiraea nipponica varieties	white		V/VI
	Spiraea prunifolia	white		V
	Spiraea thunbergii	white	f	(III)IV
	Spiraea trilobata	white		V/VI

Explanation of symbols: F = pleasant, somewhat strong fragrance / (F) = pungent, somewhat unpleasant scent
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6. Small shrubs	Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
	Stephanandra tanakae	white		VI/VII
	Syringa meyeri 'Palibin'	crimson	f	V/VI
	Syringa microphylla 'Superba'	pink	(F)	V/VI(IX)
	Syringa patula 'Miss Kim'	pink	F	V/VI
	Ulex europaeus	yellow	f	IV/V
	Viburnum carlesii varieties	pink-white	F	(IV)V
	Viburnum plicatum varieties	white		VI/VII, X
	Viburnum tinus	white, pink	f	IX/IV
	Vinca major	blue		IV
7. Dwarf shrubs	Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
	Berberis thunbergii varieties	yellow	(F)	V
	Calluna vulgaris varieties	red, pink, white	f	VIII/IX
	Cornus canadensis	white		V/VII
	Cytisus beanii	yellow		V
	Cytisus decumbens	yellow		V
	Cytisus kewensis	cream white		V
	Cytisus purpureus	pink, white		V/VI
	Daboecia species and varieties	white, pink		VI/X
	Daphne cneorum	carmine pink	F	V/VI
	Deutzia gracilis	white		V
	Erica carnea varieties	pink, red, white	f	XI/II/IV
	Erica cinerea varieties	pink, red, carmine		VI/VIII
	Erica darleyensis	white, pink, red		XI/IV
	Erica tetralix varieties	white, pink, red		VII/IX
	Erica vagans varieties	pink, red		VII/IX
	Genista lydia	yellow		VI
	Genista radiata	yellow		VI
	Genista sagittalis	yellow		V/VI
	Genista tinctoria 'Plena'	yellow		VI
	Hebe ochracea	white		VII/VIII
	Hypericum moserianum	yellow		VII/IX
	Kalmia latifolia varieties	pink, red		V/VI
	Pernettya mucronata	white		V/VI
	Potentilla fruticosa varieties	yellow, pink, white, red		V/VI/IX
	Rhododendron species and varieties	all	F (some)	II/VI
	Rosa species and varieties	all	D (some)	V/IX
	Salix repens argentea	catkins	f	IV
	Spiraea betulifolia varieties	white		VI
	Spiraea decumbens	white		VI
	Spiraea japonica 'Albiflora'	white		VII/IX
	Spiraea japonica 'Little Princess'	pink		VI/VII
	Viburnum davidii	white	f	VI
	Vinca minor varieties	blue, purple, crimson		IV/V/VI
8. Semi Shrubs	Genus/species/variety	Flower colour / shape	Fragrance	Flowering time
	Ceanothus delilianus 'Gloire de Versailles'	blue	(F)	VII/IX
	Ceanothus pallidus 'Marie Simon'	pink		VII/IX
	Clematis texensis	pink		V/IX
	Cornus canadensis	white		V/VI
	Genista sagittalis	yellow		V/II
	Hypericum calycinum	yellow		VII/IX
	Hypericum moserianum	yellow		VII/IX
	Lavandula angustifolia varieties	blue, purple	F	VI/VII
	Lespedeza thunbergii	crimson pink		IX/X
	Pachysandra terminalis varieties	white		IV/V
	Perovskia abredanoides	purple-blue	F	VIII/IX
	Vinca minor	blue		IV/V(VII)
9. Climbers	see table no. 50; categories of climbers			

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Flowering times are not constants; they vary according to region and change depending on weather conditions, light, etc. Great delays and early starts can occur in spring and late autumn. Thus, some planned and hoped for colour combinations may not even appear. The flower duration and profusion of the various species also varies greatly and is dependent upon the weather.

1. Large trees	Flowering time	Genus/species/variety	Flower colour
	III/IV	Betula maximowicziana	catkins
	IV	Acer platanoides varieties	yellow
	IV	Acer saccharum	green
	V	Aesculus hippocastanum	white
	V/VII	Tilia platyphyllos varieties	yellow
	V/VIII	Robinia pseudoacacia varieties	white
	VI	Liriodendron tulipifera varieties	yellow
	VI	Tilia cordata	yellow
	VI	Tilia europaea varieties	yellow
	VI/VII	Castanea sativa	white
	VII	Tilia tomentosa varieties	yellow
2. Medium sized trees	Flowering time	Genus/species/variety	Flower colour
	II/III	Alnus spaethii	catkins
	III/IV	Acer freemanii varieties	red
	III/IV	Acer rubrum varieties	red
	III/IV	Betula maximowicziana	catkins
	III/IV	Corylus colurna	yellow
	IV	Acer platanoides varieties	yellow
	IV	Betula ermanii	catkins
	IV	Betula jaquemontii	catkins
	IV	Paulownia tomentosa	blue
	IV	Pyrus communis	white
	IV/V	Prunus avium	white
	IV/V	Pyrus calleryana varieties	white
	V	Aesculus hippocastanum varieties	white, double
	V/VI	Acer cappadocicum varieties	yellow, green
	V/VI	Sorbus aucuparia varieties	white
	V/VI	Davidia involucreta vilmoriniana	white
	V/VI	Sorbus domestica	white
	V/VI	Sorbus intermedia	white
	V/VI	Sorbus torminalis	white
	V/VIII	Robinia pseudoacacia varieties	white
	V/VI	Aesculus flava 'Vestita'	yellow
	VI	Gymnocladus dioica	white
	VI	Tilia cordata varieties	yellow
	VI	Tilia euchlora	yellow
	VI/VII	Gleditsia triacanthos varieties	white
	VI/VII	Magnolia grandiflora 'Blanchard'	white
	VI/VII	Tilia flavescens 'Glenleven'	yellow
	VII	Tilia americana 'Nova'	yellow
	VII/VIII	Euodia hupehensis	white
	VII/VIII	Sophora japonica varieties	white
	VII-IX	Tilia henryana	yellow
3. Small trees	Flowering time	Genus/species/variety	Flower colour
	II/III	Salix daphnoides varieties	catkins
	III/IV	Acer rubrum varieties	red
	III/IV	Parrotia persica	orange
	III/IV	Salix caprea varieties	catkins
	III/IV	Salix smithiana	catkins
	IV	Amelanchier laevis	white
	IV	Amelanchier lamarckii varieties	white
	IV	Betula albosinensis	catkins
	IV	Cercis siliquastrum	pink
	IV	Magnolia soulangiana varieties	pink
	IV	Prunus avium 'Plena'	white, double

Explanation of symbols: I-XII = Month of flowering (January to December)





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3. Small trees	Flowering time	Genus/species/variety	Flower colour
	IV	Prunus cerasifera varieties	pink
	IV	Prunus fruticosa 'Globosa'	white
	IV	Prunus hillieri 'Spire'	pink
	IV	Prunus sargentii	pink
	IV	Prunus serrulata varieties	silvery, pink, double
	IV	Prunus subhirtella varieties	pink, double
	IV	Prunus yedoensis	white
	IV	Pyrus calleryana varieties	white
	IV	Pyrus regelia	white
	IV(V)	Magnolia loebneri varieties	white, pink
	IVV	Acer monspessulanum	yellow, green
	IVV	Halesia carolina	white
	IVV	Magnolia kobus	white
	IVV	Malus sylvestris	white
	IVV	Prunus gondouinii 'Schnee'	white
	IVV	Prunus padus varieties	pink
	IVV	Prunus schmittii	pink-white
	IVV	Pyrus communis varieties	white
	IVV	Pyrus nivalis	white
	IVV	Pyrus salicifolia 'Pendula'	white
	V	Acer buergerianum	yellow
	V	Acer tataricum	green
	V	Acer ginnala	green-white
	V	Aesculus carnea 'Briotii'	red
	V	Cornus florida varieties	white
	V	Crataegus laevigata	white
	V	Crataegus monogyna varieties	pink
	V	Crataegus coccinea	white
	V	Crataegus crus galli	white
	V	Laburnum anagyroides	yellow
	V	Laburnum watereri 'Vossii'	yellow
	V	Malus floribunda	pink-white
	V	Malus varieties	white, pink
	V	Malus toringo sargentii, seedling	white
	V	Malus tschonoskii	white
	V	Prunus maackii varieties	white
	V	Sorbus aria varieties	white
	V	Sorbus arnoldiana	white
	V	Sorbus aucuparia varieties	white
	V	Sorbus 'Joseph Rock'	white
	VVI	Crataegus laevigata 'Paul's Scarlet'	pink, double
	VVI	Davidia involucreta vilmoriniana	white
	VVI	Lonicera maackii	white
	VVI	Sorbus americana	white
	VVI	Sorbus decora	white
	VVI	Sorbus torminalis	white
	VVI,VIII	Cornus nuttallii varieties	white
	V-VII	Prunus lusitanica varieties	white
	VI	Cornus alternifolia	white
	VI	Cornus controversa	white
	VI	Cornus florida rubra	pink
	VI	Cornus kousa varieties	white
	VI	Crataegus lavalley 'Carrierei'	white
	VI	Elaeagnus angustifolia	silver-yellow
	VI	Prunus serotina	white
	VI	Robinia 'Casque Rouge'	crimson-red
	VI	Robinia pseudoacacia varieties	white
	VI/VII	Styrax obassia	white
	VI/VII	Tilia mongolica	yellow
	VI(VI)	Fraxinus ornus varieties	white
	VII	Catalpa bignonioides varieties	white
	VII/X	Clerodendron trichotomum fargesii	white
	VII/VIII	Euodia hupehensis	white
	VII/VIII	Stewartia pseudocamellia	white

Explanation of symbols: I-XII = Month of flowering (January to December)



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3. Small trees	Flowering time	Genus/species/variety	Flower colour
	VIII	Koeleruteria paniculata	yellow
	VII/IX	Aralia elata varieties	white
4. Large shrubs	Flowering time	Genus/species/variety	Flower colour
	(I)II/III	Hamamelis japonica	yellow
	(I)II/III	Salix acutifolia 'Pendulifolia'	catkins
	(I)III	Salix caprea varieties	catkins
	(XII)II/III	Salix daphnoides 'Praecox'	catkins
	II-III	Cornus officinalis	yellow
	III/IV	Cornus mas	yellow
	III/IV	Corylus avellana	catkins
	III/IV	Corylus avellana 'Rotblättrige Zellernuß'	catkins
	(II)III/IV	Corylus maxima 'Purpurea'	catkins
	III/IV	Forsythia intermedia varieties	yellow
	III/IV	Parrotia persica	orange
	III/IV	Prunus subhirtella varieties	pink
	III/IV	Salix aurita	catkins
	III/IV	Salix cinerea	catkins
	III/IV	Salix smithiana	catkins
	III/IV	Salix viminalis	catkins
	(II)VI	Rhododendron species and varieties	all
	(III)IV	Prunus yedoensis	white
	IV	Amelanchier lamarckii	white
	IV	Cercis siliquastrum	pink, carmine
	IV	Magnolia liliiflora varieties	crimson pink
	IV	Prunus cerasifera varieties	pink
	IV	Prunus padus	white
	IV	Prunus sargentii	pink
	IV	Prunus 'Accolade'	pink
	IV	Salix sachalinensis 'Sekka'	catkins
	IV/V	Amelanchier laevis	white
	IV/V	Amelanchier 'Ballarina'	white
	IV/V	Halesia carolina	white
	IV/V	Magnolia loebneri varieties	white
	IV/V	Magnolia soulangiana varieties	pink-white
	IV/V	Magnolia stellata varieties	white, pink
	IV/V	Prunus serrulata varieties	pink
	IV/V	Syringa chinensis varieties	purple-pink
	IV/V	Syringa hyacinthiflora varieties	pink, crimson
	IV/V	Prunus padus 'Watereri'	white
	V	Acer ginnala	greenish white
	V	Berberis julianae	yellow
	V	Berberis ottawensis varieties	yellow
	V	Caragana arborescens	yellow
	V	Cornus florida varieties	white
	V	Cotoneaster bullatus	white
	V	Cotoneaster watereri 'Cornubia'	white
	V	Crataegus laevigata	white
	V	Crataegus coccinea	white
	V	Elaeagnus commutata	silver-yellow
	V	Laburnum anagyroides	yellow
	V	Laburnum watereri 'Vossii'	yellow
	V	Malus varieties	white, pink, red
	V	Malus toringo sargentii, seedling	white
	V	Prunus serrulata 'Kiku-shidare-zakura'	dark pink
	V	Pink species and varieties	all
	V	Staphylea colchica	white
	V	Syringa prestoniae	crimson-red
	V	Syringa vulgaris	purple
	V	Syringa vulgaris-hybrids	blue, purple, white, red, pink violet, double
	V	Viburnum lantana	white
	V	Viburnum rhytidophyllum	white

Explanation of symbols: I-XII = Month of flowering (January to December)





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4. Large shrubs	Flowering time	Genus/species/variety	Flower colour
	V/VI	Cornus alternifolia	white
	V/VI	Cornus controversa	white
	V/VI	Cornus florida rubra	pink
	V/VI	Cornus sanguinea	white
	V/VI	Crataegus laevigata 'Paul's Scarlet'	pink-red
	V/VI	Crataegus monogyna	white
	V/VI	Deutzia magnifica	white
	V/VI	Deutzia scabra varieties	pink-white
	V/VI	Elaeagnus angustifolia	silver-yellow
	V/VI	Lonicera maackii	white-light yellow
	V/VI	Mespilus germanica	white
	V/VI	Philadelphus inodorus grandiflorus varieties	white
	V/VI	Philadelphus 'Virginal'	white
	V/VI	Pyracantha hybrids	white
	V/VI	Sorbus koehneana	white
	V/VI	Sorbus vilmorinii	white
	V/VI	Syringa josikaea	violet
	V/VI	Tamarix parviflora	pink
	V/VI	Viburnum opulus	white
	V/VI	Viburnum opulus 'Roseum'	white
	V/VI, VIII	Cornus nuttallii varieties	white
	V/VI, VII	Prunus laurocerasus varieties	white
	VI	Chionanthus virginicus	white
	VI	Cornus kousa varieties	white, pink
	VI	Cotinus coggygria varieties	greenish white
	VI	Crataegus lavallei 'Carrierei'	white
	VI	Photinia villosa	white
	VI	Prunus lusitanica	white
	VI	Prunus serotina	white
	VI	Ptelea trifoliata	yellow-green
	VI	Robinia hispida varieties	pink
	VI, VII	Magnolia sieboldii	white
	VI, VII	Sambucus canadensis varieties	white
	VI, VII	Sambucus nigra	white
	VI, VII	Styrax japonicus	white
	VI, VII	Syringa reflexa	pink
	VI, VII	Syringa swegiflexa	carmine pink
	VII/ VIII	Aesculus parviflora	white
	VII/ VIII	Clerodendron trichotomum fargesii	white
	VII/ VIII	Stewartia pseudocamellia	white
	VII/ IX	Aralia elata varieties	white
	VIII/ IX	Buddleja davidii varieties	white, pink
	VII- X	Heptacodium miconioides	white
	X/ IV	Prunus subhirtella 'Autumnalis'	white
	X/ IV	Prunus subhirtella 'Autumnalis Rosea'	carmine pink
	XI/ XII	Hamamelis virginiana	yellow
	XII/ I/ III	Hamamelis mollis varieties	yellow, orange
	XII/ I/ III/ IV	Hamamelis intermedia varieties	yellow, orange, red

5. Normal shrubs	Flowering time	Genus/species/variety	Flower colour
	(X) III/ IV	Viburnum farreri	pink-white
	I/ III	Mahonia bealei	yellow
	III/ IV	Chaenomeles speciosa	red-orange
	III/ IV	Enkianthus campanulatus	red-green
	III/ IV	Prunus kurilensis 'Brillant'	white
	III/ VI	Rhododendron species and varieties	all
	(III) IV/ V	Pieris japonica varieties	white, pink
	IV	Corylopsis spicata	light yellow
	IV	Magnolia stellata varieties	white, pink
	IV	Malus toringo sargentii, grafted	white
	IV	Prunus spinosa	white
	IV	Ribes sanguineum varieties	carmine-red
	IV (V)	Salix aurita	catkins

Explanation of symbols: I-XII = Month of flowering (January to December)



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5. Normal shrubs	Flowering time	Genus/species/variety	Flower colour
	IV/ V	Aronia melanocarpa 'Viking'	white
	IV/ V	Chaenomeles hybrids	white, pink, orange, red
	IV/ V	Cotoneaster acutifolius	white-pink
	IV/ V	Forsythia 'Lynwood'	yellow
	IV/ V	Forsythia suspensa fortunei	yellow
	IV/ V	Fothergilla major	white
	IV/ V	Kerria japonica 'Pleniflora'	yellow
	IV/ V	Ribes aureum	yellow
		Prunus triloba	pink, double
	IV/ V	Spiraea arguta	white
	IV/ V	Spiraea cinerea 'Grefsheim'	white
	IV/ V	Viburnum burkwoodii	pink-white
	IV/ VI	Magnolia liliiflora varieties	pink, white
	V	Amelanchier ovalis	white
	V	Berberis julianae	yellow
	V	Berberis ottawensis varieties	yellow
	V	Berberis stenophylla	yellow
	V	Berberis thunbergii varieties	yellow
	V	Berberis vulgaris	yellow
	V	Cotoneaster multiflorus	white
	V	Deutzia lemoinei	white
	V	Elaeagnus multiflora	light yellow
	V	Lonicera xylosteum	white, light yellow
	V	Prunus serrulata 'Shimidsu'	pink-white
	V	Spiraea vanhouttei	white
	V	Viburnum caricephalum	white
	V	Viburnum plicatum varieties	white
	V	Viburnum 'Pragense'	white
	V/ IX	Colutea arborescens	yellow
	V/ VI	Calycanthus floridus	red-brown
	V/ VI	Cotoneaster sternianus	white
	V/ VI	Cytisus scoparius varieties	yellow
	V/ VI	Cytisus hybrid varieties	yellow, pink, red
	V/ VI	Deutzia hybrida 'Mont Rose'	pink
	V/ VI	Deutzia kalmiiiflora	light pink
	V/ VI	Kalmia latifolia	carmine pink
	V/ VI	Lonicera tatarica varieties	pink, white
	V/ VI	Philadelphus coronarius	white
	V/ VI	Photinia fraseri 'Red Robin'	white
	V/ VI	Pyracantha hybrid varieties	white
	V/ VI	Viburnum plicatum varieties	white
	V/ VI	Weigela florida varieties	pink, red
	V/ VI (X)	Prunus laurocerasus varieties	white
	V/ VI	Physocarpus opulifolius	pink-white
	V/ VII	Spiraea nipponica varieties	white
	V/ VIII	Weigela hybrid varieties	pink, red
	V/ XI	Pink species and varieties	all
	VI	Buddleja alternifolia	purple
	VI	Cotinus coggygria 'Royal Purple'	pink
	VI	Holodiscus discolor arifolius	white
	VI	Kolkwitzia amabilis	pink
	VI	Lonicera korolkowii zabelii	pink
	VI/ IX	Hibiscus syriacus varieties	blue, purple, red, carmine, white
	VI/ VII	Lonicera ledebourii	yellow
	VI/ VII	Philadelphus hybrid varieties	white
	VI/ VII	Sorbaria sorbifolia	white
	VI/ VIII	Rubus odoratus	red
	VII/ IX	Buddleja davidii varieties	purple-blue, red, violet, white
	VII/ IX	Clethra alnifolia	white
	VII/ IX	Hydrangea paniculata varieties	white, pink
	VII/ IX	Tamarix ramosissima	pink
	VII/ VIII	Hydrangea hybrid varieties	blue, red, white
	VII/ VIII	Hydrangea sargentiana	white, light pink

Explanation of symbols: I-XII = Month of flowering (January to December)





13 Flowering period calendar

5. Normal Shrubs	Flowering time	Genus/species/variety	Flower colour
	IX/IV	Viburnum bodnantense 'Dawn'	pink
	IX/X	Lespedeza thunbergii	crimson pink
	IX/X	Osmanthus heterophyllus	white
	XII/II/III/IV	Hamamelis intermedia varieties	yellow, orange, red

6. Small shrubs	Flowering time	Genus/species/variety	Flower colour
	(II)III/IV	Corylopsis pauciflora	yellow
	(II)III/IV	Daphne mezereum varieties	carmine, white
	II/IV	Chaenomeles japonica	orange-red
	(III)IV/V	Chaenomeles hybrid varieties	white, red
	III	Forsythia ovata 'Tetragold'	light yellow
	(II)IV/V	Pieris japonica varieties	white, pink
	III/VI	Rhododendron species and varieties	all
	III/IV	Salix caprea 'Pendula'	catkins
	III/IV	Salix hastata 'Wehrhahnii'	catkins
	III/IV	Salix lanata	catkins
	(III)IV	Spiraea thunbergii	white
	IV/V	Fothergilla gardenii	white
	IV/V	Fothergilla major	white
	IV/V	Kerria japonica	yellow
	IV/V	Lonicera caerulea	white
	IV(V)	Mahonia aquifolium varieties	yellow
	IV/V	Pieris floribunda	white
	IV/V	Prunus cistena	pink
	IV/V	Prunus tenella varieties	pink
	IV/V	Ribes sanguineum	carmine, red
	IV/V	Salix helvetica	catkins
	IV/V	Ulex europaeus	yellow
	(IV)V	Viburnum carlesii varieties	pink-white
	V	Aronia melanocarpa	white
	V/VI	Berberis - evergreen species and varieties	yellow
	V	Cotoneaster sternianus	white
	V/VI	Cytisus scoparius varieties	yellow, red, brown
	V	Daphne burkwoodii 'Somerset'	pink-white
	V/VI	Deutzia gracilis	white
	V	Deutzia rosea	pink-white
	V/VI	Exocorda macrantha 'The Bride'	white
	V/VI	Kalmia latifolia varieties	pink, red
	V/VI	Ledum palustre	white
	V/VI	Leucothoe walteri	white
	V/VI	Paeonia suffruticosa varieties	white, pink
	(V)VI/X	Potentilla fruticosa varieties	yellow, white, pink, red
	V/VI(X)	Prunus laurocerasus varieties	white
	V/VI	Rhodotypos scandens	white
	V/XI	Rosa species and varieties	all
	V	Skimmia japonica varieties	white
	V/VI	Spiraea nipponica varieties	white
	V	Spiraea prunifolia	white
	V/VI	Spiraea trilobata	white
	V/VI	Syringa meyeri 'Palibin'	crimson
	V/VI(X)	Syringa microphylla 'Superba'	pink
	V/VI	Syringa patula 'Miss Kim'	pink
	VI	Spiraea betulifolia varieties	white
	VI/VII	Acanthopanax sieboldianus	greenish white
	VI/VIII	Hydrangea arborescens varieties	greenish white, white
	VI/VIII	Hydrangea quercifolia	white
	VI/IX	Hypericum 'Hidcote'	yellow
	VI(VI)	Kalmia angustifolia 'Rubra'	crimson pink
	VI/VII	Lonicera japonica repens	light yellow
	VI/VII	Philadelphus hybrid varieties	white
	VI/IX	Spiraea bumalda varieties	carmine

Explanation of symbols: I-XII = Month of flowering (January to December)



Flowering period calendar 13

6. Small shrubs	Flowering time	Genus/species/variety	Flower colour
	VI/VII	Spiraea japonica varieties	pink, carmine
	VI/VII	Stephanandra tanakae	white
	VI/VII, X	Viburnum plicatum varieties	white
	IV	Vinca major	blue
	VII/XI	Ceanothus delilianus 'Gloire de Versailles'	blue
	VII/X	Ceanothus pallidus 'Marie Simon'	pink
	VII/VIII	Cytisus nigricans varieties	yellow
	VII/VIII	Genista tinctoria	yellow
	VII/VIII	Hydrangea hybrid varieties	blue, red, white
	VII/VIII	Hydrangea serrata	crimson, purple, blue, pink
	VII/VIII	Hypericum kalmianum varieties	yellow
	VII/IX	Hypericum patulum henryi	yellow
	VIII/IX	Caryopteris species and varieties	blue
	VIII/IX	Perovskia abredanoides	purple-blue
	IX/XI	Elaeagnus ebbingei	white
	IX/X	Lespedeza thunbergii	crimson pink
	IX/IV	Viburnum tinus	white pink

7. Dwarf shrubs	Flowering time	Genus/species/variety	Flower colour
	II/VI	Rhododendron species and varieties	all
	IV	Salix repens argentea	catkins
	IV/V/VI	Vinca minor varieties	blue, purple, crimson
	V	Berberis thunbergii varieties	yellow
	V/VII	Cornus canadensis	white
	V	Cytisus beanii	yellow
	V	Cytisus decumbens	yellow
	V	Cytisus kewensis	cream white
	V/VI	Cytisus purpureus	pink, white
	VI/X	Daboecia species and varieties	white, pink
	V/VI	Daphne cneorum	carmine pink
	V	Deutzia gracilis	white
	V/VI	Genista sagittalis	yellow
	V/VI	Kalmia latifolia varieties	pink, red
	V/VI	Pernettya mucronata	white
	V/VI/IX	Potentilla fruticosa varieties	yellow, pink, white, red
	V/IX	Rosa species and varieties	all
	VI/VIII	Erica cinerea varieties	pink, red, carmine
	VI	Genista lydia	yellow
	VI	Genista radiata	yellow
	VI	Genista tinctoria 'Plena'	yellow
	VI	Spiraea betulifolia varieties	white
	VI	Spiraea decumbens	white
	VI/VII	Spiraea japonica 'Little Princess'	pink
	VI	Viburnum davidii	white
	VII/IX	Erica tetralix varieties	white, pink, red
	VII/IX	Erica vagans varieties	pink, red
	VII/VIII	Hebe ochracea	white
	VII/IX	Hypericum moserianum	yellow
	VII/IX	Spiraea japonica 'Albiflora'	white
	VIII/IX	Calluna vulgaris varieties	red, pink, white
	XI-III/IV	Erica carnea varieties	pink, red, white
	XI/IV	Erica darleyensis	white, pink, red

8. HalbShrubs	Flowering time	Genus/species/variety	Flower colour
	IV/V	Pachysandra terminalis varieties	white
	IV/V(VII)	Vinca minor	blue
	V/VII	Cornus canadensis	white
	V/II	Genista sagittalis	yellow
	VI/VII	Lavandula angustifolia varieties	blue, purple
	VI/X	Clematis texensis	pink
	VII/X	Ceanothus delilianus 'Gloire de Versailles'	blue
	VII/X	Ceanothus pallidus 'Marie Simon'	pink
	VII/IX	Hypericum calycinum	yellow
	VII/X	Hypericum moserianum	yellow
	VIII/X	Perovskia abredanoides	purple-blue

Explanation of symbols: I-XII = Month of flowering (January to December)





14 Fragrant and aromatic plants

A distinction is made between fragrant and aromatic plants. Put simply, a fragrance is a scent that spreads by itself and is perceived as pleasant. For strong or repugnant fragrances, one usually speaks neutrally of smells or derogatorily of stench. Aromas occur when the proper plant part is rubbed, crushed, broken or roasted (in the sun) to release its ether oils or fruits or flowers bouquets.

Fragrances or aromas are not always perceived the same; the opinions vary greatly, as the example of *Buxus sempervirens* shows: for some it is pungent-aromatic, for others simply repugnant. In addition, men and woman very considerably in their perceptions of scents. The weather and time of day also plant an important role. Some plants are strongly fragrant in the evening, while they almost go unnoticed at noon-and vice versa. For more on this, see the individual descriptions.

Genus/species/variety	Fragrant	Aroma	Genus/species/variety	Fragrant	Aroma
1. Deciduous tree					
<i>Acer platanoides</i>	F		<i>Ceanothus delilianus</i> 'Gloire de Versailles'	(F)	
<i>Acer rubrum</i>	F		<i>Cercis siliquastrum</i>	f	
<i>Ailanthus altissima</i>	(F)	(AF)	<i>Chaenomeles</i> species and varieties	T	
<i>Amelanchier</i> varieties	(F)		<i>Chionanthus virginicus</i>	f	
<i>Betula pendula</i>		a	<i>Clethra alnifolia</i>	F	
<i>Castanea sativa</i>	(F)		<i>Cornus alternifolia</i>	(F)	
<i>Cercidiphyllum japonicum</i>		AF	<i>Cornus mas</i>	f	
<i>Cornus alternifolia</i>	(F)		<i>Cornus sanguinea</i>	(F)	
<i>Crataegus</i> species and varieties	(F)		<i>Corylopsis</i> varieties	F	
<i>Elaeagnus angustifolia</i>	F		<i>Cotoneaster</i> varieties	(F)	
<i>Fraxinus ornus</i>	F		<i>Crataegus</i> species and varieties	(F)	
<i>Heptacodium miconioides</i>	F		<i>Cytisus praecox</i>	(F)	
<i>Juglans regia</i>	T	(AF)	<i>Cytisus scoparius</i> varieties	(F)	
<i>Laburnum</i> species and varieties	F		<i>Daphne</i> species and varieties	F	
<i>Lonicera maackii</i>	F		<i>Elaeagnus</i> species and varieties	F	
<i>Magnolia</i> species and varieties	F		<i>Erica</i> species and varieties	f	
<i>Malus</i> species and varieties	F		<i>Fothergilla major</i>	F	
<i>Populus balsamifera</i>		AF	<i>Gaultheria procumbens</i>	T	AF
<i>Populus simonii</i>		a	<i>Hamamelis</i> species and varieties	F	
<i>Prunus avium</i>	F		<i>Hedera</i> species and varieties	(F)	
<i>Prunus lusitanica</i>	f		<i>Laburnum</i> species and varieties	f	
<i>Prunus padus</i>	(F)	a	<i>Leucothoë walteri</i>	f	
<i>Pyrus</i> species and varieties	(F)		<i>Ligustrum</i> species and varieties	(F)	
<i>Robinia</i> species and varieties	F		<i>Lonicera japonica repens</i>	F	
<i>Salix</i> species and varieties	F	a	<i>Lonicera maackii</i>	F	
<i>Sorbus</i> species and varieties	(F)		<i>Lonicera xylosteum</i>	F	
<i>Styrax japonicus</i>	F		<i>Magnolia</i> species and varieties	F	
<i>Styrax obassia</i>	F		<i>Mahonia aquifolium</i>	(F)	
<i>Tilia henryana</i>	F		<i>Mahonia bealei</i>	F	
<i>Tilia</i> species and varieties	F		<i>Malus</i> species and varieties	F	
			<i>Perovskia abrotanoides</i>	(F)	(AF)
			<i>Philadelphus</i> species and varieties	F	
			<i>Pieris</i> species and varieties	f	
2. Shrubs					
<i>Amelanchier</i> varieties	(F)		<i>Prunus laurocerasus</i> varieties	(F)	a
<i>Berberis</i> species and varieties	(F)		<i>Prunus spinosa</i>	f	
<i>Buddleja</i> species and varieties	(F)		<i>Prunus tenella</i>	f	
<i>Buxus sempervirens</i> varieties	(F)	(AF)	<i>Pyracantha</i> hybrid varieties	(F)	
<i>Calluna vulgaris</i> varieties	f		<i>Rhododendron</i> species and varieties	F	AF
<i>Calycanthus floridus</i>	F	a	<i>Rhododendron</i> deciduous azalea varieties	F	

Explanation of symbols: F = fragrance / (F) = pungent, somewhat unpleasant fragrance / f = slight fragrance / AF = aromatic foliage (AF) = strong smelling foliage / a = slightly fragrant to aromatic foliage / T = fragrant or aromatic fruit



Fragrant and aromatic plants 14

Genus/species/variety	Fragrant	Aroma	Genus/species/variety	Fragrant	Aroma
<i>Ribes alpinum</i>	f	a	3. Climbers		
<i>Ribes aureum</i>	F		<i>Akebia quinata</i>		f
<i>Ribes sanguineum</i>	(F)	(AF)	<i>Actinidia arguta</i>		f
<i>Rosa</i> species and varieties	F		<i>Clematis maximowicziana</i>		(F)
<i>Rosa rubiginosa</i>	f	AF	<i>Clematis montana</i>		F
<i>Rubus odoratus</i>	f		<i>Clematis vitalba</i>		(F)
<i>Salix</i> species and varieties	f	a	<i>Hedera</i> species and varieties		(F)
<i>Sambucus nigra</i>	F	(AF)	<i>Hydrangea petiolaris</i>		f
<i>Skimmia japonica</i>	F		<i>Lonicera japonica repens</i>		F
<i>Spiraea</i> species and varieties	(F)		<i>Lonicera caprifolium</i>		F
<i>Stranvaesia davidiana</i>	(F)		<i>Lonicera heckrottii</i>		F
<i>Syringa chinensis</i>	F		<i>Rosa</i> - Climbers		F
<i>Syringa josikaea</i>	(F)		<i>Wisteria sinensis</i>		F
<i>Syringa microphylla</i>	(F)		4. Conifers		
<i>Syringa reflexa</i>	(F)		<i>Abies</i> species and varieties		AF
<i>Syringa swegiflexa</i>	(F)		<i>Cedrus</i> species and varieties		a
<i>Syringa vulgaris</i> varieties	F		<i>Chamaecyparis</i> species and varieties		(AF)
<i>Viburnum burkwoodii</i>	F		<i>Ginkgo biloba</i>		T
<i>Viburnum carlecephalum</i>	F		<i>Juniperus</i> species and varieties		T (AF)
<i>Viburnum carlesii</i>	F		<i>Larix</i> species and varieties		a
<i>Viburnum davidii</i>	(F)		<i>Picea</i> species and varieties		a
<i>Viburnum farreri</i>	F		<i>Pinus</i> species and varieties		AF
<i>Viburnum lantana</i>	(F)		<i>Pseudotsuga menziesii caesia</i>		a
<i>Viburnum rhytidophyllum</i>	(F)		<i>Thuja</i> species and varieties		(AF)
			<i>Tsuga</i> species and varieties		a

Explanation of symbols: F = fragrance / (F) = pungent, somewhat unpleasant fragrance / f = slight fragrance / AF = aromatic foliage (AF) = strong smelling foliage / a = slightly fragrant to aromatic foliage / T = fragrant or aromatic fruit

Four-season plants 15

This category includes plants that have splendid effects in more than one season. This does not mean that these are "ever-flowering" plants, which do not actually exist. Rather, these are plants with several climactic colours or shapes, for spectacular or sensational flowers, fruits or fragrances cannot be expected in all seasons. The divisions into the four seasons should not be viewed too strictly as some colourful events may run parallel, i.e. flowers and colourful shoots, autumn colours and fruits, etc. Plants with exceptional flowers—such as Forsythia—that are of little interest after seasonal flowering are not listed. In addition, not all evergreen deciduous trees are listed as their long-lasting effects are taken for granted; see table 24 "Evergreen plants".

Genus/species/variety	Prespring	Spring	Summer	Autumn	Winter
<i>Acer ginnala</i>	---	white flowers	red fruit wings	bright red autumn colours	persistent fruit wings, brown
<i>Acer griseum</i>	cinnamon-red bark	shoots reddish, flowers yellowish	---	orange-red in autumn	cinnamon-red bark
<i>Acer japonicum</i> 'Aconitifolium'	red flowers	filigree leaf shape	leaf shape	orange-red in autumn	---
<i>Acer palmatum</i> varieties	---	shoots colourful	ornamental leaf shapes	bright orange to red autumn colours	---
<i>Acer pensylvanicum</i>	white-striped bark, red buds	reddish shoots	---	yellow autumn colours	bark
<i>Acer rubrum</i>	red flowers, slight fragrance of honey	reddish shoots	red fruit wings	orange-red in autumn	bark





15 Four-season plants

Genus/species/variety	Prespring	Spring	Summer	Autumn	Winter
<i>Acer</i> <i>rufinerve</i>	white-striped bark, red buds	bronze-green shoots	white-striped bark	orange autumn colours, bark	bark
<i>Aesculus</i> <i>parviflora</i>	---	reddish shoots	white flowers	yellow autumn colours	---
<i>Alnus</i> <i>incana</i> 'Aurea'	orange red catkins	yellow shoots	greenish-yellow leaves	yellow autumn colours	---
<i>Alnus</i> <i>spaethii</i>	reddish-yellow catkins	violet-red shoots	---	violet-red autumn colours	---
<i>Amelanchier</i> <i>laevis</i>	white flowers	reddish shoots	fruits blue-black	orange-red in autumn	---
<i>Amelanchier</i> <i>lamarckii</i>	white flowers	shoots grey	fruits blue-black	orange autumn colours	---
<i>Aronia</i> species and varieties	---	shoots red, flowers white	---	fruits reddish to black, red autumn colours	some with autumn colours
<i>Berberis</i> <i>ottawensis</i> varieties	---	shoots red, flowers yellow	leaves black-red	red autumn colours	fruits light red
<i>Berberis</i> <i>thunbergii</i> 'Atropurpurea' varieties	---	shoots red	leaves red-brown	red autumn colours	fruits light red colours
<i>Betula</i> species and varieties	bark white, catkins yellow	shoots light green, fragrant	---	yellow autumn colours	white bark
<i>Cercidiphyllum</i> <i>japonicum</i>	reddish flowers	brown-red shoots	leaf shape	yellow-orange autumn colours	fragrant falling leaves
<i>Chaenomeles</i> hybrids	partially flowers appear	shoots reddish, flowers white, pink and red	---	fruits bright yellow	persistent fruit
<i>Clematis</i> wild fruits varieties	silvery white	partially flowers appear	flowers	---	silvery syncarpy
<i>Cornus</i> <i>alba</i> varieties	red bark	reddish shoots	variegated leaves	reddish autumn colours	coloured bark
<i>Cornus</i> <i>kousa</i> varieties	---	flowers white to pink	fruits red	red autumn colours	---
<i>Cornus</i> <i>mas</i>	flowers yellow, slightly fragrant	---	fruits red	yellow-orange autumn colours	---
<i>Cornus</i> <i>nuttallii</i>	---	shoots light green, flowers white	some still flowering	yellow to orange autumn colours, fruits red	some still have fruit
<i>Cotinus</i> <i>cogggyria</i> 'Royal Purple'	---	shoots black-red	cottony inflorescences, pink	bright red autumn colours	---
<i>Cotoneaster</i> <i>horizontalis</i>	shoots early, fresh green	flowers white with pink	---	scarlet autumn colours	red fruits, filigree branching
<i>Cotoneaster</i> <i>multiflorus</i>	---	white flowers	fruits red	yellow autumn colours	---
<i>Cotoneaster</i> <i>praecox</i>	shoots early, fresh green	pink-white flowers	fruits red	bright red autumn colours	---
<i>Crataegus</i> <i>lavallei</i> 'Carrieri'	---	white flowers	shiny green leaves	orange autumn colours	persistent fruit, orange-red
<i>Crataegus</i> <i>coccinea</i>	shoots early	white flowers	fruits redder early	orange autumn colours	---
<i>Crataegus</i> <i>prunifolia</i>	---	white flowers	shiny green leaves	orange autumn colours	spectacular thorns
<i>Elaeagnus</i> <i>pungens</i> 'Maculata'	evergreen	shoots grey	leaves with yellow spots	flowers white, strong vanilla fragrance	occasional fruits, reddish
<i>Euonymus</i> <i>phellomanus</i>	bark with corky strips	white flowers	---	plentiful fruit, red, orange autumn colours	bark with corky strips
<i>Fothergilla</i> species	---	white flowers strong honey fragrance	two-colour leaves, grey underneath	red autumn colours	---



Four-season plants 15

Genus/species/variety	Prespring	Spring	Summer	Autumn	Winter
<i>Hamamelis</i> species and varieties	flowers yellow or red, pleasant fragrance	some still flowering	---	yellow or red autumn colours	flowering begins, yellow or red
<i>Koeleruteria</i> <i>paniculata</i>	---	reddish shoots	flowers yellow	orange-yellow autumn colours	fruits swollen like blisters
<i>Magnolia</i> species and varieties	flowers pink or white, strong fragrance	shoots reddish, some still flowering	---	yellowish-brown autumn colours	silvery buds
<i>Malus</i> hybrid	---	flowers white, pink or carmine, fragrance; reddish shoots	some have bronze leaves	fruits red or yellow	some still have fruit
<i>Parrotia</i> <i>persica</i>	reddish flowers	reddish shoots	---	orange-red autumn colours	multi coloured bark
<i>Photinia</i> <i>villosa</i>	---	white flowers	---	red autumn colours, red fruits	some still have fruit
<i>Photinia</i> <i>fraseri</i> 'Red Robin'	evergreen	shoots bright red, flowers white	some still flowering, evergreen	evergreen	evergreen
<i>Pieris</i> <i>japonica</i> 'Forest Flame', P. J. 'Red Mill'	evergreen	shoots bright red to red-brown, flowers white	evergreen	evergreen	evergreen
<i>Prunus</i> <i>avium</i>	flowers white, slightly fragrant	shoots green-golden to bronze	fruits red or black	orange-yellow autumn colours	shiny red-brown bark
<i>Prunus</i> <i>kurilensis</i> 'Brillant'	white flowers	reddish green shoots	fruits shiny black	bright red autumn colours	---
<i>Prunus</i> <i>hillieri</i> 'Spire'	pink-white flowers	bronze-red shoots	---	orange-red in autumn	---
<i>Prunus</i> <i>maackii</i> varieties	shiny orange bark	white flowers	early fruits, black	reddish yellow autumn colours	bright bark
<i>Prunus</i> <i>sargentii</i>	flowers pink, bark shiny brown	brown-red shoots	---	red autumn colours	shiny brown bark
<i>Prunus</i> <i>schmittii</i>	shiny red-brown bark	flowers light pink	---	yellowish autumn colours	shiny red-brown bark
<i>Prunus</i> <i>serrula</i>	shiny mahogany-red bark	white flowers	---	yellow autumn colours	red bark
<i>Prunus</i> <i>serrulata</i> varieties	flowers white or pink, bark shiny brown	shoots reddish or green-golden	---	orange-yellow autumn colours	bark
<i>Rhododendron</i> (summer green Azaleas)	flowers brightly coloured, sweet fragrance	reddish shoots	---	orange autumn colours	---
<i>Rosa</i> species and varieties	---	flowers white, pink, red	some still flowering	yellow to orange autumn colours	persistent rose hips, red or orange
<i>Salix</i> <i>acutifolia</i> 'Pendulifolia'	yellow catkins, fragrant glaucous blue dark	bark	two-tone leaves, elegant leaf positions	yellow autumn colours	blue glaucous bark
<i>Salix</i> <i>daphnoides</i> varieties	yellow catkins, fragrant glaucous blue-white-bark	bark	two-tone leaves	yellow autumn colours	bark, some catkins
<i>Salix</i> <i>sachalinensis</i> 'Sekka'	catkins silvery to yellow, twigs like strips	fresh green shoots	---	yellow to green autumn colours	twigs like strips flattened
<i>Sorbus</i> <i>vilmorinii</i>	---	white flowers	filigree foliage	red-brown, autumn colours, pink fruits	---
<i>Spiraea</i> <i>betulifolia</i> varieties	---	early shoots, reddish, white flowers	flowers	some orange autumn colours	---
<i>Stephanandra</i> <i>tanakae</i>	orange-brown twigs	shoots early	white flowers	orange-yellow autumn colours	orange-brown twigs
<i>Viburnum</i> <i>bodnantense</i> 'Dawn'	pink flowers, strong vanilla fragrance	shoots early, reddish	---	brick-red in autumn	flowering begins, flowers pink to white, fragrant
<i>Viburnum</i> <i>farreri</i>	flowers pink-white	green-golden shoots strong fragrance	---	crimson-red autumn colours	flowering begins, flowers pink-white
<i>Viburnum</i> <i>opulus</i>	fruits from previous year still persisting	white flowers	---	orange autumn colours, red fruits	fruits still persisting





16 Plants with decorative fruit

Conspicuously coloured fruits generally appear at the end of July/August. The degree of ripeness depends on the weather conditions, which means the colours are not the same at the same time every year. Theoretically, berries, capsules, and pods may last for weeks, but in some years birds may bring a swift end to the decorative fruit.

Note: For the poisonous of these plants, see special table 18.

1. Deciduous plants	Genus/species/variety	Fruit colour / Fruit shape	Edibility
	Acer ginnala	red	
	Acer palmatum	red	
	Acer rubrum	red	
	Aesculus hippocastanum	brown	inedible, pungent
	Alnus cordata	green, brown	
	Amelanchier species	blue-black	edible, sweet
	Aralia elata	black	poisonous, bitter
	Castanea sativa	brown	edible
	Catalpa bignonioides	brown	
	Clerodendron trichotomum	black-blue with red	inedible
	Cornus controversa	black	inedible
	Cornus florida	red	inedible
	Cornus kousa varieties	red	tasteless
	Cornus nuttallii	pink to crimson	tasteless
	Corylus colurna	brown clusters of fruit	tasteless
	Crataegus lavallei 'Carrierei'	orange-red	mealy, sour
	Elaeagnus angustifolia	yellow	sweet
	Euodia hupehensis	red to black	inedible
	Gleditsia triacanthos	brown husks	
	Ilex aquifolium varieties	red	very poisonous
	Juglans cinerea	brown	edible
	Juglans regia	green	edible
	Koeleruteria paniculata	brown	
	Liquidambar styraciflua	green hedgehog	inedible
	Lonicera maackii	red	inedible
	Magnolia species and varieties	red	inedible
	Malus hybrids varieties	yellow, orange, red	edible, sour
	Mespilus germanica	brown	edible, doughy
	Morus species	red to black	edible, sweet
	Ostrya carpinifolia	brown	inedible
	Paulownia tomentosa	brown	inedible
	Phellodendron amurense	black	inedible
	Prunus avium	red, black	edible, sweet
	Prunus cerasifera varieties	red	edible, sweet
	Prunus mahaleb	black	bittersweet
	Prunus serotina	black	bittersweet
	Pterocarya fraxinifolia	green panicles	inedible
	Rhus species and varieties	reddish spadix panicles	inedible
	Sorbus species and varieties	many colours	bitter, tangy, sour

2. Shrubs	Genus/species/variety	Fruit colour / Fruit shape	Edibility
	Acanthopanax sieboldianus	black	poisonous
	Acer palmatum	red	
	Acer tataricum	red	
	Amelanchier species and varieties	blueblack	edible, sweet
	Arctostaphylos uva-ursi	red	mealy-tasteless
	Aronia species and varieties	red and black	edible, sweet
	Aucuba japonica	red	poisonous
	Berberis – summergreen	red	sour, juicy
	Berberis – evergreen	blue-black	inedible
	Callicarpa species and varieties	violet	inedible
	Ceanothus species and varieties	brown umbels	inedible
	Celtis australis	violet-brown	edible, sweet



Plants with decorative fruit 16

2. Shrubs	Genus/species/variety	Fruit colour / Fruit shape	Edibility
	Chaenomeles species and varieties	yellow	edible, aromatic
	Chionanthus virginicus	black	inedible
	Heptacodium miconioides	purple-red	
	Colutea arborescens	red-brown	poisonous
	Cornus alba varieties	white	inedible
	Cornus canadensis	red	tasteless
	Cornus mas	red	edible, sour
	Cornus sanguinea	black	inedible
	Corylus species	brown	edible
	Cotinus coggygria varieties	like hairs	inedible
	Cotoneaster species and varieties	red, black	mealy-tasteless
	Crataegus species and varieties	red	mealy
	Decaisnea fargesii	blue	sticky-sweet
	Elaeagnus species and varieties	silvery brown-red	edible, sweet
	Empetrum nigrum	black	edible, sour-bitter
	Euonymus species and varieties	orange, red	sehr poisonous
	Gaultheria procumbens	red	edible, aromatic
	Gaultheria shallon	black	mealy
	Hedera species and varieties	black	sehr poisonous
	Hippophae rhamnoides	orange	edible, sweet-sour
	Hydrangea arborescens varieties	brown with red umbels	
	Ilex species and varieties	red	sehr poisonous
	Ligustrum species and varieties	black	sehr poisonous
	Lonicera species and varieties	red, black	inedible, poisonous
	Lycium barbarum	orange-red	sehr poisonous
	Mahonia aquifolium	blue-black	sour
	Malus hybrids	red, orange, yellow	edible, sour
	Pernettya mucronata varieties	white, pink, red	poisonous
	Photinia villosa	red	mealy
	Physocarpus opulifolius	brown capsules	
	Prunus species and varieties	dark red, black	bitter-sweet
	Prunus spinosa	blue-black	tangy
	Ptelea trifoliata	yellow-green	extremely bitter
	Pyracantha hybrids	red, orange, yellow	mealy
	Rhamnus species and varieties	black	poisonous
	Rhodotypos scandens	black	inedible
	Pink species and varieties	red, orange, black	edible, sweet
	Rubus species	black	edible, sweet
	Sambucus nigra	black	edible, tangy
	Sambucus racemosa	red	inedible raw
	Skimmia japonica varieties	red	inedible
	Stranvaesia davidiana	red	mealy
	Symphoricarpos albus laevigatus	white	inedible
	Symphoricarpos chenaultii	pink	inedible
	Symphoricarpos doorenbosii	carmine, red	inedible
	Symphoricarpos orbiculatus	pink, red	inedible
	Vaccinium corymbosum	blue-black	edible, sweet
	Vaccinium macrocarpon	red	edible, tangy
	Vaccinium vitis-idaea varieties	red	edible, tangy
	Viburnum davidii	blue	inedible
	Viburnum lantana	red and black	poisonous
	Viburnum opulus	red	inedible
	Viburnum rhytidophyllum	red and black	inedible
	Viburnum tinus	steel blue	inedible

3. Climbers	Genus/species/variety	Fruit colour / Fruit shape	Edibility
	Celastrus orbiculatus	yellow or orange	very poisonous
	Clematis species and varieties	silvery	poisonous
	Hedera species and varieties	black	poisonous
	Lonicera species and varieties	orange, red	poisonous
	Lonicera henryi	black	poisonous
	Parthenocissus species and varieties	blue-black	scratchy, inedible
	Rosa - Climbers	red	sour-sweet





16 Plants with decorative fruit

4. Conifers	Genus/species/variety	Fruit colour / Fruit shape	Edibility
	Abies koreana	cones violet	
	Abies procera 'Glauca'	large cones	
	Cedrus atlantica 'Glauca'	cones	
	Ginkgo biloba	yellow	edible
	Juniperus species and varieties	blue-black	poisonous
	Juniperus communis varieties	blue	tangy-aromatic, poisonous
	Picea abies 'Acrocona'	mounstrous cones	
	Picea omorika	cones	
	Picea orientalis	decorative cones	
	Picea pungens varieties	brown	
	Pinus densiflora 'Pumila'	numerous cones	
	Pinus parviflora varieties	numerous cones	
	Pinus peuce	numerous cones	
	Pinus strobus varieties	numerous cones	
	Pinus wallichiana	numerous cones	
	Taxus baccata	like berries, red	only husk, poisonous
	Tsuga canadensis	decorative cones	
	Tsuga mertensiana	violet-brown cones	

17 Plants with edible fruit - wild fruit

This summary is intended for sites where the planting is selected so that the fruits are either useable raw or cooked. This does not mean that the berries, nuts, or capsules necessarily taste good. Fruits that taste repulsive or neutral but are theoretically edible were left out. The fruit-bearing plants are important as educational tools in schoolyards, as food for the self-sufficient and connoisseurs of wild fruit or simply to lure wild animals for observation.

Genus/species/variety	Edibility / characteristics	Genus/species/variety	Edibility / characteristics
1. Deciduous plants			
Amelanchier species and varieties	raw, processed	Rosa species and varieties	raw, processed, rich in vitamins
Aronia species and varieties	raw, processed	Rubus calycinoideus	raw, processed
Berberis vulgaris	processed, rich in vitamins	Rubus fruticosus	raw, processed
Castanea sativa	processed	Rubus idaeus	raw, processed
Celtis australis	processed	Sambucus nigra	processed, only fully ripe, rich in vitamins
Chaenomeles species and varieties	processed	Sambucus racemosa	processed, very tangy
Cornus mas	raw, processed, rich in vitamins	Sorbus aucuparia varieties	processed, very tangy, rich in vitamins
Corylus species and varieties	raw, processed	Sorbus arnoldiana varieties	processed, sehr tangy
Crataegus lavallei 'Carrierei'	raw, processed	Sorbus decora	processed, rich in vitamins
Crataegus coccinea	processed	Sorbus domestica	processed
Elaeagnus species and varieties	raw, processed	Sorbus torminalis	processed
Empetrum nigrum	processed	Vaccinium corymbosum	raw, processed, rich in vitamins
Gaultheria procumbens	processed, strange-aromatic	Vaccinium macrocarpon	processed, rich in vitamins
Hippophae rhamnoides	raw, processed	Vaccinium vitis-idaea varieties	processed, rich in vitamins
Juglans cinerea	raw, processed	2. Climbers	
Juglans regia	raw, processed	Actinidia species and varieties	raw, processed, rich in vitamins
Lonicera caerulea	processed	Akebia quinata	processed
Mahonia aquifolium	processed	Rosa - Climbers	raw, processed
Malus hybrids	raw, processed, somewhat tangy	3. Conifers	
Mespilus germanica	processed	Ginkgo biloba	processed, kernels roasted
Morus species and varieties	raw, processed, rich in vitamins	Juniperus communis	processed/fermented
Prunus avium	raw, processed	Pinus cembra	raw, processed, pine nuts
Prunus cerasifera varieties	raw, processed	Taxus baccata	raw, only seed case, kernels poisonous
Prunus spinosa	processed, very tangy		
Ribes aureum	processed, very tangy		



Poisonous plants 18

This "list of poisonous plants" is only meant to provide orientation. It is not and cannot be exhaustive as our knowledge of chemical composition is quite insufficient. Many plants considered poisonous probably are not. Often, conspicuous berries and a foul smell lead to unjustified suspicion. The plants listed as slightly poisonous are only mentioned so that their poisonousness is not overestimated. Plant parts of many of these species would have to be eaten in large amounts to lead to strong symptoms. Many of them have such a repulsive taste—based on the samples tried by the author—that it is hardly imaginable that children would voluntarily eat more than a few berries. The plants marked with +++ are extremely poisonous, and their inclusion in any landscape scheme should be carefully considered. The others will lead to diarrhoea, vomiting, dizziness or headaches if their plant parts are eaten. You should see a doctor in any case.

In critical cases, the following reference works are recommended:

- ROTH/ DAUNDERER/KORKMANN: Giftpflanzen - Pflanzengifte. Ecomed-Verlag, Landsberg - München, 1988
- FROHNE/PFÄNDER: Giftpflanzen. Wissensch. Verlagsgesellschaft Stuttgart, 1987
- Information centres for cases of poisoning are found in all major cities in the university and city clinics.

1. Deciduous plants	Genus/species/variety	Poisonous plant part	Degree of poison	Taste
	Acanthopanax sieboldianus	whole plant	+	bitter
	Aesculus species and varieties	unripe fruit, green fruit husks	(+)+	tart, tangy
	Ailanthus altissima	bark, seeds	+	bitter
	Aralia elata and varieties	bark, seeds	+	repugnantly bitter-sweet
	Aristolochia macrophylla	whole plant	+	unpleasant
	Aucuba japonica	whole plant	+	bitter fruits
	Berberis - blue-fruit species	roots, bark, berries	+	red fruits harmless
	Buddleja davidii	leaves, seeds	(+)	empty
	Buxus sempervirens varieties	whole plant	++	bitter
	Calycanthus floridus	whole plant	(+)	aromatic
	Caragana arborescens	whole plant	(+)	fruits empty
	Catalpa bignonioides	whole plant	(+)	unpleasant
	Celastrus orbiculatus	whole plant	+	berries bittersweet
	Clematis species and varieties	whole plant	+	
	Colutea arborescens	leaves, seeds	+	bitter
	Cornus sanguinea	leaves, fruits	(+)	berries repugnantly bittersweet
	Cotinus coggygia	whole plant	(+)	
	Cytisus species and varieties	whole plant	+	Pods like beans
	Daphne species and varieties	whole plant	+++!	peppery hot
	Euonymus species and varieties	whole plant	+	bitter
	Fagus sylvatica	Buheckern	(+)	like nuts
	Genista species and varieties	whole plant	+	bitter
	Gleditsia triacanthos and varieties	only leaves	+	fruits edible
	Gymnocladus dioicis	leaves, seeds	+	
	Hedera species and varieties	whole plant	+	berries like paper, burningly bitter
	Ilex species and varieties	whole plant	++	berries repugnantly tangy
	Kalmia species and varieties	whole plant	+	unpleasant
	Laburnum species and varieties	whole plant	+++	fruits like beans, sweet roots
	Ledum palustre	whole plant	+	aromatic-bitter
	Ligustrum species and varieties	whole plant	+	fruits repugnantly sweet
	Liriodendron tulipifera	whole plant	+	fruits aromatic-bitter
	Lonicera species and varieties	berries	(+)	fruits repugnantly sweetish-bitter
	Lycium barbarum	whole plant	++	
	Mahonia aquifolium	whole plant, except berries!	+	berries are processed into jelly in the USA
	Myrica gale	whole plant	+	intensely aromatic
	Pachysandra terminalis	whole plant	+	bitter
	Paeonia suffruticosa varieties	whole plant	+	
	Pernettya mucronata varieties	whole plant	+	
	Pieris species and varieties	whole plant	+	
	Prunus laurocerasus varieties	whole plant	+	fresh fruit not poisonous! like sloe
	Prunus serotina	whole plant, except cherries!	+	cherries repugnantly bittersweet
	Rhamnus species and varieties	whole plant	+	berries repugnantly bitter
	Rhododendron species and varieties	whole plant	+++	unpleasant

Explanation of symbols: +++ = extremely poisonous / ++ = very poisonous / + = poisonous / (+) = slightly poisonous





18 Poisonous plants

Genus/species/variety	Poisonous plant part	Degree of poison	Taste
Rhus species and varieties	milky sap	+	corrosive
Robinia species and varieties	whole plant	++	bark and roots pleasantly sweetish
Sambucus species and varieties	whole plant	(+)	do not use unripe fruit!
Skimmia japonica varieties	whole plant	(+)	aromatic
Sophora japonica	whole plant	++	
Symphoricarpos species and varieties	berries	(+)	slimy-empty
Ulex europaeus	whole plant	++	fruits like beans
Viburnum species and varieties	bark, leaves	+	berries bittersweet, no problems when cooked
Vinca species and varieties	whole plant	+	unpleasant
Wisteria species and varieties	whole plant	+	fruits like beans

2. Conifers	Genus/species/variety	Poisonous plant part	Degree of poison	Taste
	Chamaecyparis species and varieties	whole plant	+	aromatic-bitter
	Cupressocyparis species and varieties	whole plant	++	bitter
	Juniperus horizontalis	whole plant	+++	aromatic-bitter
	Juniperus media varieties	whole plant	+++	berries spicy, peppery hot
	Juniperus sab a and varieties	whole plant	+++	berries bitter-spicy
	Juniperus virg iana varieties	whole plant	+++	berries bitter-spicy
	Microbiota decussata	whole plant	+	aromatic-bitter
	Taxus species and varieties	whole plant, except red seed case, but, kernel poisonous!	+++	unpleasant
	Thuja species and varieties	wood, cane, twigs	+	

Explanation of symbols: +++ = extremely poisonous / ++ = very poisonous / + = poisonous / (+) = slightly poisonous

19 Plants with leaf colours other than green

1. Red foliage (back-red, dark-red, brown-red, bronze-red)

The chlorophyll is covered by the red cell pigment anthocyanine in plants with red foliage. These varieties behave much the same as the green varieties, though their final size is smaller.

Colour development:

The spring shoots are light, bright red; the leaf surface has a slight black-metallic shimmer. The chlorophyll is stronger in summer, giving the leaves a bronze-red to green mixture. Young leaves on the sunny side are reddest, while the older ones on the shady side are greenest. In the interest of an intense red hue, it pays to cut special red-foliage shrubs generously in spring.

Genus/species/variety	Leaf colour	Genus/species/variety	Leaf colour
1. Deciduous plants			
Acer cappadocicum 'Rubrum'	red	Fagus sylvatica 'Purpurea Pendula'	black-red
Acer griseum	brown-red shoots	Fagus sylvatica 'Riversii'	red
Acer palmatum 'Atropurpureum'	crimson-red	Fagus sylvatica 'Swat Magret'	black-red
Acer palmatum 'Fireglow'	red	Malus 'Coccinella'	red
Acer platanoides 'Deborah'	red shoots	Malus 'Hopa'	red shoots
Acer platanoides 'Faassen's Black'	shiny black-red	Malus 'Liset'	red shoots, later bronze
Acer platanoides 'Royal Red'	crimson-red	Malus 'Nicoline'	red shoots
Acer platanoides 'Schwedleri'	red shoots	Malus 'Profusion'	red shoots
Acer neglectum 'Annae'	red shoots	Malus 'Rudolph'	red shoots
Fagus sylvatica 'Atropunicea'	metallic copper-red	Prunus cerasifera 'Nigra'	black-red
Fagus sylvatica 'Dawyck Purple'	crimson-brown	Prunus serrulata in varieties	shoots brown to dark red, later green
Fagus sylvatica 'Purple Fountain'	dark red to braun	Robinia 'Casque Rouge'	shoots brown, later green



Plants with leaf colours other than green 19

Genus/species/variety	Leaf colour	Genus/species/variety	Leaf colour
2. Deciduous shrubs			
Acer palmatum 'Dissectum Atropurpureum'	red-brown	Erica cinerea 'Katinka'	bronze-red in winter
Acer palmatum 'Dissectum Garnet'	shoots dark-red	Erica cinerea 'Pink Ice'	bronze-red in winter
Aronia melanocarpa	shoots crimson-red	Euonymus fortunei 'Coloratus'	crimson-red on underside
Berberis buxifolia 'Nana'	shoots crimson-red		of leaf in winter
Berberis ottawensis 'Superba'	metallic black-red	Euonymus fortunei 'Dart's Blanket'	crimson-red on underside
Berberis thunbergii 'Atropurpurea'	red shoots		of leaf in winter
Berberis thunbergii 'Atropurpurea Nana'	red shoots	Malus 'Eleyi'	reddish shoots, later dark green
Berberis thunbergii 'Bagatelle'	intense crimson-red	Malus 'Makamik'	red shoots, later bronze
Berberis thunbergii 'Red Chief'	brown-red	Malus 'Royalty'	dark red
Calluna vulgaris 'Boskoop'	copper-orange in winter, later orange-yellow	Paeonia suffruticosa	shoots dark red
Calluna vulgaris 'Carmen'	brown in winter, later dark green	Pieris japonica 'Forest Flame'	shoots bright red later bronze-green
Calluna vulgaris 'County Wicklow'	bronze in winter, then grey-green	Pieris japonica 'Red Mill'	shoots shiny bronze-red
Calluna vulgaris 'J. H. Hamilton'	reddish in winter, then green	Photinia fraseri 'Red Robin'	shoots light red, later bronze-green
Calluna vulgaris 'Liebestraum'	bronze in winter, then grey	Prunus cerasifera 'Nigra'	black-red
Calluna vulgaris 'Marlies'	bronze in winter, then grey-green	Prunus 'Trailblazer'	shoots green, later bronze
Calluna vulgaris 'Sonnyboy'	orange in winter, then yellowish green	Prunus cistena	shoots dark red, later brown
Calluna vulgaris 'Spring Torch'	orange-red starting in spring	Rosa glauca	red shoots, later bronze to blue
Clematis montana 'Rubens'	red shoots	Spiraea bumalda 'Froebelli'	shoots bronze, later green
Cornus alba 'Kesselringii'	brown shoots, later bronze	Spiraea bumalda 'Goldflame'	shoots bronze-red, later yellow-green
Corylus avellana 'Rotblättrige Zellenuss'	red-brown	Spiraea japonica 'Golden Princess'	red shoots, then bronze-red
Corylus maxima 'Purpurea'	shiny black-red	Weigela florida 'Purpurea'	shoots dark red, later brown-red
Cotinus coggygria 'Royal Purple'	metallic black-red		
		3. Conifers	
		Microbiota decussata	brick-red in winter, green starting in spring

2. Yellow foliage (green-yellow, yellow spots, margins or stripes or pure yellow)

Colour development:

The new needles or leaves are a bright golden yellow in spring, losing their brightness in summer as the deep yellow turns a green-gold or yellow-green. The colour is best in sunny or lightly shady areas. In the shade, the yellow disappears. As there is considerably less chlorophyll in yellow varieties than in green ones, yellow varieties grow more slowly than green varieties and remain smaller. Yellow-foliage plants require a fresh to moist, cool area; dry soil and air and extreme frost conditions should be avoided.

Genus/species/variety	Leaf of Colour	Genus/species/variety	Leaf of Colour
1. Deciduous plants			
Elaeagnus pungens 'Maculata'	yellow spots	Elaeagnus pungens 'Maculata'	yellow spots
Euonymus fortunei 'Emerald'n Gold'	yellow spots	Euonymus fortunei 'Emerald'n Gold'	yellow spots
Euonymus fortunei 'Sunspot'	yellow leaf centre	Euonymus fortunei 'Sunspot'	yellow leaf centre
Hebe ochracea	yellow-green to golden yellow	Hebe ochracea	yellow-green to golden yellow
Hedera colchica 'Dentata Variegata'	yellow to cream margins	Hedera colchica 'Dentata Variegata'	yellow to cream margins
Hedera helix 'Goldheart'	green margin, yellow centre	Hedera helix 'Goldheart'	green margin, yellow centre
Ilex altaclarensis 'Golden King'	yellow margins	Ilex altaclarensis 'Golden King'	yellow margins
Ilex crenata 'Golden Gem'	shoots bright yellow, later green-yellow	Ilex crenata 'Golden Gem'	shoots bright yellow, later green-yellow
Ligustrum ovalifolium 'Aureum'	yellow veins	Ligustrum ovalifolium 'Aureum'	yellow veins
Lonicera japonica 'Aureoreticulata'	shoots red, then golden yellow	Lonicera japonica 'Aureoreticulata'	shoots red, then golden yellow
Sambucus canadensis 'Aurea'	first golden yellow, then yellow-green	Sambucus canadensis 'Aurea'	first golden yellow, then yellow-green
Spiraea bumalda 'Goldflame'	citrus-yellow	Spiraea bumalda 'Goldflame'	citrus-yellow
Spiraea japonica 'Goldmound'	cream-yellow to white	Spiraea japonica 'Goldmound'	cream-yellow to white
Weigela florida 'Nana Variegata'	cream-yellow to white margins	Weigela florida 'Nana Variegata'	cream-yellow to white margins
3. Conifers			
Cedrus atlantica 'Aurea'	yellow tips, otherwise yellow-green	Cedrus atlantica 'Aurea'	yellow tips, otherwise yellow-green
Chamaecyparis lawsoniana 'Alumigold'	golden yellow	Chamaecyparis lawsoniana 'Alumigold'	golden yellow
Chamaecyparis lawsoniana 'Ellwood's Gold'	deep golden yellow	Chamaecyparis lawsoniana 'Ellwood's Gold'	deep golden yellow
Chamaecyparis lawsoniana 'Golden Wonder'	green-yellow	Chamaecyparis lawsoniana 'Golden Wonder'	green-yellow
2. Shrubs			
Aucuba japonica 'Variegata'	spotted	Aucuba japonica 'Variegata'	spotted
Calluna vulgaris 'Gold Haze'	bright yellow in winter, then greenish yellow	Calluna vulgaris 'Gold Haze'	bright yellow in winter, then greenish yellow
Cornus alba 'Spaethii'	yellow margins	Cornus alba 'Spaethii'	yellow margins
Corylus avellana 'Aurea'	shoots bright yellow, then yellow-green	Corylus avellana 'Aurea'	shoots bright yellow, then yellow-green





19 Plants with leaf colours other than green

2. Yellow foliage

Genus/species/variety	Colour of shoots
3. Conifers	
Chamaecyparis lawsoniana 'Kelleris Gold'	golden yellow
Chamaecyparis lawsoniana 'Lane'	yellow outside, yellow-green inside
Chamaecyparis lawsonia 'Stewartii'	bright golden yellow
Chamaecyparis pisifera 'Filifera Aurea Nana'	golden yellow
Chamaecyparis pisifera 'Sungold'	golden yellow to yellowish green
Chamaecyparis pisifera 'Plumosa Aurea'	golden yellow
Juniperus chinensis 'Plumosa Aurea'	golden yellow
Juniperus media 'Old Gold'	yellow to yellowish green
Juniperus media 'Pfitzeriana Aurea'	yellow shoots
Picea orientalis 'Aurea'	yellow to yellowish green

3. White foliage (white spots, margins or stripes)

Genus/species/variety	Colour of shoots
1. Deciduous plants	
Acer negundo 'Variegatum'	white spots
Acer platanoides 'Drummondii'	broad white leaf margins
Aralia elata 'Variegata'	cream-white margins

Genus/species/variety	Colour of shoots
2. Shrubs	
Actinidia kolomikta	first pink, then white leaf halves

Note:
See details on the yellow-foliage plants. In addition to the chlorophyll, the yellow pigment is also missing. The colour is caused by colourless cell elements.

4. White or grey tomentose leaves

The leaves have the usual green hues, while the leaf laminae are only white or grey due to the dense layer of tomentose hairs, silvery-shiny scales or a waxy coating. These coverings serve to protect the leaves from evaporation, heat and cold.

Colour development:
During shooting, the young leaves have dense, conspicuous white hairs on both sides. Starting in late summer, the leaf organs are dull green on top and blue or grey-green only on the underside. It is normal for this colour to disappear; it comes back every year.

Genus/species/variety	Leaf colour
1. Deciduous plants	
Acer saccharinum und varieties	underside
Acer rubrum	underside
Alnus incana	shoots/underside
Elaeagnus angustifolia	both sides
Hippophae rhamnoides	both sides
Malus tschonoskii	shoots/underside
Populus alba 'Nivea'	shoots/underside
Pyrus nivalis	underside
Pyrus regelii	shoots/underside
Pyrus salicifolia	both sides
Pyrus salicifolia 'Pendula'	both sides
Salix alba und varieties	both sides
Salix caprea	underside
Salix smithiana	underside
Salix viminalis	underside
Sorbus aria und varieties	shoots/underside
Sorbus intermedia und varieties	underside

Genus/species/variety	Colour of shoots
Taxus baccata 'Aureovariegata'	yellow to light green
Taxus baccata 'Dovastonii Aurea'	yellow needle margins
Taxus baccata 'Fastigiata Aureomarginata'	bright golden yellow
Taxus baccata 'Semperaurea'	citrus-yellow
Taxus baccata 'Summergold'	yellow needle margins
Taxus baccata 'Washingtonii'	first yellow, then light green
Thuja occidentalis 'Europe Gold'	shoots golden yellow, then yellow-green
Thuja occidentalis 'Sunkist'	initially yellow-green, later fresh green
Thuja orientalis 'Aurea'	golden yellow, bronze yellow in winter
Thuja plicata 'Aureascens'	yellow-green, white stripes

Genus/species/variety	Colour of shoots
Aralia elata 'Variegata'	cream-white margins
Cornus alba 'Elegantissima'	white margins
Euonymus fortunei 'Emerald Gaiety'	white margins, somewhat pink
Euonymus fortunei 'Variegatus'	white with pink spots
Ilex aquifolium 'Argentea Marginata'	white margins
Pieris japonica 'Variegata'	white margins
Weigela florida 'Nana Variegata'	grey to white margins

Genus/species/variety	Leaf colour
2. Shrubs	
Sorbus thuringiaca 'Fastigiata'	underside
Tilia tomentosa und varieties	shoots/underside



Plants with leaf colours other than green 19

4. White or grey tomentose leaves

Genus/species/variety	Colour of shoots
2. Shrubs	
Erica tetralix in varieties	shoots/underside
Hamamelis mollis	underside
Hippophae rhamnoides	both sides
Hydrangea sargentiana	shoots/underside
Lavandula angustifolia in varieties	shoots/underside
Lycium barbarum	both sides
Perovskia abredanoides	both sides
Potentilla fruticosa mandshurica	both sides
Salix acutifolia 'Pendulifolia'	underside
Salix aurita	underside
Salix caprea in varieties	underside
Salix cinerea	shoots/underside

5. Blue and blue-green to silver-grey foliage (blue needles, silvery blue, blue-green or grey)

The blue colours, especially on the needles of conifers, are caused by a dense wax coating that makes the green leaf organs appear strong blue or silvery blue. The colours are most intense on one-year shoots in full sunlight

Genus/species/variety	Leaf/needle colour
1. Deciduous plants	
Berberis - evergreen species and varieties	only leaf underside, blue, grey/blue
Buxus sempervirens 'Blauer Heinz'	blue/bluish green
Rosa glauca	shoots bluish red, then blue-green
Salix acutifolia 'Pendula'	blue underneath
Salix daphnoides and varieties	blue underneath
Salix fragilis	blue underneath
Salix purpurea and varieties	blue underneath

Genus/species/variety	Leaf/needle colour
2. Conifers	
Abies concolor	bluish grey
Abies koreana	silvery white underneath
Abies procera 'Glauca'	silvery-blue/blue
Abies veitchii	bluish white underneath
Cedrus atlantica in varieties	silvery-blue
Cedrus deodara 'Pendula'	blue-green
Chamaecyparis lawsoniana 'Alumii'	blue/bluish green
Chamaecyparis lawsoniana 'Colummaris'	bluish grey
Chamaecyparis lawsoniana 'Colummaris Glauca'	blue to blue-green
Chamaecyparis lawsoniana 'Spek'	blue to blue-green
Chamaecyparis lawsoniana 'Tharandtensis Caesia'	blue-green
Chamaecyparis pisifera 'Boulevard'	silvery-blue
Juniperus chinensis 'Blue Alps'	silvery-blue
Juniperus communis 'Hibernica'	grey-blue
Juniperus communis 'Suecica'	grey-blue
Juniperus horizontalis 'Andorra Compact'	grey-green/blue
Juniperus horizontalis 'Wiltonii'	intense blue
Juniperus chinensis 'Blaauw'	bluish grey
Juniperus media 'Hetzii'	bluish grey
Juniperus sabina 'Rockery Gem'	blue-green
Juniperus sabina 'Tamariscifolia'	blue-green
Juniperus scopulorum 'Wichita Blue'	grey, silver
Juniperus squamata 'Blue Carpet'	intense blue

Genus/species/variety	Colour of shoots
Salix daphnoides	underside
Salix elaeagnos	shoots/underside
Salix hastata 'Wehrhahnii'	underside
Salix lanata	both sides
Salix repens argentea	both sides
Salix rosmarinifolia	shoots/underside
Salix smithiana	underside
Salix viminalis	underside
Viburnum burkwoodii	underside
Viburnum carlcephalum	underside
Viburnum carlesii	underside
Viburnum lantana	shoots/underside
Viburnum rhytidophyllum	underside

Genus/species/variety	Leaf/needle colour
Juniperus squamata 'Blue Star'	intense silvery blue
Juniperus squamata 'Meyeri'	silvery blue
Juniperus virginiana 'Glauca'	grey
Juniperus virginiana 'Grey Owl'	grey
Juniperus scopulorum 'Skyrocket'	grey/blue-green
Picea abies 'Pumila Glauca'	blue-green/green
Picea glauca 'Echiniformis'	blue-green
Picea pungens 'Edith'	blue-grey
Picea pungens glauca	blue to blue-grey
Picea pungens 'Glauca Globosa'	silvery blue
Picea pungens 'Hoopsii'	intense blue to silvery blue
Picea pungens 'Koster'	bluish green/silvery blue
Picea pungens 'Oldenburg'	silvery blue
Pinus cembra	blue-green
Pinus monticola 'Ammerland'	silvery blue
Pinus monticola 'Skyline'	blue-green
Pinus parviflora 'Glauca'	silvery blue
Pinus parviflora 'Negishi'	grey-blue
Pinus peuce	bluish grey
Pinus pumila 'Glauca'	grey/blue-green
Pinus schweberinii	blue-green
Pinus strobus	blue-green
Pinus strobus 'Macopin'	blue-green
Pinus strobus 'Radiata'	blue-green
Pinus sylvestris	grey-green
Pinus sylvestris 'Fastigiata'	blue-green
Pinus sylvestris 'Norske Typ'	bluish grey
Pinus sylvestris 'Watereri'	grey/blue-green
Pinus wallichiana	blue-green
Pinus wallichiana 'Densa Hill'	blue-green
Pseudotsuga menziesii caesia	grey-green
Sequoiadendron giganteum 'Glaucum'	blue to blue-grey
Tsuga mertensiana	grey/blue-green
Tsuga mertensiana 'Glauca'	silvery-blue





20 Plants that shoot early

Plants that shoot early in the year not only create a first atmosphere of spring, they also fulfill an important function in urban areas. Normally, plants in central Europe have foliage from the beginning/middle of May to the middle/end of October (including autumn colours), i.e. for some five to six months. Plants that shoot late—from the end of May to the beginning of June—only have foliage for four months. As the species that shoot especially early shorten the bare winter period considerably, these plants play an essential role. No exactly defined shooting period can be given since the early shooting plants are able to start developing their leaves several weeks early when early spring is mild.

Note:

Leaves that appear before the last late frost in the first third of May can be damaged by the frost. Indigenous plants are well adapted, and their leaves are seldom destroyed. Even when the shoots are killed by frost in April, the plants form new shoots after a short time, leaving not a trace of the original damage. This does not, however, apply for the flowers.

1. Deciduous trees	Genus/species/variety	Shoots	Colour of shoots
	Aesculus flava varieties	.IV	light green
	Acer platanoides	.IV	green
	Acer rubrum	.IV	bronze-red
	Betula species and varieties	.IV	light green
	Cercidiphyllum japonicum	.E IV	red
	Malus toringo sargentii, seedling	.IV	green
	Populus balsamifera	.E IV	yellow-green
	Populus berolinensis	.E IV	yellow-green
	Populus canadensis varieties	.IV	bronze-red
	Populus nigra varieties	.B VI/E V	yellow-green
	Populus simonii	.B III/E IV	green
	Prunus padus	.B III/E IV	light green
	Pterocarya fraxinifolia	.IV	green
	Pyrus species and varieties	(B III) E IV	green silvery
	Salix alba 'Tristis'	.E IV	yellow-green

2. Shrubs	Genus/species/variety	Shoots	Colour of shoots
	Acanthopanax sieboldianus	.E IV	green
	Aesculus parviflora	.B IV	bronze-red
	Amelanchier species and varieties	.IV	silvery-grey to red
	Berberis thunbergii varieties	.B III/E IV	green
	Buddleja davidii varieties	.E IV	silvery
	Caragana arborescens	.E IV	light green
	Chaenomeles species and varieties	.E IV	bronze-red
	Cotoneaster species and varieties	.E IV	grey-green
	Crataegus laevigata varieties	.IV	green
	Crataegus monogyna varieties	.E IV	green
	Crataegus coccinea	.E IV	green
	Cytisus beanii	.IV	green
	Cytisus kewensis	.IV	grey-green
	Decaisnea fargesii	.IV	grey-green
	Deutzia gracilis	.E IV	green
	Euonymus europaeus	.E IV	green
	Euonymus planipes	.E IV	green
	Heptacodium miconioides	.IV	green
	Hydrangea arborescens varieties	.IV	green
	Hydrangea hybrids varieties	.B III/E IV	green
	Kerria japonica varieties	.E IV	green
	Ligustrum species and varieties	.E IV	green
	Lonicera species and varieties	.B III/E IV	green
	Malus species and varieties	.IV	red
	Paeonia suffruticosa varieties	.B III/E IV	bronze-red
	Philadelphus hybrids	.IV	grey-green
	Pieris japonica varieties	.IV	red
	Potentilla fruticosa varieties	.B III/E IV	silvery-green
	Prunus - red-leaf varieties	.IV	black-red

Explanation of symbols: I-XII = Month from January to December / B = beginning of the month / E = end of the month



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2. Shrubs	Genus/species/variety	Shoots	Colour of shoots
	Prunus species and varieties	.IV	green
	Rhodotypos scandens	.IV	green
	Ribes species and varieties	.B III/E IV	green
	Rosa species and varieties	.B III/E IV	red or green
	Rosa glauca	.IV	bläulich
	Rubus caesius	.E IV	green
	Salix alba 'Kermesina'	.IV	green-yellow
	Salix balsamifera mas.	.E IV	light green
	Sambucus nigra	.B III/E IV	bronze-red
	Sambucus racemosa varieties	.IV	bronze-red
	Sorbaria sorbifolia	.B III/E IV	green to red
	Spiraea species and varieties	.B III/E IV	many colours
	Stephanandra species and varieties	.IV	green
	Symphoricarpos species and varieties	.IV	green
	Syringa species and varieties	.IV	green
	Viburnum lantana	.IV	grey
	Vinca species and varieties	.B III/E IV	green

3. Climbers	Genus/species/variety	Shoots	Colour of shoots
	Clematis species and varieties	.IV	green or red
	Hydrangea petiolaris	.IV	green
	Jasminum nudiflorum	.IV	green
	Lonicera species and varieties	.B III/E IV	green or grey
	Parthenocissus species and varieties	.IV	bronze-red

4. Conifers	Genus/species/variety	Shoots	Colour of shoots
	Cedrus deodara varieties	.IV	green
	Larix decidua	.E IV	light green
	Larix kaempferi varieties	.IV	blue-green
	Metasequoia glyptostroboides	.IV	light green

Explanation of symbols: I-XII = Month from January to December / B = beginning of the month / E = end of the month

Plants that shoot late 21

Late-shooting plants form their leaf organs from the second half of May on, sometimes not until the beginning of June depending on the weather, some six to eight weeks later than the plants that shoot early. The delayed leaf development is not to be seen as a disadvantage in all cases: on benches in urban parks, the park visitors are hungry for sun in spring and thankful that the first rays are not blocked until the summer heat sets in. Along similar lines, the same could be said for trees near buildings, for the sun penetrates the rooms in the transitional seasons but are prevented from entering in summer by the foliage. Late-shooting plants are seldom damaged by late frost although occasional leaf loss that was subsequently compensated for has been observed. The new shoots are green as a rule; colourful mixtures as seen among the early-shooting plants are rare.

Note:

Only summer green plants are listed as the effect of late shoots has no considerable importance for the use and planning with ever-green deciduous trees and conifers.

Genus/species/variety	Colour of shoots	Genus/species/variety	Colour of shoots
1. Trees		Juglans cinerea	reddish-green
Ailanthus altissima	bronze-red	Juglans nigra	
Castanea sativa	light green	Juglans regia	aromatic
Catalpa bignonioides	very late, end of May	Liquidambar styraciflua	light green
Crataegus lavallei 'Carrier'	green	Nyssa sylvatica	light green
Euodia hupehensis	light green	Platanus acerifolia	grey
Fraxinus species and varieties	light green	Prunus serotina	light green
Ginkgo biloba	light green	Quercus species and varieties	light green or reddish
Gleditsia triacanthos varieties		Robinia species and varieties	
Gymnocladus dioicus	bronze-red	Sophora japonica varieties	grey-green





21 Plants that shoot late

Genus/species/variety	Colour of shoots
2. Shrubs	
Callicarpa bodinieri varieties	
Chionanthus virginicus	
Clethra alnifolia	light green
Cotinus coggygria varieties	red to black-red
Hibiscus syriacus	light green
Hydrangea quercifolia	grey-green

22 Plants with autumn colours

The decomposition of chlorophyll in autumn leaves behind xanthophyll and carotene, which are not dissolved. They cause the yellow or orange hues. The red pigments are due to anthocyanine, which is created in autumn by the changes in metabolism in the leaves. The tendency to autumn colours is genetic. Plants that lose their green or grey leaves cannot be brought to produce spectacular colours under even the most favourable conditions.

Note: Autumn colours do not have set limits, but rather are determined by local conditions. Sunny areas further the colours, while the colours are very modest in the shade. The colours are enhanced in autumn by warm, sunny days followed by cool nights. The colours may sometimes be sparse if the autumn days are regularly mild and rainy. Colouring time depends on the weather and thus varies. The sequence of colour development is, however, almost always the same. *Acer rubrum*, for instance, principally turns colour first, followed by *Parthenocissus quinquefolia* in second position; this can happen in the last week of August or as late as mid-September. The other plants then follow with some delay.

Genus/species/variety	Main colour
1. Large trees	
<i>Acer freemanii</i> 'Autumn Blaze'	orange-red
<i>Acer platanoides</i>	yellow, orange
<i>Acer pseudoplatanus</i> varieties	yellow
<i>Acer saccharinum</i>	yellow, green-yellow
<i>Acer saccharum</i>	yellow, orange
<i>Aesculus hippocastanum</i>	yellow
<i>Betula</i> species	yellow
<i>Castanea sativa</i>	yellow, yellow-brown
<i>Fagus sylvatica</i> varieties	yellow-orange, yellow-brown
<i>Fraxinus pennsylvanica</i> 'Cimmzam'	red, orange
<i>Gleditsia triacanthos</i>	yellow-green
<i>Juglans nigra</i>	yellow
<i>Liriodendron tulipifera</i>	yellow, yellow-brown
<i>Pterocarya fraxinifolia</i>	yellow-green
<i>Populus nigra</i>	yellow
<i>Quercus robur</i>	yellow-brown
<i>Quercus rubra</i>	orange-red
<i>Tilia cordata</i>	yellow
<i>Tilia platyphyllos</i>	yellow
<i>Tilia europaea</i>	yellow
<i>Ulmus</i> species and varieties	yellow
2. Medium-size trees	
<i>Acer campestre</i>	yellow, yellow-orange
<i>Acer cappadocicum</i> varieties	yellow
<i>Acer freemanii</i> 'Armstrong'	orange-red
<i>Acer freemanii</i> 'Celzam'	red, yellow
<i>Acer platanoides</i> varieties	yellow
<i>Acer platanoides</i> - red-foliage varieties	bronze-red
<i>Acer rubrum</i> varieties	red, orange
<i>Acer saccharinum</i> 'Wierl'	yellow, yellowish green
<i>Aesculus flava</i> varieties	yellow, orange
<i>Alnus spaethii</i>	violet-red, bronze
<i>Betula</i> species and varieties	yellow
<i>Carpinus betulus</i> varieties	yellow
<i>Cercidiphyllum japonicum</i>	yellow, yellow-orange
<i>Corylus colurna</i>	yellow

Genus/species/variety	Colour of shoots
<i>Lespedeza thunbergii</i>	light green
<i>Ptelea trifoliata</i>	light green, aromatic
3. Climbers	
<i>Campsis</i> species and varieties	bronze-red
<i>Celastrus orbiculatus</i>	light green

Genus/species/variety	Main colour
<i>Euodia hupehensis</i>	yellow
<i>Fagus sylvatica</i> varieties	yellow-orange, yellow-brown
<i>Fraxinus americana</i> 'Autumn Purple'	red, violet
<i>Fraxinus americana</i> 'Skyline'	orange-red
<i>Fraxinus angustifolia</i> 'Raywood'	violet-brown
<i>Fraxinus pennsylvanica</i> 'Patmore'	yellow
<i>Fraxinus pennsylvanica</i> 'Summit'	yellow
<i>Gymnocladus dioica</i>	yellow
<i>Liquidambar styraciflua</i>	dark red, red, orange
<i>Liquidambar styraciflua</i> 'Moraine'	violet, yellow
<i>Nyssa sylvatica</i>	yellow, orange
<i>Ostrya carpinifolia</i>	yellow
<i>Phellodendron amurense</i>	yellow
<i>Populus tremula</i>	yellow, yellow-orange
<i>Prunus avium</i>	yellow, orange
<i>Pyrus calleryana</i> varieties	orange-red, red
<i>Quercus coccinea</i>	red, orange
<i>Quercus palustris</i>	yellow-orange
<i>Quercus palustris</i> 'Green Pillar'	red
<i>Sorbus aucuparia</i>	yellow-orange, red
<i>Sorbus domestica</i>	orange-red
<i>Tilia</i> species and varieties	yellow
<i>Tilia henryana</i>	yellow
<i>Zelkova serrata</i> varieties	red, orange, yellow
3. Small trees	
<i>Acer buergerianum</i>	orange-yellow, red
<i>Acer campestre</i> 'Elsrijk'	yellow
<i>Acer campestre</i> varieties	yellow
<i>Acer ginnala</i>	red, orange
<i>Acer griseum</i>	red
<i>Acer palmatum</i>	red
<i>Acer monspessulanum</i>	yellow, red
<i>Acer japonicum</i> varieties	orange, red
<i>Acer pensylvanicum</i>	yellow
<i>Acer rufrinerve</i>	orange, red
<i>Acer rubrum</i>	red, orange
<i>Acer neglectum</i> 'Annae'	yellow, yellow-orange



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Genus/species/variety	Main colour
<i>Acer tataricum</i>	red, yellow
<i>Aesculus carnea</i> 'Briotii'	yellow
<i>Amelanchier laevis</i>	yellow-orange
<i>Amelanchier lamarckii</i>	orange, yellow
<i>Aralia elata</i> varieties	yellow-orange
<i>Catalpa bignonioides</i> varieties	yellow
<i>Cercidiphyllum japonicum</i>	yellow, yellow-orange
<i>Cornus alternifolia</i>	violet-red, yellow
<i>Cornus controversa</i>	violet
<i>Cornus florida</i>	bronze-red
<i>Cornus kousa</i> varieties	orange-red
<i>Crataegus monogyna</i>	blood-red, yellow
<i>Crataegus coccinea</i>	yellow-orange
<i>Crataegus crus galli</i>	orange-red
<i>Fagus sylvatica</i> 'Purpurea Pendula'	orange-brown
<i>Fraxinus americana</i> 'microcarpa'	violet, yellow
<i>Fraxinus americana</i> 'Autumn Applause'	red
<i>Koeleruteria paniculata</i>	yellow-orange
<i>Liquidambar styraciflua</i> 'Gum Ball'	red, yellow
<i>Liquidambar styraciflua</i> 'Slender Silhouette'	red, orange
<i>Malus hybridus</i>	yellowish
<i>Malus tschonoskii</i>	red-orange, red
<i>Nothofagus antarctica</i>	yellow, green-yellow
<i>Parrotia persica</i>	red, yellow-orange
<i>Phellodendron amurense</i>	yellow
<i>Prunus hillieri</i> 'Spire'	orange, red
<i>Prunus maackii</i> varieties	orange-yellow
<i>Prunus padus</i>	yellow, orange
<i>Prunus sargentii</i>	orange-red
<i>Prunus serrulata</i> varieties	yellow-orange
<i>Pyrus calleryana</i> varieties	orange-red, red
<i>Pyrus communis</i> varieties	orange-yellow, red-violet
<i>Pyrus nivalis</i>	red
<i>Quercus palustris</i> 'Green Dwarf'	red, yellow
<i>Rhus</i> species and varieties	orange, red
<i>Sorbus</i> species and varieties	orange-red
<i>Stewartia pseudocamellia</i>	yellow-orange, red
<i>Tilia mongolica</i>	yellow
4. Large shrubs	
<i>Acer ginnala</i>	red, orange
<i>Acer japonicum</i> 'Aconitifolium'	orange-red
<i>Acer palmatum</i>	red
<i>Acer rufrinerve</i>	orange-red
<i>Aesculus parviflora</i>	yellow
<i>Amelanchier</i> species and varieties	yellow-orange
<i>Aralia elata</i> species and varieties	yellow-orange
<i>Berberis ottawensis</i> varieties	red
<i>Cornus alternifolia</i>	violet-red to yellow
<i>Cornus controversa</i>	violet bronze-red, yellow
<i>Cornus florida</i>	red-brown
<i>Cornus kousa</i>	orange-red
<i>Cornus nuttallii</i>	yellow-orange, red
<i>Cornus officinalis</i>	red
<i>Cornus sanguinea</i>	blood-red
<i>Corylus avellana</i>	yellow, yellow-orange
<i>Cotinus coggygria</i> varieties	orange-red
<i>Cotoneaster bullatus</i>	orange-yellow, red
<i>Crataegus laevigata</i> varieties	bronze-red
<i>Crataegus monogyna</i>	blood-red, yellow
<i>Crataegus coccinea</i>	yellow-orange
<i>Crataegus crus galli</i>	orange-red
<i>Euonymus europaeus</i>	bronze-red, red
<i>Euonymus planipes</i>	orange, red, pink
<i>Hamamelis</i> species and varieties	yellow to orange-red
<i>Mespilus germanica</i>	yellow-brown
<i>Nothofagus antarctica</i>	green-yellow, yellow
<i>Parrotia persica</i>	red, orange-yellow
<i>Photinia villosa</i>	red

Genus/species/variety	Macolour
<i>Prunus</i> species and varieties	orange-red
<i>Ptelea trifoliata</i>	yellowish green, yellow
<i>Rhus typhina</i>	orange, red
<i>Salix triandra</i>	yellow
<i>Sorbus</i> species and varieties	orange-red
<i>Styrax japonicus</i>	red
<i>Viburnum lantana</i>	green-yellow, red
<i>Viburnum opulus</i>	orange-red, yellow

5. Shrubs	
<i>Berberis ottawensis</i> 'Superba'	orange
<i>Berberis thunbergii</i>	yellow-orange, red
<i>Berberis thunbergii</i> 'Atropurpurea' varieties	orange, red
<i>Berberis vulgaris</i>	yellow-orange, red
<i>Corylopsis spicata</i>	yellow
<i>Cotinus coggygria</i> 'Royal Purple'	red
<i>Cotoneaster</i> species and varieties	yellow-orange, red
<i>Enkianthus campanulatus</i>	yellow-orange, red
<i>Euonymus alatus</i>	red
<i>Euonymus yedoensis</i>	pink, red
<i>Euonymus phellomanus</i>	orange
<i>Fothergilla major</i>	yellow-orange, red
<i>Hydrangea quercifolia</i>	orange-red
<i>Rhododendron</i> hybrids (Azaleen)	orange-red, red, yellow
<i>Rhus typhina</i> 'Dissecta'	red-orange
<i>Salix sachalinensis</i> 'Sekka'	yellow-green, yellow
<i>Spiraea</i> species and varieties	violet-brown, brown-red
<i>Syringa</i> species and varieties	crimson
<i>Viburnum bodnantense</i> varieties	bronze-red
<i>Viburnum farreri</i>	blood-red
<i>Viburnum plicatum</i> varieties	violet-red, orange

6. Small shrubs	
<i>Aronia</i> species and varieties	red, orange
<i>Corylopsis pauciflora</i>	yellow
<i>Cotoneaster horizontalis</i>	red
<i>Fothergilla gardenii</i>	yellow-orange, orange-red, red
<i>Kerria japonica</i>	yellow
<i>Spiraea</i> species and varieties	violet-red, orange
<i>Stephanandra</i> species and varieties	yellow
<i>Syringa</i> species and varieties	crimson
<i>Vaccinium</i> species and varieties	yellow, orange

7. Dwarf shrubs	
<i>Berberis thunbergii</i> 'Atropurpurea'	orange-red
<i>Cotoneaster adpressus</i>	red
<i>Cotoneaster praecox</i>	red
<i>Spiraea</i> species and varieties	violet-red, orange

8. Climbers	
<i>Actinidia arguta</i>	yellow
<i>Actinidia chinensis</i>	yellow-brown
<i>Campsis</i> species and varieties	yellow-green, yellow
<i>Celastrus orbiculatus</i>	yellow
<i>Clematis</i> species and varieties	pale yellow
<i>Hydrangea petiolaris</i>	yellow
<i>Parthenocissus quinquefolia</i> varieties	red
<i>Parthenocissus tricuspidata</i> 'Veitchii'	red-orange
<i>Rubus caesius</i>	orange-red
<i>Rubus fruticosus</i>	orange-red
<i>Vitis coignetia</i>	orange-red

9. Conifers	
<i>Ginkgo biloba</i>	yellow
<i>Larix decidua</i>	yellow
<i>Larix kaempferi</i> varieties	yellow, yellow-orange
<i>Metasequoia glyptostroboides</i>	orange-brown
<i>Pseudolarix amabilis</i>	yellow
<i>Taxodium distichum</i>	orange-brown, orange





23 Evergreen broad-leaf plants

In this table, evergreen plants are listed. The leaves stay on the plants during winter. In very exposed areas and when winter temperatures fall below -15°C, some species can lose some or all of their leaves. These are listed as, nearly evergreen.

Note: All evergreen plants can suffer when a long frost period occurs. It is essential that evergreens be thoroughly watered in late autumn and that the moisture content of the soil be checked during the mild phases of winter.

Genus/species/variety	Nearly evergreen	evergreen
1. Small trees		
Ilex aquifolium varieties	+	+
Quercus turneri 'Pseudoturineri'	+	
2. Large shrubs		
Bamboo species and varieties		+
Berberis julianae		+
Buxus sempervirens varieties	+	+
Cotoneaster salicifolius in varieties	+	+
Cotoneaster watereri varieties	+	+
Ilex altaclarensis varieties		+
Ilex aquifolium varieties		+
Ligustrum ovalifolium	+	+
Ligustrum vulgare varieties	+	+
Magnolia grandiflora 'Blanchard'		+
Prunus laurocerasus varieties		+
Prunus lusitana varieties		+
Prunus lusitanica		+
Pyracantha species and varieties	+	
Rhododendron species and varieties		+
Stranvaesia davidiana		+
3. Shrubs		
Aucuba japonica varieties		+
Bamboo species and varieties		+
Berberis species and varieties	+	+
Cotoneaster franchetii	+	
Cotoneaster sternianus	+	
Elaeagnus multiflora	+	
Hedera helix 'Arborescens'		+
Ilex aquifolium varieties		+
Ilex crenata varieties		+
Ilex meserveae varieties		+
Kalmia latifolia varieties		+
Mahonia bealei		+
Osmanthus heterophyllus		+
Photinia fraseri 'Red Robin'		+
Pieris japonica varieties		+
Prunus laurocerasus varieties		+
Pyracantha species and varieties	+	
Rhododendron species and varieties		+
Rubus fruticosus	+	
Viburnum burkwoodii	+	
Viburnum 'Pragense'	+	+
4. Small shrubs		
Bamboo species and varieties		+

Genus/species/variety	Nearly evergreen	evergreen
Berberis species and varieties		+
Ceanothus species and varieties	+	
Cotoneaster species and varieties	+	+
Daphne burkwoodii	+	
Elaeagnus ebbingei	+	+
Elaeagnus pungens varieties		+
Escallonia species and varieties	+	+
Euonymus fortunei varieties		+
Hypericum 'Hidcote'	+	
Hypericum patulum henryi	+	
Ilex crenata varieties		+
Ilex meserveae varieties		+
Kalmia angustifolia varieties		+
Kalmia latifolia varieties		+
Ledum palustre		+
Leucothoe walteri		+
Lonicera japonica repens	+	
Lonicera pileata	+	+
Lonicera nitida varieties	+	+
Mahonia aquifolium varieties		+
Pernettya mucronata varieties		+
Photinia fraseri 'Red Robin'		+
Pieris floribunda		+
Pieris japonica varieties		+
Prunus laurocerasus varieties		+
Rhododendron species and varieties	+	+
Skimmia japonica varieties		+
Viburnum tinus		+
5. Dwarf shrubs		
Arctostaphylos uva-ursi		+
Berberis species and varieties	+	+
Calluna vulgaris varieties		+
Cotoneaster dammeri varieties	+	+
Cotoneaster microphyllus varieties		+
Cotoneaster salicifolius varieties	+	+
Daboecia species and varieties		+
Daphne cneorum		+
Empetrum nigrum		+
Erica species and varieties		+
Euonymus fortunei varieties		+
Gaultheria species and varieties		+
Hebe ochracea		+
Hypericum moserianum	+	
Lavandula angustifolia varieties		+
Ligustrum vulgare 'Lodense'	+	
Pachysandra terminalis		+



Evergreen broad-leaf plants 23

Genus/species/variety	Nearly evergreen	evergreen
Rhododendron species and varieties	+	+
Rubus calycinoideus	+	+
Vaccinium macrocarpon		+
Vaccinium vitis-idaea		+
Viburnum davidii		+
Vinca species and varieties		+

6. Climbers		
Akebia quinata	+	
Euonymus fortunei varieties		+
Hedera colchica varieties		+

Genus/species/variety	Nearly evergreen	evergreen
Hedera helix varieties		+
Lonicera japonica repens	+	
Lonicera henryi		+
Lonicera japonica varieties	+	+
Rubus fruticosus	+	
Rubus henryi		+

7. Conifers		
All, except Ginkgo, Larix, Metasequoia, Pseudolarix and Taxodium		

Plants that form runners 24

Subterranean runners are a form of vegetative propagation for plants. Numerous plants use this means of expanding, though it is not always clear whether runners can be formed anywhere, whether the roots have to have been mechanically damaged beforehand such as by digging, or whether runners are only formed under certain climatic conditions. Runners are characteristic of species; Corylus avellana seldom forms them while Cornus sanguinea forms them regularly at up to 100 per m². "Runners" is the collective term for root suckers. Shoots that spread above ground and take root on contact with the soil, such as those of Salix, are called layers.

1. Trees	Genus/species/variety	Distance from centre in m	Type of runners
	Ailanthus altissima	.8 - 12 m	unhindered, like thickets
	Alnus incana	4 - 7 m	like clumps
	Aralia elata and varieties	2 - 4 m	single
	Cercis siliquastrum	.2 - 3 m	like clumps
	Gymnocladus dioica	.2 - 6 m	like thickets
	Hippophae rhamnoides	2 - 8 m	like thickets, rampant
	Liquidambar styraciflua	1 - 2 m	single, rare
	Malus hybrid varieties	1 - 4 m	like clumps
	Malus sylvestris	2 - 4 m	single to nest-like
	Populus alba and varieties	.6 - 15 m	spread afar to thicket-like
	Populus berolinensis	4 - 6 m	like clumps
	Populus canadensis	.6 - 10 m	single
	Populus nigra and varieties	.6 - 8 m	like clumps
	Populus tremula and varieties	10 - 18 m	forest-like, rampant
	Prunus avium	.12 - 16 m	like nests, numerous
	Prunus padus	.6 - 12 m	like nests, in handreds
	Pyrus communis	.2 - 6 m	like thickets
	Pterocarya fraxinifolia	.4 - 12 m	like thickets, in thousands
	Rhus glabra	1 - 4 m	like thickets
	Rhus typhina and varieties	1 - 8 m	like thickets
	Robinia pseudoacacia varieties	1 - 25 m	like thickets, in handreds
	Sorbus aucuparia	2 - 4 m	single
	Sorbus torminalis	.6 - 8 m	like clumps
	Ulmus carpinifolia	.4 - 10 m	like clumps
	Ulmus laevis	.4 - 6 m	like clumps
2. Shrubs	Genus/species/variety	Distance from centre in m	Type of runners
	Acanthopanax sieboldianus	.05 - 1 m	like clumps
	Aesculus parviflora	2 - 4 m	like thickets, rampant
	Amelanchier ovalis	1 - 2 m	single/like clumps
	Aralia elata and varieties	.2 - 4 m	single
	Aronia melanocarpa	.05 - 1 m	like thickets





24 Plants that form runners



Characteristics of the root system of the trees 25

Genus/species/variety	Distance from centre in m	Type of runners
Berberis vulgaris	1 - 1,5 m	like clumps
Chaenomeles species and varieties	0,2 - 2 m	like clumps
Cornus canadensis	0,2 - 0,4 m	like nests
Cornus sanguinea	1 - 5 m	like thickets
Cornus stolonifera 'Flaviramea'	1 - 2 m	like thickets
Corylus avellana	0,5 - 1 m	single
Elaeagnus commutata	1 - 5 m	like thickets, rampant
Euonymus europaeus	1 - 3 m	single
Fothergilla gardenii	0,5 - 1,2 m	like thickets
Gaultheria procumbens	0,2 - 0,4 m	like nests
Gaultheria shallon	0,5 - 1 m	like thickets, rampant
Hippophae rhamnoides	2 - 8 m	like thickets, rampant
Hydrangea arborescens varieties	0,5 - 1 m	like clumps
Hydrangea quercifolia	1 - 1,5 m	single
Hypericum calycinum	0,2 - 1 m	like nests, rampant
Myrica gale	0,5 - 1,2 m	like thickets
Kerria japonica	0,5 - 1 m	like lawns, rampant
Mahonia aquifolium	0,2 - 0,5 m	single
Pachnigsandra fernalis varieties	0,2 - 0,5 m	like nests
Pachysandra terminalis	0,3 - 0,8 m	like thickets
Phyllostachys species and varieties	0,5 - 8 m	like clumps and like thickets
Prunus spinosa	2 - 10 m	like thickets
Prunus tenella and varieties	0,5 - 1,5 m	like thickets
Pseudosasa japonica	0,5 - 1,5 m	like thickets
Robinia hispida	0,5 - 2 m	like clumps
Rosa blanda	0,5 - 2 m	like thickets
Rosa canina	1 - 2 m	like clumps
Rosa carolina	0,5 - 2 m	like thickets, rampant
Rosa gallica	0,5 - 6 m	like thickets, rampant
Rosa nitida	0,2 - 1 m	like thickets, rampant
Rosa pimpinellifolia	0,1 - 2 m	like thickets, rampant
Rosa rugotida	0,5 - 2 m	like thickets, rampant
Rosa rugosa	0,5 - 2 m	like thickets, rampant
Rubus idaeus	0,2 - 2 m	like clumps
Sambucus canadensis varieties	1 - 1,5 m	single
Sasa palmata	0,5 - 1,5 m	like thickets
Sasa veitchii	0,5 - 2 m	like thickets, extremely rampant
Sorbaria sorbifolia	0,2 - 2 m	like thickets, rampant
Symphoricarpos albus laevigatus	0,2 - 2 m	like thickets
Syringa vulgaris	0,5 - 2 m	like thickets
Ulex europaeus	0,5 - 2 m	like thickets
Vaccinium corymbosum	0,5 - 1 m	like clumps
Vaccinium vitis - idaea varieties	0,1 - 0,3 m	like nests
Viburnum farreri	0,5 - 1,5 m	like clumps

3. Climbers

Genus/species/variety	Distance from centre in m	Type of runners
Akebia quinata	0,5 - 2 m	like clumps, rampant
Celastrus orbiculatus	1 - 2 m	like clumps
Lonicera japonica varieties	0,5 - 1 m	like clumps
Lonicera periclymenum	0,5 - 1 m	like clumps

Knowledge of the root characteristics of plants is very limited and also controversial. It is thus understandable that the following table cannot provide sufficient, certain answers to all questions. The shape of the roots is genetically determined; one makes distinctions between shallow, cordate, and deep roots, though mixed forms occur in nature. It is not at all true that the root system has the same shape and spread as the branches above ground. If that were true, the spruce would have to have deep roots with a conical structure; in fact, it has shallow roots with a few individual deep roots. The root structures of nursery cultivated plants do not exactly correspond to their natural roots in the wild. Regular training produces a unified root ball, allowing the plants to be prepared for transport and transplanting so they can survive easily. Once they have reached their final destination, they can be expected to develop the type of root characteristic of their species, though not quite as completely as in the wild. All interference around the rooted area should remain limited; the resistance qualities listed should not be taken as a license to dig freely into the root system. For further tips, see the species descriptions.

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
1. Large trees (Trees 1st order)					
Acer platanoides varieties	shallow/cordate	possible	possible	tolerant	observed
Acer pseudoplatanus varieties	deep	rare	quite tolerant	tolerant	frequent
Acer saccharinum and varieties	extremely shallow	strong	quite tolerant	sensitive	preferred
Acer saccharum	shallow	possible	---	tolerant	---
Aesculus hippocastanum	shallow, far	strong	sensitive	sensitive	preferred
Ailanthus altissima	shallow	strong	sensitive	sensitive	frequent
Alnus glutinosa	shallow	rare	possible	tolerant	frequent
Betula maximowicziana	shallow/cordate	strong	sensitive	sensitive	---
Betula papyrifera	shallow	possible	sensitive	sensitive	---
Betula pendula	extremely shallow	strong	not possible	sensitive	rare
Castanea sativa	deep, dense	rare	possible	---	---
Celtis australis	deep	possible	---	sensitive	---
Fagus sylvatica varieties	shallow/cordate	possible	not possible	sensitive	never
Fraxinus excelsior varieties	deep, far	rare	possible	tolerant	frequent
Gleditsia triacanthos	shallow	rare	possible	tolerant	---
Gymnocladus dioicus	cordate/deep	possible	sensitive	sensitive	---
Juglans cinerea	deep	possible	---	tolerant	---
Juglans nigra	extremely deep	strong	possible	sensitive	rare
Liriodendron tulipifera	shallow	possible	sensitive	sensitive	---
Platanus acerifolia	cordate	strong	quite tolerant	tolerant	frequent
Platanus acerifolia varieties	deep	strong	possible	sensitive	frequent





25 Characteristics of the root system of the trees

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
Platanus orientalis	cordate	strong	possible	tolerant	frequent
Populus species and varieties	shallow	strong	quite tolerant	tolerant	preferred
Quercus cerris	deep	rare	possible	tolerant	observed
Quercus frainetto	deep	---	---	---	---
Quercus petraea	deep	rare	possible	tolerant	frequent
Quercus robur	deep	rare	possible	tolerant	frequent
Quercus rubra	shallow	strong	sensitive	sensitive	frequent
Robinia pseudoacacia varieties	shallow, far	strong	slight	tolerant	never
Salix alba varieties	shallow	strong	quite tolerant	tolerant	preferred
Tilia species and varieties	cordate, intense	strong	slight	tolerant	never
Ulmus carpinifolia	shallow/deep	strong	possible	tolerant	observed
Ulmus laevis	deep	rare	sensitive	sensitive	possible
2. Medium-size Trees (Trees 2nd order)					
Acer campestre and varieties	cordate	rare	possible	tolerant	rare
Acer freemanii and varieties	cordate	possible	---	---	frequent
Acer negundo and varieties	shallow	possible	sensitive	sensitive	frequent
Acer platanoides varieties	shallow/cordate	possible	possible	tolerant	observed
Acer rubrum and varieties	shallow	possible	sensitive	sensitive	observed
Acer saccharinum 'Wieri'	extremely shallow	strong	quite tolerant	sensitive	preferred
Aesculus flava 'Vestita'	cordate	---	---	sensitive	---
Alnus cordata	shallow	rare	possible	---	---
Alnus incana	shallow	possible	possible	tolerant	preferred
Alnus spaethii	shallow	---	---	---	---
Betula ermanii	shallow	strong	sensitive	sensitive	---
Betula nigra	shallow, dense	possible	sensitive	sensitive	rare
Betula pubescens	shallow/cordate	---	possible	tolerant	---
Betula jaquemontii	shallow	strong	sensitive	sensitive	---
Carpinus betulus varieties	cordate, intense	rare	slight	sensitive	---



Characteristics of the root system of the trees 25

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
Cercidiphyllum japonicum	shallow/cordate	strong	---	---	---
Corylus columna	cordate	possible	slight	sensitive	---
Davidia involucrata vilmoriniana	shallow	---	not possible	sensitive	---
Euodia hupehensis	cordate	possible	---	---	---
Fagus sylvatica varieties	shallow/cordate	possible	not possible	sensitive	never
Fraxinus angustifolia 'Raywood'	deep	---	slight	tolerant	---
Fraxinus americana varieties	shallow, cordate	rare	slight	tolerant	rare
Fraxinus excelsior varieties	deep, far	rare	possible	tolerant	frequent
Fraxinus pennsylvanica varieties	cordate	rare	slight	tolerant	rare
Juglans regia	deep	rare	possible	sensitive	---
Liquidambar styraciflua varieties	cordate	possible	slight	sensitive	observed
Nyssa sylvatica	deep	---	slight	sensitive	---
Paulownia tomentosa	deep	possible	slight	tolerant	---
Phellodendron amurense	shallow, far	strong	slight	---	---
Populus simonii	shallow	strong	possible	tolerant	observed
Populus tremula	shallow	strong	possible	tolerant	preferred
Prunus avium	cordate	possible	slight	sensitive	observed
Pterocarya fraxinifolia	shallow, far	strong	possible	tolerant	preferred
Quercus coccinea	shallow	possible	sensitive	sensitive	observed
Quercus macranthera	deep	rare	possible	---	---
Quercus palustris varieties	shallow	strong	sensitive	sensitive	observed
Robinia pseudoacacia varieties	shallow	possible	slight	tolerant	never
Salix alba varieties	shallow	strong	quite tolerant	tolerant	preferred
Salix alba 'Tristis'	shallow	strong	slight	tolerant	preferred
Sophora japonica	shallow	strong	slight	sensitive	---
Sorbus aucuparia varieties	shallow/cordate	strong	possible	sensitive	never
Sorbus domestica	deep	strong	slight	---	---
Sorbus intermedia and varieties	cordate	possible	possible	tolerant	never





25 Characteristics of the root system of the trees

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
<i>Tilia americana</i> varieties	cordate	possible	sensitive	sensitive	---
<i>Tilia cordata</i> varieties	cordate, intense	strong	slight	tolerant	never
<i>Tilia euchlora</i>	cordate	strong	slight	sensitive	---
<i>Ulmus</i> hybrids	cordate	possible	slight	---	---
<i>Zelkova serrata</i> varieties	cordate	---	---	---	---
3. Small trees (Trees 3rd order)					
<i>Acer buergerianum</i>	shallow	---	---	---	---
<i>Acer ginnala</i>	shallow	possible	slight	sensitive	---
<i>Acer griseum</i>	shallow/cordate	rare	sensitive	sensitive	---
<i>Acer japonicum</i> varieties	shallow	---	not possible	sensitive	---
<i>Acer monspessulanum</i>	cordate	---	---	---	---
<i>Acer neglectum</i> 'Annae'	shallow/cordate	possible	---	---	---
<i>Acer negundo</i> varieties	shallow	possible	sensitive	sensitive	frequent
<i>Acer palmatum</i> varieties	shallow	never	not possible	sensitive	---
<i>Acer pensylvanicum</i>	shallow	never	not possible	sensitive	---
<i>Acer rufinerve</i>	shallow	never	sensitive	sensitive	---
<i>Acer tataricum</i>	shallow	---	---	---	---
<i>Aesculus carnea</i> varieties	shallow/cordate	strong	sensitive	sensitive	---
<i>Alnus cordata</i>	shallow	rare	possible	---	---
<i>Amelanchier</i> species	shallow	possible	sensitive	sensitive	---
<i>Aralia elata</i> and varieties	shallow	never	slight	sensitive	---
<i>Betula albosinensis</i>	shallow	---	sensitive	sensitive	---
<i>Buxus sempervirens</i> in Formen	cordate, intense	rare	slight	tolerant	---
<i>Catalpa bignonioides</i>	cordate	never	slight	sensitive	---
<i>Cercis siliquastrum</i>	shallow	possible	---	---	---
<i>Cornus</i> species and varieties	shallow/cordate	rare	slight	sensitive	---
<i>Crataegus laevigata</i> 'Paul's Scarlet'	deep	rare	sensitive	sensitive	never
<i>Crataegus lavallei</i> 'Carrierei'	deep	rare	possible	tolerant	never



Characteristics of the root system of the trees 25

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
<i>Crataegus monogyna</i> varieties	deep	rare	sensitive	sensitive	never
<i>Crataegus coccinea</i>	deep	---	possible	tolerant	never
<i>Crataegus prunifolia</i> varieties	deep	rare	---	---	---
<i>Davidia involucrata vilmoriniana</i>	shallow	---	not possible	sensitive	---
<i>Elaeagnus angustifolia</i>	shallow/deep	---	slight	---	never
<i>Fraxinus ornus</i> varieties	cordate/deep	possible	possible	sensitive	---
<i>Halesia carolina</i>	shallow	never	not possible	sensitive	---
<i>Hippophae rhamnoides</i>	shallow/deep	strong	possible	tolerant	never
<i>Ilex aquifolium</i> varieties	cordate	rare	sensitive	sensitive	never
<i>Koelreuteria paniculata</i>	shallow	rare	sensitive	sensitive	never
<i>Laburnum</i> species and varieties	shallow, with gaps	possible	slight	sensitive	never
<i>Lonicera maackii</i>	cordate	possible	sensitive	sensitive	never
<i>Magnolia</i> species and varieties	shallow	possible	not possible	sensitive	never
<i>Malus</i> hybrids and varieties	shallow/cordate	possible	sensitive	sensitive	possible
<i>Malus tschonoskii</i>	cordate	rare	---	---	---
<i>Morus nigra</i>	cordate	---	possible	tolerant	---
<i>Parrotia persica</i>	shallow	possible	sensitive	sensitive	---
<i>Prunus</i> species and varieties	cordate	possible	sensitive	sensitive	possible
<i>Pyrus calleryana</i> varieties	deep	rare	possible	tolerant	possible
<i>Pyrus communis</i> varieties	cordate/deep	possible	possible	tolerant	---
<i>Pyrus nivalis</i>	deep	rare	---	---	---
<i>Pyrus regelii</i>	deep	---	---	---	---
<i>Pyrus salicifolia</i> varieties	deep	---	tolerant	possible	---
<i>Quercus pontica</i>	deep	rare	---	---	---
<i>Quercus turneri</i> 'Pseudoturneri'	deep	rare	---	---	---
3. Small trees (Trees 3rd order)					
<i>Rhus glabra</i>	shallow	rare	sensitive	sensitive	---
<i>Rhus typhina</i>	shallow, far	strong	sensitive	sensitive	---
<i>Robinia</i> 'Casque Rouge' u.a.	shallow	rare	sensitive	sensitive	---





25 Characteristics of the root system of the trees

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
Salix species and varieties	shallow	strong	quite tolerant	tolerant	preferred
Sorbus species and varieties	cordate/deep	possible	sensitive	sensitive	possible
Styrax obassia	cordate	---	---	---	---
4. Conifers					
Abies species and varieties	cordate/deep	possible	possible	sensitive	never
Cedrus species and varieties	cordate/deep	rare	possible	sensitive	never
Chamaecyparis species and varieties	shallow, intense	possible	sensitive	sensitive	never
Cupressocyparis leylandii	cordate	possible	sensitive	---	---
Ginkgo biloba	cordate	rare	sensitive	sensitive	---
Juniperus virginiana varieties	shallow/deep	rare	possible	tolerant	---
Larix species and varieties	cordate/deep	possible	possible	tolerant	---
Metasequoia glyptostroboides	shallow	strong	sensitive	sensitive	possible
Picea species and varieties	shallow	possible	sensitive	sensitive	never
Pinus species and varieties	shallow/deep	strong	possible	tolerant	never
Pseudolarix amabilis	deep	rare	---	---	never
Pseudotsuga menziesii caesia	cordate	rare	slight	---	never
Sciadopitys verticillata	shallow	never	not possible	sensitive	never
Sequoiadendron giganteum	shallow/deep	possible	not possible	sensitive	never
Taxodium distichum	shallow, far	possible	slight	tolerant	possible
Taxus baccata	cordate	possible	slight	---	never
Thuja species and varieties	shallow, dense	possible	slight	sensitive	never
Thujaops dolabrata	shallow	possible	slight	---	---
Tsuga species and varieties	shallow	possible	sensitive	sensitive	never



Thorny and prickly plants 26

Thorns are pointed, sharp, prickly organs created out of the transformation of leaves or shoots, such as with Rhamnus catharticus. On leaves, thorns are formed from needle-like projections on serrated or notched leaf edges, such as with Mahonia aquifolium. Prickles occur on plants as the outgrowths of the outer layer of bark or skin, such as with roses or blackberries. The formation of thorns and prickles is not a constant, but depends on:

- location (Prunus spinosa is thornier on dry soil than on fresh)
- age (young specimen of Ilex aquifolium are thornier than older ones)
- cutting (more thorns on leaves)

Thorny or prickly trees and shrubs can replace fences. When these plants are pruned they become impenetrable due to their dense branching and the increased amount of thorns. This makes for safe hiding spots for small animals and birds.

Note:

In the overview, no distinction is made between thorns and prickles.

Genus/species/variety	Thorns or prickles on			Genus/species/variety	Thorns or prickles on		
	Mainstem	Twig	Leaf		Mainstem	Twig	Leaf
1. Deciduous trees							
Aralia elata varieties	+			Osmanthus heterophyllus			+
Crataegus species and varieties	+	+		Pernettya mucronata			+
Elaeagnus angustifolia		+		Prunus spinosa		+	+
Gleditsia triacanthos	+	+		Pyracantha species and varieties		+	+
Hippophae rhamnoides	+	+		Rhamnus catharticus			+
Ilex aquifolium varieties			+	Ribes divaricatum		+	+
Malus sylvestris		+		Rosa species and varieties		+	+
Pyrus communis	+	+		Rubus species and varieties		+	+
Pyrus salicifolia		+	+	Ulex europaeus		+	+
Pyrus regelii	+	+	+	3. Climbers			
Robinia pseudoacacia	+	+	+	Rosa species and varieties		+	+
2. Shrubs				Rubus species and varieties		+	+
Acanthopanax sieboldianus		+		4. Conifers			
Berberis species and varieties		+	+	Araucaria araucana		+	+
Chaenomeles species and varieties		+	+	Cedrus deodara varieties		+	+
Crataegus species and varieties		+	+	Juniperus chinensis varieties		+	+
Elaeagnus pungens 'Maculata'		+		Juniperus communis varieties		+	+
Genista lydia		+		Juniperus media varieties		+	+
Hippophae rhamnoides		+	+	Juniperus squamata		+	+
Ilex altaclarensis varieties		+	+	Picea abies varieties		+	+
Ilex aquifolium varieties		+	+	Picea pungens varieties		+	+
Ilex meserveae varieties		+	+	Pinus leucormis		+	+
Lycium barbarum		+	+	Pinus nigra austriaca varieties		+	+
Mahonia species and varieties		+	+	Pinus sylvestris varieties		+	+
Mespilus germanica		+	+				





27 Plants with conspicuous bark colour

Many plants develop bark colours that differ from normal colours. Normally, grey-brown or blackish coloured bark with lengthways fissures is found, occasionally with scaly peelings. The conspicuously coloured stems and twigs are only recognisable if the bark is smooth.

Note:

Damage to bark, stem or twigs will provoke a bark development in which the characteristic colour of the smooth bark is irretrievably lost. The bark colour typical of the species disappears with age and is gradually replaced by a dull grey bark.

Our tip:

Shrubs can be made to form new shoots with generous pruning in spring. The new twigs then display the typical, original bark colour in the following year.

1. Trees	Genus/species/variety	Bark colour	Note
	Acer buergerianum	orange, brown and grey	peeling off in patches
	Acer griseum	cinnamon-red	peeling off in patches
	Acer pensylvanicum	green with white vertical stripes	
	Acer rufinerve	grey-green and white lengthways stripes	on stem and twigs
	Betula albosinensis	pink-white to copper-red	
	Betula ermanii	white	
	Betula maximowicziana	pale white to copper-brown	
	Betula nigra	reddish to black-brown	peeling off in patches
	Betula papyrifera	white	horizontal stripes
	Betula pendula	white	black bark when old
	Betula pubescens	white	horizontal stripes
	Betula jacquemontii	shimmering white	peeling off like paper
	Malus sylvestris	scaly, reddish, light brown	
	Parrotia persica	scaly, white, reddish, green	only at the base of the stem
	Phellodendron amurense	light grey with strips of cork	
	Platanus acerifolia	scaly light grey to light brown	scaly peeling off in large sections
	Platanus acerifolia varieties	scaly light grey to light brown	scaly peeling off in large sections
	Platanus orientalis	grey	peeling off in thin sections
	Populus simonii	whitish grey	stays smooth a long time
	Populus tremula	light silver-grey	stays smooth a long time
	Prunus lusitanica varieties	red to reddish	shiny
	Prunus maackii	shiny cinnamon-red	horizontal stripes
	Prunus maackii 'Amber Beauty'	shiny golden yellow	horizontal stripes
	Prunus serrula	shiny-mahagonired	horizontal stripes
	Prunus schwithtii	shiny dark brown	horizontal stripes
	Prunus serrulata varieties	shiny red-brown	horizontal stripes
	Populus alba 'Nivea'	white to light grey	bark pattern when old
	Salix acutifolia 'Pendulifolia'	glaucous silver-blue	on 2-4 years twigs, cutting necessary
	Salix daphnoides	glaucous silver-blue	on 2-4 years twigs, cutting necessary
	Salix alba 'Tristis'	bright yellow to yellow-green	only young twigs
	Sorbus decora	bronze	horizontal stripes
	Zelkova serrata varieties	grey, with orange	peeling off in patches when old

2. Shrubs	Genus/species/variety	Bark colour	Note
	Bambus species and varieties	green with yellow or black	only thin out
	Caryopteris clandonensis i.S.	silvery grey	cut yearly
	Cornus alba	brownish red	only on 2-4 year twigs, regular thinning out necessary
	Cornus alba 'Elegantissima'	dark red	as above
	Cornus alba 'Kesselringii'	black to black-red	as above
	Cornus alba 'Sibirica'	bright red	as above
	Cornus alba 'Spaethii'	dark red	as above
	Cornus sanguinea	dark red	
	Cornus stolonifera 'Flaviramea'	yellow	as above
	Cornus stolonifera 'Kelsey'	fresh green to reddish	as above
	Cytisus scoparius hybrids	dark green	as above
	Euonymus species	green with cork stripes	do not cut, only thin out
	Heptacodium miconioides	brown-yellow to brown-red	peeling off in patches
	Hydrangea quercifolia	yellowbrown	peeling off in patches



Plants with conspicuous bark colour 27

2. Shrubs

Genus/species/variety	Bark colour	Note
Kerria japonica and varieties	freshgreen	
Lonicera caerulea	yellow to orange-brown	peeling off in patches
Lycium barbarum	light grey	
Nothofagus antarctica	shinybrown	horizontal stripes
Perovskia abrotanoides	feltygrey	
Salix balsamifera mas	shiny red-brown to green	
Salix triandra	scaly cinnamon-red	base of stem
Stephanandra incisa 'Crispa'	red-brown	
Stephanandra tanakae	cinnamon-red	thin out
Styrax obassia	orange and grey	peeling off in patches

Explanation of symbols: shallow = shallow root system / cordate = cordate root system / deep = deep root system

