



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

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|---|------------|
| 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) | |

Note: In order to take into account the different manifestations of woody plants, borderline cases have been listed in all categories.

Deciduous plants

Genus/species/variety	Height	Width
1. Large trees (20-40 m)		
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'	20 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	0 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

Genus/species/variety	Height	Width
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
Pseudotsuga menziesii caesia	30 to 40 m	7 to 10 m
Quercus alba	20 to 25 m	15 to 25 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	15 to 20 m
Tilia tomentosa	25 to 30 m	15 to 20 m
Tilia tomentosa 'Brabant'	20 to 25 m	12 to 15 m
Ulmus carpinifolia	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)

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
Acer truncatum 'Pacific Sunset'®	8 to 12 m	4 to 6 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





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Genus/species/variety	Height	Width
<i>Alnus cordata</i>	8 to 15 m	3 to 6 m
<i>Alnus incana</i>	8 to 20 m	3 to 10 m
<i>Alnus spaethii</i>	12 to 15 m	6 to 10 m
<i>Betula ermanii</i>	15 to 20 m	6 to 10 m
<i>Betula maximowicziana</i>	15 to 20 m	8 to 12 m
<i>Betula nigra</i>	15 to 20 m	6 to 12 m
<i>Betula pendula</i>	8 to 30 m	6 to 8 m
<i>Betula pendula</i> 'Tristis'	8 to 30 m	6 to 8 m
<i>Betula pubescens</i>	5 to 15 m	3 to 5 m
<i>Betula jacquemontii</i>	10 to 15 m	6 to 10 m
<i>Carpinus betulus</i>	5 to 15 m	4 to 8 m
<i>Carpinus betulus</i> 'Fastigiata'	10 to 15 m	5 to 8 m
<i>Cercidiphyllum japonicum</i>	8 to 15 m	4 to 10 m
<i>Cladrastis kentukea</i>	10 to 15 m	5 to 8 m
<i>Corylus colurna</i>	12 to 20 m	6 to 8 m
<i>Davidia involucrata</i> vilmoriniana	6 to 15 m	4 to 8 m
<i>Euodia hupehensis</i>	6 to 12 m	6 to 12 m
<i>Fagus sylvatica</i> 'Asplenifolia'	15 to 20 m	8 to 12 m
<i>Fagus sylvatica</i> 'Pendula'	15 to 20 m	10 to 20 m
<i>Fagus sylvatica</i> 'Purpurea Pendula'	8 to 10 m	4 to 6 m
<i>Fraxinus americana</i> 'Autumn Purple'	12 to 15 m	10 to 12 m
<i>Fraxinus americana</i> 'Skyline'	10 to 15 m	6 to 10 m
<i>Fraxinus americana</i> microcarpa	12 to 15 m	8 to 10 m
<i>Fraxinus angustifolia</i> 'Raywood'	15 to 20 m	7 to 10 m
<i>Fraxinus excelsior</i> 'Diversifolia'	15 to 20 m	8 to 10 m
<i>Fraxinus excelsior</i> 'Geesink'	15 to 20 m	10 to 15 m
<i>Fraxinus pennsylvanica</i> 'Cimzam'	15 to 20 m	8 to 10 m
<i>Fraxinus pennsylvanica</i> 'Patmore'	15 to 20 m	10 to 12 m
<i>Fraxinus pennsylvanica</i> 'Summit'	15 to 18 m	2 to 3 m
<i>Gleditsia triacanthos</i> 'Skyline'	12 to 15 m	5 to 8 m
<i>Gymnocladus dioica</i>	15 to 20 m	8 to 15 m
<i>Juglans regia</i>	10 to 20 m	8 to 15 m
<i>Liquidambar styraciflua</i>	12 to 20 m	4 to 8 m
<i>Liriodendron tulipifera</i> 'Fastigiatum'	15 to 20 m	5 to 7 m
<i>Nyssa sylvatica</i>	15 to 20 m	8 to 12 m
<i>Ostrya carpinifolia</i>	10 to 15 m	8 to 12 m
<i>Paulownia tomentosa</i>	8 to 15 m	8 to 15 m
<i>Phellodendron amurense</i>	10 to 12 m	10 to 15 m
<i>Populus lasiocarpa</i>	10 to 15 m	6 to 10 m
<i>Populus simonii</i>	12 to 18 m	6 to 10 m
<i>Populus tremula</i>	10 to 30 m	6 to 10 m
<i>Populus tremula</i> 'Erecta'	10 to 18 m	1 to 2 m
<i>Prunus avium</i>	15 to 20 m	8 to 12 m
<i>Pterocarya fraxinifolia</i>	15 to 25 m	8 to 25 m
<i>Pyrus calleryana</i> 'Bradford'	8 to 15 m	6 to 9 m
<i>Pyrus calleryana</i> 'Chanticleer'	7 to 12 m	4 to 5 m
<i>Pyrus communis</i>	5 to 15 m	5 to 10 m
<i>Quercus coccinea</i>	15 to 25 m	8 to 15 m
<i>Quercus macranthera</i>	10 to 20 m	6 to 10 m
<i>Quercus palustris</i>	15 to 25 m	10 to 15 m

Genus/species/variety	Height	Width
<i>Quercus palustris</i> 'Green Pillar'	15 to 20 m	3 to 4 m
<i>Quercus robur</i> 'Fastigiata'	15 to 20 m	2 to 5 m
<i>Robinia</i> 'Casque Rouge'	5 to 7 m	5 to 6 m
<i>Robinia pseudoacacia</i> varieties	15 to 20 m	7 to 12 m
<i>Salix alba</i>	10 to 20 m	8 to 15 m
<i>Salix alba</i> 'Tristis'	15 to 20 m	15 to 20 m
<i>Salix fragilis</i>	5 to 15 m	6 to 8 m
<i>Sophora japonica</i>	15 to 20 m	12 to 15 m
<i>Sophora japonica</i> 'Regent'	10 to 15 m	10 to 12 m
<i>Sorbus aucuparia</i>	5 to 15 m	4 to 8 m
<i>Sorbus aucuparia</i> 'Edulis'	12 to 15 m	5 to 7 m
<i>Sorbus domestica</i>	10 to 15 m	8 to 10 m
<i>Sorbus intermedia</i> 'Brouwers'	8 to 10 m	4 to 6 m
<i>Sorbus torminalis</i>	8 to 15 m	6 to 8 m
<i>Sorbus vulgaris</i>	10 to 18 m	4 to 6 m
<i>Tilia americana</i> 'Nova'	17 to 20 m	12 to 20 m
<i>Tilia cordata</i> 'Erecta'	15 to 20 m	5 to 10 m
<i>Tilia cordata</i> 'Greenspire'	12 to 15 m	6 to 12 m
<i>Tilia euchlora</i>	15 to 18 m	7 to 10 m
<i>Tilia flavescens</i> 'Glenleven'	15 to 20 m	8 to 12 m
<i>Ulmus</i> 'Columella'	15 to 20 m	4 to 6 m
<i>Ulmus hollandica</i> 'Lobel'	12 to 15 m	6 to 8 m
<i>Zelkova serrata</i>	15 to 20 m	8 to 12 m
<i>Zelkova serrata</i> 'Green Vase'	15 to 20 m	10 to 12 m

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

<i>Acer buergerianum</i>	8 to 15 m	4 to 5 m
<i>Acer campestre</i> 'Elsrijk'	8 to 12 m	4 to 6 m
<i>Acer campestre</i> 'Huibers Elegant'	10 to 12 m	4 to 6 m
<i>Acer campestre</i> 'Queen Elizabeth'	10 to 12 m	6 to 8 m
<i>Acer cappadocicum</i> 'Aureum'	10 to 15 m	8 to 10 m
<i>Acer cappadocicum</i> 'Rubrum'	10 to 15 m	5 to 8 m
<i>Acer davidii</i>	8 to 15 m	6 to 8 m
<i>Acer freemanii</i> 'Armstrong'	10 to 15 m	2 to 4 m
<i>Acer freemanii</i> 'Celzam'	12 to 15 m	10 to 12 m
<i>Acer ginnala</i>	5 to 8 m	4 to 10 m
<i>Acer griseum</i>	5 to 8 m	4 to 5 m
<i>Acer japonicum</i> 'Aconitifolium'	3 to 4 m	2 to 4 m
<i>Acer monspessulanum</i>	6 to 10 m	4 to 10 m
<i>Acer neglectum</i> 'Annae'	8 to 12 m	6 to 10 m
<i>Acer opalus</i>	8 to 12 m	5 to 10 m
<i>Acer palmatum</i> varieties	4 to 6 m	2 to 5 m
<i>Acer pensylvanicum</i>	5 to 7 m	3 to 8 m
<i>Acer platanoides</i> 'Globosum'	4 to 6 m	3 to 5 m
<i>Acer rubrum</i>	7 to 12 m	4 to 7 m
<i>Acer rufrinerve</i>	4 to 7 m	2 to 4 m
<i>Acer tataricum</i>	5 to 10 m	5 to 7 m
<i>Aesculus carnea</i> 'Briotii'	8 to 15 m	6 to 10 m
<i>Aesculus glabra</i>	6 to 12(20)	6 to 12
<i>Aesculus hippocastanum</i> 'Umbraculifera'	4 to 5 m	3 to 5 m





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3. Small trees (7-12 / 15 m)					
<i>Alnus cordata</i>	8 to 15 m	3 to 6 m	<i>Lonicera maackii</i>	4 to 6 m	4 to 8 m
<i>Alnus incana</i> 'Aurea'	8 to 10 m	4 to 7 m	<i>Magnolia kobus</i>	8 to 10 m	4 to 6 m
<i>Amelanchier</i> 'Ballerina'	5 to 8 m	3 to 5 m	<i>Magnolia loebneri</i> 'Leonard Messel'	4 to 6 m	3 to 4 m
<i>Amelanchier laevis</i>	3 to 8 m	3 to 5 m	<i>Magnolia loebneri</i> 'Merrill'	4 to 6 m	3 to 4 m
<i>Amelanchier lamarckii</i>	5 to 8 m	3 to 5 m	<i>Magnolia soulangeana</i>	3 to 8 m	3 to 5 m
<i>Aralia elata</i>	3 to 7 m	3 to 4 m	<i>Malus</i> varieties	6 to 8 m	4 to 6 m
<i>Betula albosinensis</i>	6 to 10 m	4 to 6 m	<i>Malus floribunda</i>	5 to 8 m	4 to 8 m
<i>Betula pendula</i> 'Youngii'	5 to 7 m	3 to 4 m	<i>Malus sylvestris</i>	5 to 10 m	4 to 6 m
<i>Betula pubescens</i>	5 to 15 m	3 to 5 m	<i>Malus toringo sargentii</i> - seedling	6 to 8 m	6 to 10 m
<i>Buxus sempervirens</i>	1 to 6 m	2 to 3 m	<i>Malus toringo sargentii</i> - grafted	7 to 10 m	4 to 6 m
<i>Catalpa bignonioides</i>	8 to 12 m	4 to 8 m	<i>Malus tschonoskii</i>	8 to 15 m	2 to 6 m
<i>Catalpa bignonioides</i> 'Aurea'	6 to 8 m	5 to 8 m	<i>Morus alba</i>	10 to 15 m	4 to 6 m
<i>Catalpa bignonioides</i> 'Nana'	4 to 6 m	2 to 4 m	<i>Morus alba</i> 'Fruitless'	8 to 10 m	4 to 8 m
<i>Cercidiphyllum japonicum</i>	8 to 15 m	4 to 10 m	<i>Morus alba</i> 'Macrophylla'	10 to 15 m	6 to 7 m
<i>Cercis siliquastrum</i>	4 to 6 m	4 to 6 m	<i>Morus nigra</i>	6 to 10 m	6 to 10 m
<i>Cornus nuttallii</i> 'Eddie's White Wonder'	4 to 5 m	3 to 5 m	<i>Nothofagus antarctica</i>	4 to 8 m	3 to 4 m
<i>Cornus alternifolia</i>	4 to 8 m	4 to 6 m	<i>Parrotia persica</i>	5 to 10 m	5 to 7 m
<i>Cornus controversa</i>	6 to 10 m	4 to 6 m	<i>Phellodendron amurense</i>	10 to 12 m	10 to 15 m
<i>Cornus florida</i>	5 to 10 m	3 to 5 m	<i>Prunus avium</i> 'Plena'	7 to 12 m	4 to 6 m
<i>Cornus florida rubra</i>	5 to 10 m	3 to 5 m	<i>Prunus cerasifera</i> 'Nigra'	5 to 7 m	3 to 5 m
<i>Cornus kousa</i>	4 to 7 m	3 to 4 m	<i>Prunus fruticosa</i> 'Globosa'	3 to 5 m	2 to 3 m
<i>Cornus kousa chinensis</i>	5 to 8 m	4 to 5 m	<i>Prunus gondouinii</i> 'Schnee'	3 to 5 m	3 to 5 m
<i>Cornus mas</i>	3 to 8 m	3 to 6 m	<i>Prunus hillieri</i> 'Spire'	6 to 8 m	1.5 to 3 m
<i>Cornus nuttallii</i>	4 to 6 m	2 to 5 m	<i>Prunus lusitanica</i>	5 to 7 m	3 to 6 m
<i>Crataegus coccinea</i>	5 to 9 m	4 to 6 m	<i>Prunus maackii</i> 'Amber Beauty'	5 to 12 m	5 to 8 m
<i>Crataegus laevigata</i> 'Paul's Scarlet'	3 to 10 m	3 to 5 m	<i>Prunus mahaleb</i>	3 to 12 m	6 to 8 m
<i>Crataegus lavallei</i> 'Carrierei'	5 to 10 m	3 to 6 m	<i>Prunus padus</i>	3 to 10 m	4 to 8 m
<i>Crataegus monogyna</i>	2 to 10 m	2 to 5 m	<i>Prunus padus</i> 'Watereri'	3 to 10 m	4 to 8 m
<i>Crataegus monogyna</i> 'Compacta'	3 to 4 m	1.5 to 3 m	<i>Prunus sargentii</i>	5 to 12 m	4 to 8 m
<i>Crataegus monogyna</i> 'Stricta'	5 to 6 m	1 to 2 m	<i>Prunus schmittii</i>	4 to 6 m	2 to 3 m
<i>Crataegus prunifolia</i>	5 to 7 m	3 to 8 m	<i>Prunus serotina</i>	5 to 20 m	5 to 10 m
<i>Davidia involucrata vilmoriniana</i>	6 to 15 m	4 to 8 m	<i>Prunus serrulata</i>	4 to 10 m	2 to 6 m
<i>Elaeagnus angustifolia</i>	6 to 8 m	4 to 6 m	<i>Prunus serrula</i>	5 to 7 m	5 to 7 m
<i>Euodia hupehensis</i>	6 to 12 m	6 to 12 m	<i>Prunus serrulata</i> varieties	4 to 7 m	3 to 5 m
<i>Fagus sylvatica</i> 'Purpurea Pendula'	8 to 10 m	4 to 6 m	<i>Prunus subhirtella</i> varieties	3 to 6 m	3 to 5 m
<i>Fraxinus americana</i> 'Autumn Applause'	10 to 12 m	6 to 8 m	<i>Prunus triloba</i>	1 to 3 m	1 to 2 m
<i>Fraxinus excelsior</i> 'Nana'	4 to 8 m	2 to 4 m	<i>Prunus yedoensis</i>	5 to 12 m	5 to 7 m
<i>Fraxinus excelsior</i> 'Pendula'	8 to 10 m	6 to 10 m	<i>Pyrus calleryana</i> varieties	8 to 15 m	4 to 9 m
<i>Fraxinus ornus</i>	6 to 10 m	3 to 6 m	<i>Pyrus communis</i>	5 to 15 m	5 to 10 m
<i>Fraxinus ornus</i> 'Anita'	6 to 8 m	3 to 5 m	<i>Pyrus communis</i> 'Beech Hill'	8 to 10 m	3 to 5 m
<i>Halesia carolina</i>	5 to 6 m	5 to 6 m	<i>Pyrus nivalis</i>	6 to 10 m	5 to 7 m
<i>Hippophae rhamnoides</i>	3 to 10 m	2 to 3 m	<i>Pyrus regelii</i>	5 to 9 m	3 to 4 m
<i>Ilex aquifolium</i>	2 to 10 m	2 to 4 m	<i>Pyrus salicifolia</i>	4 to 7 m	3 to 4 m
<i>Ilex aquifolium</i> 'Alaska'	2 to 3 m	1 to 1.5 m	<i>Pyrus salicifolia</i> 'Pendula'	5 to 8 m	5 to 6 m
<i>Ilex aquifolium</i> 'J.C. van Tol'	6 to 8 m	3 to 4 m	<i>Quercus palustris</i> 'Green Dwarf'	5 to 8 m	2 to 3 m
<i>Koeleruteria paniculata</i>	6 to 8 m	4 to 8 m	<i>Quercus pontica</i>	4 to 6 m	2 to 4 m
<i>Laburnum anagyroides</i>	5 to 7 m	3 to 4 m	<i>Quercus turneri</i> 'Pseudoturneri'	5 to 10 m	5 to 8 m
<i>Laburnum watereri</i> 'Vossii'	5 to 7 m	3 to 4 m	<i>Rhamnus catharticus</i>	2 to 8 m	2 to 4 m
<i>Liquidambar styraciflua</i> 'Slender Silhouette'	10 to 15 m	0.5 to 0.8 m	<i>Rhus glabra</i>	3 to 6 m	3 to 6 m
			<i>Rhus typhina</i>	3 to 10 m	3 to 5 m





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Genus/species/variety	Height	Width
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
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	3 is 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 hollandica '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)		
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 varieties	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 palmatum 'Sangokaku'	4 to 6 m	1.5 to 2

Genus/species/variety	Height	Width
Acer pensylvanicum	5 to 7 m	3 to 8 m
Acer rufrinerve	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 lamarckii	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
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 in 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 'Carrierei'	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





1 Groups according to size and growth rates

Genus/species/variety	Height	Width	Genus/species/variety	Height	Width
4. Large shrubs (3-5 / 7 m)					
Hippophae rhamnoides	3 to 10 m	2 to 3 m	Rhus glabra	3 to 6 m	3 to 6 m
Ilex altaclerensis 'Golden King'	3 to 4 m	3 to 4 m	Rhus typhina	3 to 10 m	3 to 5 m
Ilex in species and varieties	2 to 10 m	2 to 4 m	Robinia hispida 'Macrophylla'	2 to 3 m	1 to 2 m
Ilex 'Nellie R. Stevens'	3 to 8 m	2 to 4 m	Rosa moyesii	3 to 5 m	3 to 4 m
Laburnum watereri 'Vossii'	5 to 7 m	3 to 4 m	Salix acutifolia 'Pendulifolia'	4 to 6 m	4 to 6 m
Ligustrum ovalifolium	3 to 5 m	2 to 3 m	Salix caprea	3 to 13 m	3 to 5 m
Ligustrum ovalifolium 'Aureum'	3 to 4 m	1.8 to 2 m	Salix caprea 'Mas'	3 to 8 m	3 to 5 m
Ligustrum vulgare	2 to 5 m	2 to 4 m	Salix cinerea	3 to 6 m	3 to 5 m
Ligustrum vulgare 'Atrovirens'	3 to 4 m	2 to 4 m	Salix daphnoides 'Praecox'	5 to 8 m	3 to 5 m
Liquidambar styraciflua 'Gum Ball'	3 to 8 m	2 to 4 m	Salix daphnoides pomermanica	3 to 6 m	2 to 4 m
Lonicera ledebourii	3 to 4 m	2 to 3 m	Salix elaeagnos	2 to 6 m	3 to 6 m
Lonicera maackii	4 to 6 m	4 to 8 m	Salix fragilis	5 to 15 m	6 to 8 m
Magnolia in species and varieties	2 to 6 m	3 to 4 m	Salix matsudana 'Tortuosa'	4 to 12 m	4 to 6 m
Magnolia loebneri 'Leonard Messel'	4 to 6 m	3 to 4 m	Salix purpurea	2 to 10 m	2 to 6 m
Magnolia loebneri 'Merrill'	4 to 6 m	3 to 4 m	Salix sachalinensis 'Sekka'	2 to 3 m	2 to 3 m
Magnolia sieboldii	3 to 5 m	3 to 4 m	Salix smithiana	4 to 6 m	4 to 6 m
Magnolia soulangiana	3 to 8 m	3 to 5 m	Salix triandra	2 to 4 m	3 to 8 m
Magnolia stellata varieties	2 to 4 m	2 to 3 m	Salix viminalis	2 to 10 m	4 to 8 m
Malus sylvestris	5 to 10 m	4 to 6 m	Sambucus canadensis 'Aurea'	3 to 5 m	2 to 4 m
Malus toringo sargentii Veredlung	2 to 4 m	2 to 4 m	Sambucus canadensis 'Maxima'	3 to 5 m	2 to 4 m
Malus toringo sargentii Sämling	7 to 10 m	4 to 6 m	Sambucus nigra	2 to 7 m	3 to 5 m
Mespilus germanica	3 to 5 m	3 to 5 m	Sambucus racemosa	2 to 4 m	2 to 4 m
Nothofagus antarctica	4 to 8 m	3 to 4 m	Sorbus aria varieties	6 to 12 m	4 to 8 m
Parrotia persica	5 to 10 m	5 to 7 m	Sorbus decora	6 to 10 m	4 to 6 m
Philadelphus inodorus grandiflorus varieties	3 to 5 m	2 to 3 m	Sorbus koehneana	2 to 4 m	2 to 4 m
Photinia villosa	3 to 5 m	2 to 3 m	Sorbus vilmorinii	3 to 6 m	3 to 5 m
Phyllostachys in species and varieties	3 to 7 m	3 to 7 m	Staphylea colchica	3 to 5 m	2 to 4 m
Platanus acerifolia 'Alphen's Globe'	4 to 7 m	3 to 4 m	Stewartia pseudocamellia	4 to 6 m	4 to 6 m
Prunus 'Accolade'	5 to 8 m	3 to 5 m	Stranvaesia davidiana	2 to 5 m	2 to 4 m
Prunus cerasifera	5 to 7 m	3 to 5 m	Styrax japonicus	3 to 8 m	5 to 8 m
Prunus cerasifera 'Nigra'	5 to 7 m	3 to 5 m	Syringa chinensis	3 to 4 m	3 to 4 m
Prunus laurocerasus varieties	2 to 4 m	2 to 6 m	Syringa josikaea	3 to 5 m	3 to 4 m
Prunus lusitanica	4 to 7 m	3 to 5 m	Syringa prestoniae 'Elinor'	3 to 4 m	3 to 4 m
Prunus mahaleb	3 to 12 m	6 to 8 m	Syringa reflexa	3 to 4 m	3 to 5 m
Prunus padus varieties	3 to 10 m	4 to 8 m	Syringa swegiflexa	3 to 4 m	3 to 4 m
Prunus sargentii	5 to 12 m	4 to 8 m	Syringa vulgaris varieties	3 to 5 m	3 to 5 m
Prunus schmittii	4 to 6 m	2 to 3 m	Tamarix parviflora	3 to 5 m	2 to 3 m
Prunus serotina	5 to 20 m	5 to 10 m	Tilia cordata 'Green Globe'	6 to 8 m	3 to 4 m
Prunus serrulata	4 to 10 m	2 to 6 m	Tilia cordata 'Winter Orange'	6 to 8 m	3 to 4 m
Prunus serrula	5 to 7 m	5 to 7 m	Ulmus glabra 'Pendula'	3 to 5 m	6 to 10 m
Prunus serrulata varieties	4 to 7 m	3 to 5 m	Viburnum lantana	2 to 5 m	2 to 4 m
Prunus subhirtella varieties	3 to 6 m	3 to 5 m	Viburnum opulus	2 to 5 m	2 to 5 m
Prunus yedoensis	5 to 12 m	5 to 7 m	Viburnum rhytidophyllum	3 to 7 m	3 to 4 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			





Groups according to size and growth rates 1

Genus/species/variety	Height	Width
5. Normal shrubs / medium shrubs (1.5-3m)		
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 in 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 in 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 in 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 in 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 in species and varieties	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 in 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

Genus/species/variety	Height	Width
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
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 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 species and 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	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 varieties	1.5 to 2 m	1.5 to 2 m
Rosa - Bedding Roses	0.4 to 1 m	1 to 1.5 m
Rosa - Ground Cover Roses	0.4 to 0.8 m	1 to 1.5 m
Rosa - Hybrid Tea Roses	0.8 to 1.5 m	1 to 1.5 m
Rosa - Climbing Roses	2 to 6 m	0.3 to 3 m
Rosa - Park and Shrub Roses	1 to 3 m	1 to 2 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





1 Groups according to size and growth rates

Genus/species/variety	Height	Width
5. Normal shrubs / medium shrubs (1.5-3m)		
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 varieties	1.5 to 2 m	2 to 3 m
Syringa vulgaris 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
Vaccinium corymbosum	1 to 2 m	1 to 2 m
Viburnum in species and varieties	1 to 4 m	2 to 3 m
Weigela in species and varieties	1.5 to 3 m	2 to 3 m

6. Small shrubs (0.5-1.5 m)

Acanthopanax sieboldianus	1 to 2 m	1 to 2 m
Acer palmatum 'Dissectum Garnet'	1 to 2 m	1 to 2 m
Aronia melanocarpa	0.5 to 2 m	1 to 2 m
Berberis in species and varieties	0.8 to 2 m	0.8 to 2 m
Buxus sempervirens in 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 in 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 1.2 m	1 to 1.5 m
Daphne mezereum alba	1 to 1.2 m	0.8 to 1 m

Genus/species/variety	Height	Width
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 kalmiiflora	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 15 m	1 to 2 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
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 abrotanoides	1 to 1.5 m	1 to 1.5 m
Philadelphus varieties'	0.8 to 1.5 m	1 to 2 m





Groups according to size and growth rates 1

Genus/species/variety	Height	Width
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
Pleioblastus 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 hybrids	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 'Blue Tit Magor'	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
Rosa - Bedding Roses	0.4 to 1 m	1 to 1.5 m
Rosa - Ground Cover Roses	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 'Alba'	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
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

Genus/species/variety	Height	Width
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)

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'	1.5 to 3 m	1 to 2 m
Cytisus species	0.2 to 0.8 m	0.2 to 2 m
Daboecia in 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





1 Groups according to size and growth rates

Genus/species/variety	Height	Width
7. Dwarf shrubs (0.1-0.5m)		
<i>Hypericum moserianum</i>	0.3 to 0.5 m	0.3 to 0.6 m
<i>Ilex crenata</i> varieties	1 to 1.5 m	1.5 to 2 m
<i>Kalmia latifolia</i>	2 to 3 m	1 to 3 m
<i>Kalmia latifolia</i> 'Ostbo Red'	0.5 to 1.2 m	0.5 to 1.2 m
<i>Lavandula angustifolia</i> varieties	0.4 to 0.5 m	0.4 to 0.5 m
<i>Ledum palustre</i>	0.5 to 1 m	0.5 to 1 m
<i>Ligustrum vulgare</i> 'Lodense'	0.4 to 1 m	0.5 to 0.8 m
<i>Pernettya mucronata</i> varieties	0.6 to 1 m	0.6 to 1 m
<i>Potentilla fruticosa</i> mandshurica	0.3 to 0.5 m	0.6 to 1 m
<i>Rhododendron</i> 'Radistrotum'	0.2 to 0.3 m	0.3 to 0.5 m
<i>Rhododendron</i> camtschaticum	0.2 to 0.3 m	0.3 to 0.5 m
<i>Rhododendron</i> carolinianum varieties	0.3 to 1 m	0.6 to 1 m
<i>Rhododendron</i> impeditum varieties	0.1 to 0.4 m	0.5 to 1 m
<i>Rhododendron</i> kelticum	0.1 to 0.2 m	0.2 to 0.4 m
<i>Rhododendron</i> radicans	0.1 to 0.2 m	0.2 to 0.4 m
<i>Rhododendron</i> Repens hybrids	0.4 to 0.6 m	0.8 to 1.3 m
<i>Rhododendron</i> Yakushmanum hybrids	0.4 to 0.8 m	1 to 1.2 m
<i>Rhododendron</i> Azalea hybrids	0.3 to 0.5 m	0.3 to 0.5 m
Rosa - Beeding Roses	0.4 to 1 m	1 to 1.5 m
Rosa - Ground Cover Roses	0.4 to 0.8 m	1 to 1.5 m
<i>Rubus calycinoideis</i>	0.1 to 0.2 m	0.5 to 1 m
<i>Salix grahamii</i>	0.2 to 0.3 m	0.6 to 1 m
<i>Salix helvetica</i>	0.3 to 1.2 m	0.8 to 1.2 m
<i>Salix repens</i> argentea	0.3 to 0.5 m	0.5 to 1 m
<i>Sasa veitchii</i>	0.3 to 0.8 m	2 to 4 m
<i>Spiraea betulifolia</i> 'Tor'	0.5 to 1 m	1 to 1.5 m
<i>Spiraea</i> decumbens	0.2 to 0.3 m	0.4 to 0.5 m
<i>Spiraea</i> japonica 'Little Princess'	0.5 m	0.9 m
<i>Stephanandra</i> incisa 'Crispa'	0.4 to 0.8 m	1 to 1.5 m
<i>Vaccinium macrocarpon</i>	0.1 to 0.3 m	0.5 to 0.8 m
<i>Vaccinium vitis-idaea</i>	0.2 to 0.3 m	0.2 to 0.3 m
<i>Viburnum davidii</i>	0.3 to 1 m	1 to 1.5 m

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

<i>Ceanothus</i> varieties	1 to 1.5 m	1 to 1.5 m
<i>Clematis</i> durandii	1.2 to 1.5 m	1 to 1.5 m
<i>Clematis</i> texensis varieties	1 to 1.5 m	1 to 1.5 m
<i>Lavandula angustifolia</i> varieties	0.3 to 0.5 m	0.3 to 0.5 m
<i>Perovskia abrotanoides</i>	1 to 1.5 m	1 to 1.5 m

9. Climbers

See Table no. 50, Climbers

Conifers

Genus/species/variety	Height	Width
1. Large trees (20-40 m)		
<i>Abies</i> concolor	20 to 25 m	4 to 8 m
<i>Abies</i> homolepis	20 to 25 m	4 to 6 m
<i>Abies</i> nordmanniana	25 to 40 m	5 to 8 m
<i>Cedrus atlantica</i> 'Glauca'	15 to 40 m	6 to 10 m
<i>Cedrus</i> deodara	15 to 20 m	6 to 10 m
<i>Cedrus</i> libani	15 to 20 m	6 to 10 m
<i>Cupressocyparis leylandii</i>	15 to 25 m	2 to 5 m
<i>Ginkgo biloba</i>	15 to 30 m	10 to 15 m
<i>Larix decidua</i>	25 to 50 m	4 to 10 m
<i>Larix kaempferi</i>	25 to 30 m	8 to 10 m
<i>Metasequoia glyptostroboides</i>	20 to 35 m	6 to 8 m
<i>Picea abies</i>	25 to 60 m	6 to 10 m
<i>Picea</i> omorika	15 to 35 m	2 to 3 m
<i>Picea</i> orientalis	20 to 30 m	4 to 8 m
<i>Picea</i> pungens	15 to 25 m	6 to 8 m
<i>Picea</i> sitchensis	20 to 25 m	6 to 10 m
<i>Pinus jeffreyi</i>	20 to 25 m	8 to 12 m
<i>Pinus nigra</i> austriaca	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</i> caesia	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)		
<i>Abies procera</i> 'Glauca'	15 to 18 m	4 to 6 m
<i>Abies</i> veitchii	15 to 18 m	4 to 6 m
<i>Cedrus</i> deodara	15 to 20 m	6 to 10 m
<i>Cedrus</i> libani	15 to 20 m	6 to 10 m
<i>Picea breweriana</i>	10 to 15 m	4 to 6 m
<i>Picea</i> pungens	15 to 25 m	6 to 8 m
<i>Picea</i> pungens varieties	10 to 15 m	3 to 4 m
<i>Picea</i> pungens 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</i> peuce	10 to 20 m	4 to 6 m
<i>Pinus</i> schweinerii	12 to 15 m	7 to 10 m
<i>Sequoia sempervirens</i>	6 bis 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





Groups according to size and growth rates 1

Genus/species/variety	Height	Width
3. Small trees (7-12 / 15 m)		
Abies koreana	5 to 8 m	2 to 3 m
Araucaria araucana	5 to 10 m	3 to 6 m
Cedrus species and varieties	5 to 12 m	3 to 10 m
Chamaecyparis lawsonia varieties	4 to 10 m	1 to 4 m
Chamaecyparis nootkatensis 'Pendula'	8 to 15 m	3 to 5 m
Chamaecyparis pisifera varieties	5 to 8 m	3 to 4 m
Cupressocyparis leylandii 'Castlewellan Gold'	7 to 12 m	2 to 4 m
Juniperus chinensis 'Keteleeri'	2 to 10 m	1 to 3 m
Juniperus virginiana 'Canaertii'	5 to 7 m	2 to 4 m
Juniperus virginiana 'Glauca'	6 to 10 m	2 to 4 m
Larix kaempferi 'Diana'	3 to 8 m	2 to 3 m
Larix kaempferi 'Pendula'	7 to 10 m	2 to 3 m
Picea abies varieties	3 to 8 m	1 to 5 m
Picea omorika varieties	4 to 10 m	1 to 3 m
Picea orientalis varieties	8 to 15 m	4 to 7 m
Picea pungens varieties	10 to 20 m	3 to 8 m
Pinus aristata	2 to 6 m	1 to 2.5 m
Pinus contorta	10 to 20 m	4 to 6 m
Pinus contorta 'Compacta'	2 to 15 m	2 to 6 m
Pinus densiflora 'Pumila'	2 to 3 m	1 to 3 m
Pinus leucodermis	6 to 15 m	3 to 6 m
Pinus leucodermis 'Compact Gem'	6 to 10 m	3 to 6 m
Pinus mugo	4 to 8 m	2 to 4 m
Pinus nigra varieties	4 to 6 m	2 to 3 m
Pinus parviflora 'Glauca'	5 to 15 m	4 to 8 m
Pinus peuce	10 to 20 m	4 to 6 m
Pinus strobus 'Radiata'	3 to 5 m	2 to 3 m
Pinus sylvestris varieties	4 to 10 m	1 to 2 m
Pinus wallichiana 'Densa Hill'	5 to 7 m	1 to 2 m
Pseudolarix amabilis	8 to 15 m	4 to 8 m
Sciadopitys verticillata	5 to 10 m	3 to 4 m
Sequoia sempervirens	6 to 12 m	3 to 4 m
Taxus baccata	5 to 18 m	5 to 10 m
Taxus baccata varieties	2 to 8 m	1 to 8 m
Thuja occidentalis varieties	3 to 8 m	1 to 2 m
Thuja plicata varieties	8 to 15 m	3 to 7 m
Thuja standishii	8 to 10 m	4 to 6 m
Thujopsis dolabrata	5 to 8 m	4 to 6 m
Tsuga diversifolia	5 to 10 m	3 to 4 m
Tsuga mertensiana	8 to 15 m	2 to 4 m
Tsuga mertensiana 'Glauca'	8 to 12 m	2 to 4 m

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

Genus/species/variety	Height	Width
Cedrus atlantica varieties	5 to 12 m	3 to 8 m
Cedrus deodara 'Pendula'	3 to 5 m	3 to 5 m
Chamaecyparis species and varieties	4 to 10 m	1 to 3 m
Cryptomeria japonica	6 to 8 m	2 to 3 m
Cryptomeria japonica 'Cristata	6 to 8 m	2 to 3 m
Cryptomeria japonica 'Elegans Viridis	6 to 8 m	2 to 3 m
Juniperus communis 'Vemboö'	3 to 5 m	0.5 to 1 m
Juniperus scopulorum 'Wichita Blue'	3 to 5 m	1 to 2 m'
Juniperus species and varieties	2 to 4 m	1 to 3 m
Larix kaempferi 'Diana'	3 to 8 m	2 to 3 m
Picea abies 'Acrocona'	3 to 6 m	1 to 5 m
Picea abies 'Inversa'	3 to 8 m	1 to 4 m
Picea abies 'Little Gem'	3 to 8 m	1 to 4 m
Picea abies 'Maxwellii'	3 to 8 m	1 to 4 m
Picea abies 'Nidiformis'	1 to 5 m	1 to 4 m
Picea abies 'Pygmaea'	3 to 5 m	1 to 4 m
Picea abies 'Virgata'	3 to 8 m	1 to 4 m
Pinus aristata	2 to 6 m	1 to 3 m
Pinus contorta 'Compacta'	2 to 15 m	2 to 6 m
Pinus densiflora 'Pumila'	2 to 3 m	1 to 3 m
Pinus mugo varieties	4 to 5 m	2 to 4 m
Pinus strobus 'Radiata'	3 to 5 m	2 to 3 m
Pinus sylvestris 'Watereri'	3 to 5 m	3 to 5 m
Taxus species and varieties	2 to 8 m	1 to 8 m
Thuja species and varieties	3 to 8 m	1 to 2 m
Thujopsis dolabrata	5 to 8 m	4 to 6 m
Tsuga canadensis 'Pendula'	3 to 4 m	3 to 4 m
Tsuga diversifolia	5 to 10 m	3 to 4 m
Tsuga mertensiana 'Glauca'	8 to 12 m	2 to 4 m

5. Normal shrubs / medium shrubs (1.5-3 m)

Juniperus media 'Pfitzeriana Aurea'	2 to 4 m	2 to 6 m
Picea pungens 'Edith'	2 to 3 m	2 to 3 m
Pinus mugo mughus	2 to 5 m	2 to 5 m
Taxus baccata 'Washingtonii'	1.5 to 5 m	1 to 8 m
Taxus cuspidata 'Nana'	1 to 3 m	3 to 7 m
Thuja occidentalis 'Woodwardii'	1 to 3 m	2 to 4 m

6. Small shrubs (0.5-1.5 m)

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





1 Groups according to size and growth rates

Genus/species/variety	Height	Width
6. Small shrubs (0.5-1.5 m)		
<i>Pinus parviflora</i> 'Negishi'	1 to 1.5 m	0.8 to 1.5 m
<i>Pinus pumila</i> varieties	2 to 3 m	1 to 2 m
<i>Pinus strobus</i> 'Macopin'	1 to 1.5 m	1 to 1.5 m
<i>Pinus strobus</i> 'Radiata'	3 to 5 m	2 to 3 m
<i>Taxus baccata</i> 'Repandens'	0.5 to 0.7 m	2 to 3 m
<i>Taxus cuspidata</i> 'Nana'	1 to 3 m	3 to 7 m
<i>Taxus media</i> 'Brownii'	2 to 3 m	3 to 4 m
<i>Thuja occidentalis</i> 'Tiny Tim'	0.5 to 1 m	0.8 to 1.5 m

Genus/species/variety	Height	Width
7. Dwarf shrubs (0.1-0.5 m)		
<i>Juniperus communis</i> 'Repanda'	0.3 to 0.5 m	1.5 to 2 m
<i>Juniperus horizontalis</i> varieties	0.2 to 0.7 m	1.5 to 3 m
<i>Juniperus sabin</i> a varieties	0.5 to 1.5 m	2 to 3 m
<i>Juniperus squamata</i> varieties	0.3 to 0.8 m	1.5 to 3 m
<i>Picea abies</i> 'Pumila Glauca'	0.4 to 0.6 m	1 to 1.5 m
<i>Picea glauca</i> 'Echiniformis'	0.3 to 2 m	0.5 to 2 m
<i>Pinus mugo</i> 'Mops'	0.3 to 2 m	0.5 to 2 m
<i>Taxus baccata</i> 'Repandens'	0.5 to 0.7 m	2 to 3 m
<i>Thuja occidentalis</i> '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	Genus/species/variety
<i>Acer buergerianum</i>	<i>Acer platanoides</i> 'Faassens' Black'
<i>Acer campestre</i>	<i>Acer platanoides</i> 'Farlake's Green'
<i>Acer campestre</i> 'Elsrijk'	<i>Acer platanoides</i> 'Globosum'
<i>Acer campestre</i> 'Fastigiatum'	<i>Acer platanoides</i> 'Royal Red'
<i>Acer campestre</i> 'Huibers Elegant'	<i>Acer platanoides</i> 'Schwedleri'
<i>Acer campestre</i> 'Nanum'	<i>Acer pseudoplatanus</i>
<i>Acer campestre</i> 'Queen Elizabeth'	<i>Acer pseudoplatanus</i> 'Erectum'
<i>Acer cappadocicum</i>	<i>Acer pseudoplatanus</i> 'Negenia'
<i>Acer cappadocicum</i> 'Aureum'	<i>Acer rubrum</i>
<i>Acer cappadocicum</i> 'Rubrum'	<i>Acer rubrum</i> 'October Glory'
<i>Acer freemanii</i> 'Armstrong'	<i>Acer rubrum</i> 'Red Sunset'
<i>Acer freemanii</i> 'Autumn Blaze'	<i>Acer rubrum</i> 'Scanlon'
<i>Acer freemanii</i> 'Celzam'	<i>Acer saccharinum</i>
<i>Acer monspessulanum</i>	<i>Acer saccharinum</i> 'Wieri'
<i>Acer negundo</i>	<i>Acer saccharinum</i> 'Pyramidale'
<i>Acer platanoides</i>	<i>Acer saccharum</i>
<i>Acer platanoides</i> 'Cleveland'	<i>Acer tataricum</i>
<i>Acer platanoides</i> 'Columnare'	<i>Aesculus carnea</i> 'Briotii'
<i>Acer platanoides</i> 'Deborah'	<i>Aesculus hippocastanum</i>
<i>Acer platanoides</i> 'Drummondii'	<i>Aesculus hippocastanum</i> 'Baumannii'
<i>Acer platanoides</i> 'Emerald Queen'	<i>Aesculus hippocastanum</i>
<i>Acer platanoides</i> 'Eurostar'	'Umbraculifera'

Genus/species/variety	Genus/species/variety
<i>Aesculus hippocastanum</i> 'Pyramidalis'	<i>Fraxinus excelsior</i> 'Westhof's Glorie'
<i>Ailanthus altissima</i>	<i>Fraxinus ornus</i>
<i>Alnus cordata</i>	<i>Fraxinus pennsylvanica</i> 'Cimmzam'
<i>Alnus glutinosa</i>	<i>Fraxinus pennsylvanica</i> 'Patmore'
<i>Alnus incana</i>	<i>Fraxinus pennsylvanica</i> 'Summit'
<i>Alnus spaethii</i>	<i>Gleditsia triacanthos</i>
<i>Amelanchier lamarckii</i>	<i>Gleditsia triacanthos</i> inermis
<i>Betula nigra</i>	<i>Gleditsia triacanthos</i> 'Shademaster'
<i>Betula pendula</i>	<i>Gleditsia triacanthos</i> 'Skyline'
<i>Betula pendula</i> 'Dalecarlica'	<i>Gleditsia triacanthos</i> 'Sunburst'
<i>Betula pendula</i> 'Fastigiata'	<i>Juglans cinerea</i>
<i>Betula pendula</i> 'Tristis'	<i>Juglans regia</i>
<i>Betula pendula</i> 'Youngii'	<i>Liquidambar styraciflua</i>
<i>Betula jacquemontii</i>	<i>Liquidambar styraciflua</i> 'Gum Ball'
<i>Carpinus betulus</i>	<i>Liquidambar styraciflua</i> 'Moraine'
<i>Carpinus betulus</i> 'Columnaris'	<i>Liquidambar styraciflua</i> 'Slender
<i>Carpinus betulus</i> 'Fastigiata'	<i>Silhouette'</i>
<i>Carpinus betulus</i> 'Frans Fontaine'	<i>Liriodendron tulipifera</i>
<i>Castanea sativa</i>	<i>Liriodendron tulipifera</i> 'Fastigiatum'
<i>Catalpa bignonioides</i>	<i>Magnolia kobus</i>
<i>Catalpa bignonioides</i> 'Nana'	<i>Magnolia soulangeana</i>
<i>Celtis australis</i>	<i>Magnolia loebneri</i> 'Merrill'
<i>Cercidiphyllum japonicum</i>	<i>Malus</i> 'Beverly'
<i>Cornus mas</i>	<i>Malus</i> 'Butterball'
<i>Corylus colurna</i>	<i>Malus</i> 'Red Jewel'
<i>Crataegus lavallei</i> 'Carrierei'	<i>Malus baccata</i> 'Street Parade'
<i>Crataegus laevigata</i> 'Paul's Scarlet'	<i>Malus sylvestris</i>
<i>Crataegus monogyna</i>	<i>Malus floribunda</i>
<i>Crataegus monogyna</i> 'Stricta'	<i>Malus</i> 'Hillieri'
<i>Crataegus coccinea</i>	<i>Malus</i> 'Charlottae'
<i>Crataegus crus galli</i>	<i>Malus</i> 'Eleyi'
<i>Fagus sylvatica</i>	<i>Malus</i> 'Hopa'
<i>Fagus sylvatica</i> 'Atropunicea'	<i>Malus</i> 'John Downie'
<i>Fagus sylvatica</i> 'Pendula'	<i>Malus</i> 'Liset'
<i>Fagus sylvatica</i> 'Purpurea'	<i>Malus</i> 'Nicoline'
<i>Fagus sylvatica</i> 'Purpurea Pendula'	<i>Malus</i> 'Professor Sprenger'
<i>Fagus sylvatica</i> 'Riversii'	<i>Malus</i> 'Profusion'
<i>Fagus sylvatica</i> 'Swat Magret'	<i>Malus</i> 'Red Sentinel'
<i>Fraxinus americana</i> microcarpa	<i>Malus</i> 'Royalty'
<i>Fraxinus americana</i> 'Autumn Applause'	<i>Malus</i> 'Rudolph'
<i>Fraxinus americana</i> 'Autumn Purple'	<i>Malus</i> 'Striped Beauty'
<i>Fraxinus americana</i> 'Skyline'	<i>Malus</i> 'Van Eseltine'
<i>Fraxinus angustifolia</i> 'Raywood'	<i>Malus</i> 'Tina'
<i>Fraxinus excelsior</i>	<i>Malus tschonoskii</i>
<i>Fraxinus excelsior</i> 'Atlas'	<i>Morus alba</i> 'Fruitless'
<i>Fraxinus excelsior</i> 'Diversifolia'	<i>Morus alba</i> 'Macrophylla'
<i>Fraxinus excelsior</i> 'Geessink'	<i>Ostrya carpinifolia</i>
<i>Fraxinus excelsior</i> 'Jaspidea'	<i>Paulownia tomentosa</i>
<i>Fraxinus excelsior</i> 'Nana'	<i>Parrotia persica</i>
<i>Fraxinus excelsior</i> 'Pendula'	





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

Genus/species/variety	Genus/species/variety
Platanus acerifolia	Quercus robur 'Fastigiata'
Platanus acerifolia 'Alphen's Globe'	Quercus robur 'Fastigiata Koster'
Platanus acerifolia 'Tremonia'	Quercus robur
Platanus orientalis	Robinia 'Casque Rouge'
Populus alba 'Nivea'	Robinia pseudoacacia
Populus balsamifera	Robinia pseudoacacia 'Bessoniana'
Populus berolinensis	Robinia pseudoacacia 'Frisia'
Populus canescens	Robinia pseudoacacia 'Sandraudiga'
Populus canadensis 'Robusta'	Robinia pseudoacacia 'Semperflorans'
Populus nigra	Robinia pseudoacacia 'Umbraculifera'
Populus nigra 'Italica'	Robinia pseudoacacia 'Monophylla'
Populus tremula	Salix alba
Populus tremula 'Erecta'	Salix alba 'Chermesina'
Prunus 'Accolade'	Salix alba 'Liempde'
Prunus avium	Salix alba 'Belders'
Prunus avium 'Plena'	Salix alba 'Tristis'
Prunus cerasifera 'Nigra'	Salix alba 'Tristis Resistenta'
Prunus fruticosa 'Globosa'	Sophora japonica
Prunus gondouinii 'Schnee'	Sophora japonica 'Regent'
Prunus maackii	Sorbus aria 'Lutescens'
Prunus maackii 'Amber Beauty'	Sorbus aria 'Magnifica'
Prunus padus	Sorbus aria 'Majestica'
Prunus padus 'Watereri'	Sorbus aucuparia
Prunus sargentii	Sorbus aucuparia 'Edulis'
Prunus schmittii	Sorbus aucuparia 'Fastigiata'
Prunus serrulata	Sorbus aucuparia 'Sheerwater Seedling'
Prunus serrulata 'Amanogawa'	Sorbus hybrida 'Gibbsii'
Prunus serrulata 'Kiku-shidare-zakura'	Sorbus intermedia
Prunus serrulata 'Kanzan'	Sorbus intermedia 'Brouwers'
Prunus serrulata 'Pink Perfection'	Sorbus serotina
Prunus serrulata 'Shimidsu-Sakura'	Sorbus thuringiaca 'Fastigiata'
Prunus serrulata 'Shirofugen'	Sorbus vilmorinii
Prunus subhirtella 'Autumnalis'	Tilia americana 'Nova'
Prunus subhirtella 'Autumnalis Rosea'	Tilia cordata
Prunus subhirtella 'Fukubana'	Tilia cordata 'Erecta'
Prunus yedoensis	Tilia cordata 'Greenspire'
Pyrus calleryana 'Chanticleer'	Tilia cordata 'Green Globe'
Pyrus calleryana 'Bradford'	Tilia cordata 'Rancho'
Pyrus communis 'Beech Hill'	Tilia cordata 'Roelvo'
Pyrus nivalis	Tilia euclora
Pyrus regelii	Tilia europaea
Pyrus salicifolia 'Pendula'	Tilia europaea 'Pallida'
Quercus cerris	Tilia flavescens 'Glenleven'
Quercus coccinea	Tilia henryana
Quercus frainetto	Tilia mongolica
Quercus palustris	Tilia platyphyllos
Quercus palustris 'Green Dwarf'	Tilia platyphyllos 'Laciniata'
Quercus palustris 'Green Pillar'	Tilia platyphyllos 'Örebro'
Quercus petraea	Tilia platyphyllos 'Prince's Street'
Quercus robur	

Genus/species/variety	Genus/species/variety
Tilia platyphyllos 'Rubra'	Ulmus hollandica 'Groeneveld'
Tilia tomentosa	Ulmus hollandica 'Plantijn'
Tilia tomentosa 'Brabant'	Ulmus hollandica 'Lobel'
Ulmus carpinifolia	Ulmus laevis
Ulmus carpinifolia 'Wredei'	Ulmus 'Sapporo Autumn Gold'
Ulmus 'Columella'	Zelkova serrata
Ulmus glabra 'Pendula'	Zelkova serrata 'Green Vase'
Ulmus hollandica 'Commelin'	Zelkova serrata 'Village Green'
Ulmus hollandica 'Dodoens'	

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

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.

Genus/species/variety	Height	Width
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





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

Genus/species/variety	Height	Width
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 jaquemontii	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
Crataegus monogyna	5 to 8 m	3 to 5 m
Crataegus monogyna 'Stricta'	4 to 6 m	1 to 2 m
Crataegus persimilis 'Splendens'	5 to 7 m	3 to 5 m
Davidia involuocrata 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

Genus/species/variety	Height	Width
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 10 m	4 to 6 m
Fraxinus ornus 'Anita'	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 s. 'Slender Silhouette'	10 to 15 m	0,5 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 soulangeana	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





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

Genus/species/variety	Height	Width	Genus/species/variety	Height	Width
Prunus cerasifera 'Nigra'	4 to 7 m	3 to 5 m	Sorbus auc. 'Sheerwater Seedling'	6 to 10 m	3 to 4 m
Prunus fruticosa 'Globosa'	3 to 5 m	2 to 4 m	Sorbus hybrida 'Gibbsii'	5 to 7 m	3 to 4 m
Prunus hillieri 'Spire'	5 to 8 m	2 to 3 m	Sorbus intermedia 'Brouwers'	8 to 10 m	4 to 6 m
Prunus lusitanica	4,5 to 7 m	3 to 5 m	Sorbus thuringiaca 'Fastigiata'	5 to 8 m	3 to 4 m
Prunus lusitanica 'Angustifolia'	4 to 6 m	2 to 4 m	Sorbus vilmorinii	3 to 6 m	3 to 5 m
Prunus padus	6 to 11 m	5 to 8 m	Sorbus vulgaris	8 to 11 m	4 to 10 m
Prunus sargentii	6 to 12 m	4 to 8 m	Styrax japonicus	5 to 8 m	4 to 6 m
Prunus serrulata 'Amanogawa'	5 to 7 m	2 to 3 m	Styrax obassia	5 to 7 m	3 to 5 m
Prunus serrulata 'Kanzan'	6 to 10 m	5 to 7 m	Tilia cordata	12 to 16 m	9 to 13 m
Prunus serrulata 'Kiku-shidare-zakura'	4 to 6 m	3 to 4 m	Tilia cordata 'Erecta'	9 to 12 m	5 to 10 m
Prunus serrulata 'Okumiyako'	3 to 4 m	2 to 4 m	Tilia cordata 'Greenspire'	10 to 13 m	7 to 10 m
Prunus serrulata 'Shirofugen'	6 to 9 m	4 to 5 m	Tilia cordata 'Green Globe'	6 to 8 m	4 to 6 m
Prunus subhirtella 'Autumnalis'	4 to 5 m	3 to 5 m	Tilia cordata 'Roelvo'	10 to 15 m	6 to 10 m
Prunus subhirtella 'Fukubana'	3 to 6 m	2 to 4 m	Tilia cordata 'Winter Orange'	8 to 10 m	4 to 8 m
Prunus triloba	2 to 3 m	2 to 3 m	Tilia euchlora	12 to 15 m	6 to 10 m
Prunus yedoensis	5 to 7 m	5 to 7 m	Tilia europaea 'Pallida'	11 to 16 m	9 to 13 m
Pterocarya fraxinifolia	10 to 13 m	10 to 18 m	Tilia henryana	9 to 12 m	6 to 8 m
Pyrus calleryana 'Chanticleer'	7 to 10 m	4 to 5 m	Tilia mongolica	6 to 12 m	4 to 8 m
Pyrus nivalis	6 to 10 m	5 to 7 m	Tilia platyphyllos	11 to 16 m	11 to 14 m
Pyrus salicifolia	4 to 5 m	3 to 4 m	Tilia platyphyllos 'Laciniata'	10 to 15 m	6 to 10 m
Quercus cerris	8 to 12 m	6 to 8 m	Tilia platyphyllos 'Örebro'	10 to 18 m	5 to 8 m
Quercus coccinea	10 to 12 m	7 to 10 m	Tilia platyphyllos 'Prince's Street'	15 to 20 m	8 to 10 m
Quercus frainetto	12 to 14 m	8 to 12 m	Tilia platyphyllos 'Rubra'	12 to 16 m	10 to 13 m
Quercus palustris	10 to 13 m	6 to 12 m	Tilia tomentosa	10 to 13 m	12 to 14 m
Quercus petraea	10 to 14 m	8 to 12 m	Tilia tomentosa 'Brabant'	10 to 14 m	8 to 10 m
Quercus robur	13 to 16 m	9 to 12 m	Tilia vulgaris	10 to 15 m	8 to 13 m
Quercus robur 'Fastigiata'	10 to 13 m	6 to 8 m	Ulmus carpinifolia 'Wredei'	8 to 10 m	3 to 4 m
Quercus rubra	10 to 15 m	7 to 12 m	Ulmus 'Columella'	15 to 20 m	4 to 6 m
Rhus typhina	5 to 8 m	4 to 6 m	Ulmus glabra 'Pendula'	3 to 5 m	6 to 10 m
Robinia pseudoacacia	10 to 16 m	7 to 18 m	Ulmus hollandica 'Lobel'	10 to 13 m	5 to 6 m
Robinia pseudoacacia 'Bessoniana'	10 to 14 m	5 to 10 m	Ulmus laevis	10 to 12 m	9 to 12 m
Robinia pseudoacacia 'Sandraudiga'	10 to 14 m	7 to 10 m	Ulmus 'Sapporo Autumn Gold'	12 to 15 m	5 to 7 m
Robinia pseudoacacia 'Semperflorens'	10 to 16 m	7 to 11 m	Zelkova serrata	8 to 12 m	8 to 12 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			





4 Bizarre Habits

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.

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

Genus/species/variety	Height	Width	Habit
1. Deciduous plants			
<i>Acer campestre</i> 'Elsrijk'	8-12 m	4-6 m	broadly ovoid
<i>Acer freemanii</i> 'Celzam'	12-15 m	6-8 m	small conical
<i>Acer platanoides</i> 'Eurostar'	12-15 m	5-6 m	broadly ovoid
<i>Acer pseudoplatanus</i> 'Negenia'	20-25 m	6-8 m	domed ovoid
<i>Acer rubrum</i> varieties	7-12 m	4-7 m	broadly conical to ovoid
<i>Acer rufrinerve</i>	4-7 m	2-4 m	asymmetrically broadly conical
<i>Alnus cordata</i>	8-15 m	3-6 m	broadly conical to ovoid
<i>Alnus incana</i> varieties	8-12 m	3-6 m	asymmetrically broadly conical
<i>Alnus spaethii</i>	12-15 m	6-8 m	asymmetrically, conical
<i>Betula ermanii</i>	15-20 m	6-8 m	broadly conical
<i>Betula maximowicziana</i>	15-20 m	8-12 m	asymmetrically broadly conical
<i>Carpinus betulus</i> 'Quercifolia'	15-25 m	6-10 m	domed, broadly ovoid
<i>Cornus controversa</i>	6-8 m	4-6 m	broadly conical to round
<i>Corylus columna</i>	12-15 m	6-8 m	broadly conical to round
<i>Fagus sylvatica</i> varieties	15-25 m	10-15 m	domed to round crown
<i>Fraxinus ang.</i> 'Raywood'	15-20 m	7-10 m	broadly ovoid
<i>Fraxinus excelsior</i> varieties	20-25 m	10-15 m	broadly conical to ovoid
<i>Gleditsia triacanthos</i> 'Skyline'	12-15 m	5-8 m	loosely broadly conical
<i>Ilex aquifolium</i> (single stem)	5-10 m	3-4 m	broadly conical to ovoid
<i>Liquidambar styraciflua</i>	10-15 m	4-8 m	asymmetrically, conical
<i>Liquidambar</i> s. 'Moraine'	10-25 m	6-10 m	compact conical
<i>Liriodendron</i> t. 'Fastigiatum'	15-20 m	5-7 m	broadly vase-shaped
<i>Malus</i> 'Evereste'	4-6 m	3-5 m	broadly conical
<i>Malus tschonoskii</i>	8-12 m	3-5 m	broadly ovoid
<i>Magnolia</i> g. 'Blanchard'	6-10 m	4-6 m	asymmetrically broadly conical
<i>Nyssa sylvatica</i>	15-20 m	8-12 m	flattened crown
<i>Platanus acerifolia</i> 'Tremonia'	15-30 m	8-10 m	broadly conical to ovoid
<i>Populus berolinensis</i>	20-25 m	8-10 m	asymmetrically, domed
<i>Prunus avium</i>	15-20 m	8-12 m	broadly ovoid to round
<i>Prunus hillieri</i> 'Spire'	6-8 m	2-3 m	broadly conical to round
<i>Prunus schmittii</i>	6-12 m	3-4 m	broadly conical
<i>Pyrus calleryana</i> varieties	7-9 m	4-5 m	loose and broadly conical
<i>Pyrus communis</i>	5-15 m	5-10 m	domed crown
<i>Quercus coccinea</i>	15-20 m	8-12 m	open, loosely asymmetrical
<i>Robinia</i> p. 'Monophylla'	10-15 m	6-8 m	slenderly ovoid, domed
<i>Robinia</i> p. 'Sandraudiga'	15-20 m	8-12 m	asymmetrically broadly conical
<i>Salix alba</i> 'Liempde'	25-30 m	8-10 m	conical to domed





Genus/species/variety	Height	Width	Habit
<i>Sophora japonica</i> 'Regent'	10-15 m	10-12 m	broadly ovoid
<i>Sorbus aria</i> varieties	6-12 m	4-6 m	broadly conical
<i>Sorbus aucuparia</i>			
'Sheerwater Seedling'	6-10 m	3-4 m	compactly ovoid
<i>Sorbus</i> 'Gibbsii'	5-7 m	3-4 m	broadly conical
<i>Sorbus intermedia</i> varieties	8-10 m	4-6 m	extended
<i>Sorbus thuring.</i> 'Fastigiata'	5-8 m	3-4 m	broadly conical
<i>Tilia cordata</i> 'Greenspire'	12-15 m	6-12 m	broadly conical
<i>Tilia cordata</i> 'Rancho'	9-12 m	4-6 m	small conical
<i>Tilia cordata</i> 'Roelvo'	10-15 m	6-10 m	small conical
<i>Tilia euchlora</i>	15-18 m	7-10 m	domed and overhanging
<i>Tilia flavescens</i> 'Glenleven'	15-20 m	8-12 m	loosely ovoid
<i>Tilia europaea</i> 'Pallida'	30-40 m	10-15 m	domed to round crown
<i>Tilia platyphyllos</i> 'Örebro'	10-18 m	5-8 m	small conical to ovoid
<i>Ulmus</i> hybrids	12-15 m	5-6 m	compact to loosely conical

2. Conifers

<i>Abies</i> species and varieties	5-8/25-30	2-3/8-10	broadly conical to flattened
<i>Araucaria araucana</i>	5-7 m	3-4 m	flattened crown
<i>Chamaecyparis</i> species and varieties	3-4/8-10	1-2/2-4 m	broadly conical
<i>Juniperus</i> species and varieties	1-2/6-8 m	1-2/2-4 m	asymmetrical, loose
<i>Larix</i> species	25-30 m	8-10 m	broadly conical
<i>Metasequoia glyptostroboides</i>	20-30 m	6-8 m	loose, conical
<i>Picea</i> species and varieties	1-2/25-40	1-2/6-8	loose, conical
<i>Picea pungens</i> 'Edith'	3-3,5 m	2-3 m	broadly conical to ovoid
<i>Pinus</i> species and varieties	2-6/20-30	1-2/6-10	asymmetrically, conical
<i>Pseudolarix amabilis</i>	8-12 m	4-8 m	loosely asymmetrical
<i>Pseudotsuga menziesii</i> species	30-40 m	7-10 m	extendedly asymmetrical
<i>Sciadopitys verticillata</i>	5-8 m	3-4 m	loosely conical
<i>Sequoiadendron giganteum</i>	25-35 m	10-12 m	always conical
<i>Taxodium distichum</i>	20-25 m	5-8 m	loosely conical
<i>Taxus baccata</i> 'Dovastoniana'	6-8 m	4-6 m	loosely conical
<i>Taxus baccata</i> 'Overeynderi'	3-5 m	2-4 m	broadly ovoid
<i>Taxus media</i> varieties	3-5 m	2-4 m	loosely reaching all directions
<i>Thuja</i> species and varieties	3-5/15-20	1-2/3-5	compactly conical
<i>Thujopsis dolabrata</i>	5-10 m	4-8 m	broadly conical
<i>Tsuga</i> species	5-8/12-15	3-4/5-8	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
<i>Acer campestre</i> 'Nanum'	4-7 m	2-3 m	yellow
<i>Acer platanoides</i> 'Globosum'	5-8 m	3-5 m	yellow
<i>Aesculus h.</i> 'Umbraculifera'	5-7 m	4-6 m	white
<i>Catalpa bignonioides</i> 'Nana'	4-6 m	2-3 m	no flowers
<i>Fraxinus excelsior</i> 'Nana'	3-5 m	2-3 m	no flowers
<i>Liquidambar styraciflua</i> 'Gum Ball'	3-8 m	2-4 m	inconspicuous
<i>Malus toringo</i> 'Browers Beauty'	5-6 m	5-6 m	pink-white, fragrance
<i>Platanus acerifolia</i> 'Alphen's Globe'	4-7 m	3-4 m	inconspicuous
<i>Prunus fruticosa</i> 'Globosa'	3-5 m	2-3 m	white
<i>Quercus palustris</i> 'Green Dwarf'	4-6 m	4-6 m	inconspicuous
<i>Robinia p.</i> 'Umbraculifera'	4-6 m	4-6 m	no flowers
<i>Tilia cordata</i> '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.

Genus/species/variety	Height	Width
1. Deciduous plants		
<i>Acer campestre</i> 'Fastigiatum'	10-12 m	2-3 m
<i>Acer freemanii</i> 'Armstrong'	10-15 m	2-3 m
<i>Acer platanoides</i> 'Columnare'	8-10 m	3-4 m
<i>Acer pseudoplatanus</i> 'Erectum'	15-20 m	6-8 m
<i>Acer saccharinum</i> 'Pyramidale'	15-20 m	6-8 m
<i>Betula pendula</i> 'Fastigiata'	15-20 m	4-6 m
<i>Carpinus betulus</i> 'Columnaris'	8-12 m	6-10 m
<i>Carpinus betulus</i> 'Fastigiata'	10-15 m	6-10 m
<i>Carpinus betulus</i> 'Frans Fontaine'	5-8 m	3-4 m
<i>Carpinus betulus</i> 'Fastigiata Monument'	4-6 m	1-1.5 m
<i>Carpinus betulus</i> 'Lucas'	8-10 m	2-3 m
<i>Fagus sylvatica</i> 'Dawyck'	15-25 m	3-6 m
<i>Fagus sylvatica</i> 'Dawyck Gold'	4-8 m	2-3 m
<i>Liquidambar styraciflua</i> 'Slender Silhouette'	10-15 m	0.5-0.8 m
<i>Malus</i> 'Van Eseltine'	4-6 m	3-4 m
<i>Malus tschonoskii</i>	8-12 m	2-4 m
<i>Populus nigra</i> 'Italica'	25-30 m	4-8 m
<i>Populus tremula</i> 'Erecta'	10-15 m	2-3 m
<i>Prunus hillieri</i> 'Spire'	6-8 m	2-3 m
<i>Prunus serrulata</i> 'Amanogawa'	4-7 m	1-4 m
<i>Pyrus communis</i> 'Beech Hill'	8-10 m	3-5 m
<i>Quercus palustris</i> 'Green Pillar'	15-20 m	4-5 m
<i>Quercus robur</i> 'Fastigiata'	25-30 m	6-10 m
<i>Robinia pseudoacacia</i> 'Pyramidalis'	6-10 m	5-8m
<i>Salix alba</i> 'Limpde'	15-20 m	3-6 m
<i>Sorbus aria</i> 'Majestica'	6-12 m	4-6 m
<i>Sorbus aucuparia</i> 'Fastigiata'	5-7 m	2-4 m
<i>Sorbus aucuparia</i> 'Sheerwater Seedling'	6-10 m	3-4 m
<i>Sorbus thuringiaca</i> 'Fastigiata'	5-8 m	3-4 m
<i>Tilia platyphyllos</i> 'Prince's Street'	12 m	5 m
<i>Ulmus</i> 'Columella'	15-20 m	4-6 m
<i>Tilia cordata</i> 'Erecta'	15-18 m	5-10 m
<i>Ulmus hollandica</i> 'Lobel'	12-15 m	4-6 m

Genus/species/variety	Height	Width
2. Conifers		
<i>Chamaecyparis lawsoniana</i> 'Alumigold'	6-8 m	2-3 m
<i>Chamaecyparis lawsoniana</i> 'Alumii'	8-10 m	2-4 m
<i>Chamaecyparis lawsoniana</i> 'Columnaris'	5-10 m	1-2 m
<i>Chamaecyparis lawsoniana</i> 'Columnaris Glauca'	5-8 m	1-2 m
<i>Chamaecyparis lawsoniana</i> 'Ellwoodii'	2-4 m	1-1,5 m
<i>Chamaecyparis lawsoniana</i> 'Ellwood's Gold'	2-3 m	0.5-1.5 m
<i>Chamaecyparis lawsoniana</i> 'Kelleriis Gold'	6-8 m	2-3 m
<i>Chamaecyparis lawsoniana</i> 'Lane'	4-7 m	2-3 m
<i>Cupressocyparis leylandii</i>	15-25 m	2-3 m
<i>Cupressocyparis leylandii</i> 'Castlewellan Gold'	7-12 m	2-4 m
<i>Juniperus chinensis</i> 'Keteleeri'	8-10 m	1.5-2 m
<i>Juniperus chinensis</i> 'Spartan'	1.5-3 m	0.8-1.2 m
<i>Juniperus communis</i> 'Hibernica'	3-4 m	1-2 m
<i>Juniperus communis</i> 'Meyer'	3-5 m	1-1.5 m
<i>Juniperus communis</i> 'Suecica'	3-4 m	1-1.5 m
<i>Juniperus communis</i> 'Vemboö'	3-5 m	0.5-0.8 m
<i>Juniperus chinensis</i> 'Blauw'	1.5-2.5 m	1-2 m
<i>Juniperus virginiana</i> 'Glauca'	6-8 m	2-4 m
<i>Juniperus scopulorum</i> 'Skyrocket'	5-7 m	0.5-1 m
<i>Juniperus scopulorum</i> 'Wichita Blue'	4-6 m	1-1.5 m
<i>Picea omorika</i>	20-25 m	2-4 m
<i>Pinus mugo</i> 'Columnaris'	2-3 m	0.8-1.2 m
<i>Pinus nigra</i> pyramidata	5-8 m	2-3 m
<i>Pinus sylvestris</i> 'Fastigiata'	4-7 m	1-2 m
<i>Taxus baccata</i> 'Fastigiata'	5-7 m	2-5 m
<i>Taxus baccata</i> 'Fastigiata Aureomarginata'	2-4 m	2-3 m
<i>Taxus baccata</i> 'Fastigiata Robusta'	3-8 m	1-2 m
<i>Taxus media</i> 'Hicksii'	3-5 m	2-4 m
<i>Thuja occidentalis</i> 'Columna'	5-8 m	1-2 m
<i>Thuja occidentalis</i> 'Holmstrup'	3-4 m	0.8-1.5 m
<i>Thuja occidentalis</i> 'Smaragd'	3-5 m	1-2 m

8 Umbrella crowns

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.

Genus/species/variety	Height	Width	Habit development
1. Deciduous plants			
<i>Acer ginnala</i>	5-6 m	4-10 m	always extended
<i>Amelanchier lamarckii</i>	5-8 m	3-5 m	standards have broad habits
<i>Aralia elata</i>	3-5 m	2-3 m	several stems, extended





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

2. Conifers

Araucaria araucana	5-7 (10) m	3-4 m	flattened when old
Cedrus libani	15-20 m	6-15 m	flat like a board
Pinus densiflora 'Pumila'	2-3 m	1.5-2.5 m	compact umbrella crown
Pinus nigra austriaca	20-25 m	6-10 m	flattened when old
Pinus sylvestris	10-30 m	5-10 m	asymmetrically umbrella-shaped
Pinus sylvestris 'Norske Typ'	8-12 m	6-8 m	asymmetrically umbrella-shaped

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
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1. Deciduous plants

Buddleja alternifolia	2-3 m
Betula pendula 'Youngii'	3-5 m
Cotoneaster dammeri 'Cardinal'	0.5-1.2 m
Cotoneaster dammeri 'Coral Beauty'	1.2-2 m
Cotoneaster dammeri radicans	0.5-0.7 m
Cotoneaster dammeri 'Skogholm'	2-5 m
Cotoneaster dammeri 'Winterjuwel'	1.2-2 m
Cytisus beanii	0.5-0.8 m
Cytisus decumbens	0.3-0.5 m
Cytisus kewensis	0.5-1 m
Daphne cneorum	0.3-0.5 m
Deutzia kalmiflora	0.5-1 m
Euonymus fortunei 'Coloratus'	0.8-1.5 m
Euonymus fortunei 'Dart's Blanket'	1-2 m
Euonymus fortunei radicans	0.8-1.5 m
Forsythia 'Lynwood'	2-3 m
Forsythia 'Spectabilis'	2-3 m
Forsythia suspensa fortunei	3-5 m
Jasminum nudiflorum	2-5 m
Lespedeza thunbergii	2-4 m
Lycium barbarum	3-4 m
Potentilla 'Goldfinger'	0.3-0.8 m
Potentilla 'Goldstar'	0.3-0.5 m
Potentilla 'Goldteppich'	0.3-0.8 m
Prunus subhirtella 'Pendula'	2-3 m
Pyrus salicifolia	2-3 m
Pyrus salicifolia 'Pendula'	2-3 m
Rosa - Ground Cover Roses	0.5-2 m
Rosa arvensis	1-2 m
Rosa multibracteata	1-1.5 m
Rosa multiflora	1.2-3 m
Rubus caesius	1-3 m
Rubus calycinoides	0.5-1 m
Rubus fruticosus	2-3 m
Salix caprea 'Pendula'	1-2 m





9 Draping plants

Genus/species/variety	Length of draping
<i>Salix purpurea</i> 'Pendula'	1-2 m
<i>Spiraea thunbergii</i>	0.5-1.2 m
<i>Spiraea trilobata</i>	1-1.5 m
<i>Spiraea vanhouttei</i>	1-1.5 m
<i>Stephanandra incisa</i> 'Crispa'	0.5-1.5 m
<i>Symphoricarpos chenaultii</i> 'Hancock'	1-3 m
<i>Tamarix parviflora</i>	1-2 m
<i>Vaccinium macrocarpon</i>	0.3-0.8 m

2. Climbers

<i>Akebia quinata</i>	1-2 m
<i>Aristolochia macrophylla</i>	2-3 m
<i>Celastrus orbiculatus</i>	2-3 m
<i>Clematis</i> species and varieties	1-3 m
<i>Hedera colchica</i>	1-2 m
<i>Hedera helix</i>	2-5 m
<i>Hydrangea petiolaris</i>	1-2 m
<i>Jasminum nudiflorum</i>	2-5 m
<i>Lonicera</i> species and varieties	1-3 m
<i>Parthenocissus quinquefolia</i> varieties	4-6 m
<i>Polygonum aubertii</i>	2-3 m
Rosa - Climbers	1-2 m
<i>Rubus fruticosus</i>	1-2 m
<i>Rubus henryi</i>	1-2 m
<i>Vitis coignetiae</i>	2-4 m

3. Conifers

<i>Cedrus atlantica</i> 'Glauca Pendula'	2-4 m
<i>Cedrus deodara</i> 'Pendula'	2-3 m
<i>Juniperus communis</i> 'Hornibrookii'	0.5-1 m
<i>Juniperus communis</i> 'Repanda'	0.5-1 m
<i>Juniperus horizontalis</i> 'Prince of Wales'	1-1.5 m
<i>Juniperus horizontalis</i> 'Wiltonii'	0.5-1 m
<i>Juniperus sabina</i> 'Tamariscifolia'	0.5-1 m
<i>Taxus baccata</i> 'Repandens'	0.3-0.5 m
<i>Tsuga canadensis</i> 'Pendula'	1-2 m

10 Overhanging crown/weeping forms

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.

Genus/species/variety	Height	Width	Habit development / special characteristics
1. Deciduous plants			
<i>Acer saccharinum</i> 'Wieri'	12-15 m	8-15 m	branches and twigs asymmetrically overhanging
<i>Alnus glutinosa</i> 'Imperialis'	6-10 m	4-6 m	loosely overhanging branches, bamboo-like
<i>Betula pendula</i> 'Darlecarlica'	15-20 m	6-8 m	branches and twigs loosely overhanging
<i>Betula pendula</i> 'Tristis'	10-22 m	6-8 m	twigs draping
<i>Betula pendula</i> 'Youngii'	5-7 m	3-5 m	umbrella crown, twigs hanging to the ground
<i>Caragana arborescens</i> 'Pendula'	1-3 m	1-1,5 m	twigs draping
<i>Cotoneaster dammeri</i> 'Skogholm'	1-1,5 m	1,5-2 m	draping 3-5 m
<i>Cotoneaster watereri</i> 'Pendulus'	2-3 m	1-2 m	twigs draping
<i>Fagus sylvatica</i> 'Pendula'	15-20 m	15-20 m	main branches arching, twigs draped
<i>Fagus sylvatica</i> 'Purple Fountain'	7-11 m	4-5 m	loosely overhanging
<i>Fagus sylvatica</i> 'Purpurea Pendula'	8-12 m	4-6 m	arching overhanging
<i>Forsythia suspensa fortunei</i>	2-3 m	2-3 m	twigs draping
<i>Fraxinus excelsior</i> 'Pendula'	8-10 m	6-8 m	umbrella crown, twigs draping
<i>Prunus serrulata</i> 'Kiku-shidare-zakura'	4-6 m	3-4 m	bell-shaped crown, twigs hanging limply
<i>Pyrus salicifolia</i>	4-7 m	3-4 m	loosely overhanging branches, twigs draped
Rosa - Tree Roses	1-1,5 m	1-1,5 m	twigs draping
<i>Salix acutifolia</i> 'Pendulifolia'	4-6 m	4-6 m	funnel crown, twigs tilting
<i>Salix caprea</i> 'Pendula'	1-2 m	1-2 m	bell-shaped crown, twigs draped
<i>Salix alba</i> 'Tristis'	15-20 m	12-15 m	branches and twigs draped
<i>Salix purpurea</i> 'Pendula'	0,5-1 m	1-2 m	grows normally upright when cut radically
<i>Sophora japonica</i> 'Pendula'	5-8 m	5-8 m	twigs draping
<i>Ulmus glabra</i> 'Pendula'	3-5 m	6-10 m	branches horizontal, twigs tilting





Genus/species/variety	Height	Width	Habit development / special characteristics
2. Conifers			
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 liling, 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 agening.

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 hinderance, 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!

Genus/species/variety	Yearly shoots	Life expectancy	Brittleness
1. Deciduous plants			
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	high
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	moderate
Betula papyrifera	45-70 cm	60-75 Years	low
Betula pendula	60-90 cm	70-100 Years	high
Cornus alba	80-150 cm	20-30 Years	low
Cornus stolonifera			
'Flaviramea'	80-150 cm	20-30 Years	none
Cotoneaster dammeri			
'Skogholm'	80-150 cm	20-30 Years	none
Forsythia intermedia			
varieties	80-120 cm	25-40 Years	low
Fraxinus americana			
varieties	60-80 cm		low
Fraxinus excelsior var.	80-100 cm	150-250 Years	none
Gleditsia triacanthos			
varieties	60-100 cm	100-125 Years	high
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	high
Paulownia tomentosa	100-200 cm	40-60 Years	high
Phyllostachys species			
and varieties	300-500 cm	70-90 Years	none
Platanus acerifolia	60-80 cm	150-250 Years	low
Platanus a. 'Tremonia'	60-80 cm		low
Populus alba varieties	80-120 cm	150-300 Years	high
Populus balsamifera	100-150 cm	60-75 Years	very high
Populus berolinensis	60-100 cm	60-80 Years	very high
Populus canescens	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





11 Fast growing plants

Genus/species/variety Yearly shoots Life expectancy Brittleness

1. Deciduous plants

Populus tremula	60-80 cm	30-50 Years	very high
Prunus avium	50-60 cm	60-80 Years	moderate
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	high
Rhus typhina	80-150 cm	30-50 Years	very high
Robinia pseudoacacia varieties	60-150 cm	75-100 Years	high
Salix species and varieties	50/100/150 cm	20-100 Years	very high
Sambucus canadensis	80-120 cm	15-20 Years	high
Sophora japonica 'Regent'	60-80 cm	50-100 Years	high
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	high
Tilia europaea 'Pallida'	40-70 cm	200-300 Years	moderate
Tilia flavescens 'Glenleven'	45-80 cm		high
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

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

Genus/species/variety Yearly shoots Life expectancy Brittleness

3. Conifers

Larix decidua	40-70 cm	400-600 Years	none
Larix kaempferi	50-100 cm	200-300 Years	low
Metasequoia			
Metasequoia glyptostroboides	80-120 cm	50-400 Years	moderate
Pinus banksiana	60-90 cm	40-60 Years	high
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	high

12 Conspicuously flowering trees and shrubs

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.

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

Genus/species/variety Flower colour Fragrance Flowering time

1. Large trees

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

Acer freemanii 'Armstrong'	red	F	III-IV
Acer platanoides varieties	yellow	F	IV
Acer rubrum varieties	red	F	III/IV





Conspicuously flowering trees and shrubs 12

Genus/species/variety	Flower colour	Fragrance	Flowering time
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
Cladrastis kentukea	white	F	V-VI
Corylus columna	yellow		IIIIV
Davidia involucrata vilmoriniana	white		V/VI
Euodia hupehensis	white	(F)	VII/VIII
Gleditsia triacanthos varieties	white	f	VI/VII
Gymnocladus dioicus	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/VI
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 euchlora	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
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

Genus/species/variety	Flower colour	Fragrance	Flowering time
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
Koelreuteria 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 soulangeana varieties	pink	F	IV
Malus floribunda	pinkwhite	F	V
Malus varieties	white, pink	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
Parrotia persica	orange		III/IV
Prunus avium 'Plena'	white, double		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		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 regelii	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





12 Conspicuously flowering trees and shrubs

Genus/species/variety **Flower colour** **Fragrance** **Flowering time**

3. Small trees

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

4. Large shrubs

Acer ginnala	greenish white		V
Aesculus parviflora	white		VII/VIII
Amelanchier laevis	white	f	IV/V
Amelanchier lamarckii	white		IV
Amelanchier 'Ballerina'	white		IV
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 canadensis	pink		IV-V
Cercis siliquastrum	pink, carmine		IV
Chionanthus virginicus	white		VI
Clerodendron t. fargesii	white	F	VII/VIII
Cornus alternifolia	white	(F)	V/VI
Cornus controversa	white		V/VI
Cornus florida varieties	white		V
Cornus florida rubra	pink		V/VI
Cornus kousa varieties	white, pink		VI
Cornus mas	yellow		III
Cornus nuttallii varieties	white		V/VI, VIII
Cornus officinalis	yellow		II-III
Cornus sanguinea	white	(F)	V/VI
Corylus avellana	catkins		III
Corylus 'Redblättrige Zellernuß'	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		V/VI
Crataegus lavalleyi 'Carrierei'	white	(F)	VI
Crataegus monogyna	white	(F)	V/VI
Crataegus coccinea	white	(F)	V
Deutzia magnifica	white		V/VI
Deutzia scabra varieties	pink-white		V/VI
Elaeagnus angustifolia	silver-yellow		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)

Genus/species/variety **Flower colour** **Fragrance** **Flowering time**

Elaeagnus commutata	silvery-yellow		V
Forsythia intermedia varieties	yellow		III/IV
Halesia carolina	white		IV/V
Hamamelis intermedia varieties	yellow, orange, red	F	XII/II/III/IV
Hamamelis mollis varieties	yellow, orange	F	XII/II/III
Hamamelis virginiana	yellow	f	XI/XII
Heptacodium miconioides	white	F	VIII-X
Laburnum anagyroides	yellow		V
Laburnum watereri 'Vossii'	yellow	f	V
Lonicera maackii	white-light-yellow		D V/VI
Magnolia liliiflora varieties	crimsonpink		IV
Magnolia loebneri varieties	white	F	IV/V
Magnolia sieboldii	white	F	VI/VI
Magnolia soulangeana	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		V/VI
Parrotia persica	orange		III/IV
Philadelphus inodorus grandiflorus	white		V/VI
Philadelphus 'Virginal'	white	F	V/VI
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
Prunus padus 'Watereri'	white	(F)-F	IVV
Prunus sargentii	pink	f	IV
Prunus 'Accolade'	pink		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	(III)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	III/IV
Salix caprea varieties	catkins	f	(II)III
Salix cinerea	catkins	f	III/IV
Salix daphnoides 'Praecox'	catkins	f	(XII)II/III
Salix sachalinensis 'Sekka'	catkins	f	IV





Conspicuously flowering trees and shrubs 12

Genus/species/variety	Flower colour	Fragrance	Flowering time	Genus/species/variety	Flower colour	Fragrance	Flowering time
<i>Salix smithiana</i>	catkins	f	III/IV	<i>Deutzia kalmii</i> flora	light-pink		V/VI
<i>Salix viminalis</i>	catkins	f	III/IV	<i>Deutzia lemoinei</i>	white		V
<i>Sambucus canadensis</i> varieties	white	(F)	VI/VII	<i>Elaeagnus multiflora</i>	light-yellow	F	V
<i>Sambucus nigra</i>	white	(F)	VI/VII	<i>Enkianthus campanulatus</i>	red-green		III/IV
<i>Sorbus koehneana</i>	white	(F)	V/VI	<i>Enkianthus perulatus</i>	white		V
<i>Sorbus vilmorinii</i>	white	(F)	V/VI	<i>Forsythia 'Lynwood'</i>	yellow		IV/V
<i>Staphylea colchica</i>	white	F	V	<i>Forsythia suspensa fortunei</i>	yellow		IV/V
<i>Stewartia pseudocamellia</i>	white		VII/VIII	<i>Fothergilla major</i>	white	F	IV/V
<i>Styrax japonicus</i>	white	F	VI-VII	<i>Hamamelis intermedia</i> varieties	yellow, orange, red	F	XII/II/III/IV
<i>Styrax obassia</i>	white	F	VI-VII	<i>Hibiscus syriacus</i> varieties	blue, purple, red, carmine, white		VI/IX
<i>Syringa chinensis</i> varieties	purple-pink	F	IV/V	<i>Holodiscus discolor ariifolius</i>	white		VI
<i>Syringa hyacinthiflora</i> varieties	pink, crimson	F	IV/V	<i>Hydrangea macrophylla</i> varieties	blue, red, white		VII/VIII
<i>Syringa josikaea</i>	violet	(F)	V/VI	<i>Hydrangea paniculata</i> varieties	white, pink		VII/IX
<i>Syringa prestoniae</i>	crimson-red	(F)	V	<i>Hydrangea sargentiana</i>	white, light-purple		VII/VIII
<i>Syringa reflexa</i>	pink	(F)	VI/VII	<i>Kalmia latifolia</i>	carmine-pink		V/VI
<i>Syringa swegiflexa</i>	carmine pink	(F)	VI/VII	<i>Kerria japonica 'Pleniflora'</i>	yellow		IV/V
<i>Syringa vulgaris</i>	purple		V	<i>Kolkwitzia amabilis</i>	pink		VI
<i>Syringa vulgaris</i> hybrids	blue, purple, white, red, pink violet, double	F	V	<i>Lespedeza thunbergii</i>	crimson-pink		IX/X
<i>Tamarix parviflora</i>	pink		V/VI	<i>Lonicera korolkowii zabelii</i>	pink	F	VI
<i>Viburnum lantana</i>	white	(F)	V	<i>Lonicera ledebourii</i>	yellow		VI/VII
<i>Viburnum opulus</i>	white		V/VI	<i>Lonicera purpusii 'Winter Beauty'</i>	white	F	(XII) II-III
<i>Viburnum opulus 'Roseum'</i>	white		V/VI	<i>Lonicera tatarica</i> varieties	pink, white		V/VI
<i>Viburnum rhytidophyllum</i>	white	(F)	V	<i>Lonicera xylosteum</i>	white, yellow	F	V
5. Normal shrubs				<i>Magnolia liliiflora</i> varieties	pink, white		IV/VI
<i>Amelanchier ovalis</i>	white	(F)	V	<i>Magnolia stellata</i> varieties	white, pink	F	IV
<i>Aronia melanocarpa 'Viking'</i>	white		IV/V	<i>Mahonia bealei</i>	yellow	F	II/III
<i>Berberis julianae</i>	yellow	(F)	V	<i>Malus toringo sargentii-grafted</i>	white	F	IV
<i>Berberis ottawensis</i> varieties	yellow	(F)	V	<i>Osmanthus heterophyllus</i>	white	F	IX/X
<i>Berberis stenophylla</i>	yellow	(F)	V	<i>Philadelphus coronarius</i>	white	F	V/VI
<i>Berberis thunbergii</i> varieties	yellow	(F)	V	<i>Philadelphus Hybrid</i> varieties	white	F	VI/VII
<i>Berberis vulgaris</i>	yellow	(F)	V	<i>Photinia fraseri 'Red Robin'</i>	white	(F)	V/VI
<i>Buddleja alternifolia</i>	purple	F-(F)	VI	<i>Physocarpus opulifolius</i>	pink-white		V/VII
<i>Buddleja davidii</i> varieties	purple-blue, red, violett, white	F-(F)	VII/IX	<i>Pieris japonica</i> varieties	white, pink		III)IV/V
<i>Calycanthus floridus</i>	red-brown	F	V/VI	<i>Prunus kurilensis 'Brillant'</i>	white		III/IV
<i>Chaenomeles</i> hybrids	white, pink, orange, red		IV/V	<i>Prunus laurocerasus</i> varieties	white	(F)	V/VI(IX)
<i>Chaenomeles speciosa</i>	red-orange		III/IV	<i>Prunus serrulata 'Shimidsu'</i>	pink-white		V
<i>Clethra alnifolia</i>	white	F	VII/IX	<i>Prunus spinosa</i>	white	f	IV
<i>Colutea arborescens</i>	yellow		V/IX	<i>Prunus triloba</i>	pink, double		
<i>Corylopsis spicata</i>	light-yellow	F	IV	<i>Pyracantha</i> hybrids varieties	white	(F)	V/VI
<i>Cotinus coggygria 'Royal Purple'</i>	pink		VI	<i>Rhododendron</i> species/varieties all		F (some)	III/VI
<i>Cotoneaster acutifolius</i>	white-pink	(F)	IV/V	<i>Ribes aureum</i>	yellow	F	IV/V
<i>Cotoneaster multiflorus</i>	white	(F)	V	<i>Ribes sanguineum</i> varieties	carmine-red	(F)	IV
<i>Cotoneaster sternianus</i>	white	(F)	V/VI	<i>Rosa</i> species and varieties all		F (some)	V/XI
<i>Cytisus scoparius</i> varieties	yellow	(F)	V/VI	<i>Rubus odoratus</i>	red	f	VI/VIII
<i>Cytisus</i> hybrids varieties	yellow, pink, red	(F)	V/VI	<i>Salix aurita</i>	catkins	f	IV
<i>Deutzia hybrida 'Mont Rose'</i>	pink		V/VI	<i>Sorbaria sorbifolia</i>	white		VI/VII
				<i>Spiraea arguta</i>	white	(F)	IV/V
				<i>Spiraea cinerea 'Grefsheim'</i>	white	(F)	IV/V





12 Conspicuously flowering trees and shrubs

Genus/species/variety	Flower colour	Fragrance	Flowering time
<i>Spiraea nipponica</i> varieties	white		V/VII
<i>Spiraea vanhouttei</i>	white	(F)	V
<i>Tamarix ramosissima</i>	pink		VII/IX
<i>Viburnum bodnantense</i> 'Dawn'	pink	F	IX/IV
<i>Viburnum burkwoodii</i>	pink-white	F	IV/V

5. Normal shrubs

<i>Viburnum carlcephalum</i>	white	F	V
<i>Viburnum farreri</i>	pink-white	F	(XI)III/IV
<i>Viburnum plicatum</i> varieties	white		V/VI
<i>Viburnum</i> 'Pragense'	white	f	V
<i>Weigela</i> hybrids varieties	pink, red		V/VIII
<i>Weigela florida</i> varieties	pink, red		V/VI

6. Small shrubs

<i>Acanthopanax sieboldianus</i>	greenish white		VI/VII
<i>Aronia melanocarpa</i>	white	(F)	V
<i>Berberis</i> - evergreen species	yellow	(F)	V/VI
<i>Caryopteris</i> species and varieties	blue	f	VIII/IX
<i>Ceanothus delilianus</i>			
'Gloire de Versailles'	blue		VII/XI
<i>Ceanothus pallidus</i> 'Marie Simon'	pink		VII/X
<i>Chaenomeles japonica</i>	orange-red		III/IV
<i>Chaenomeles</i> hybrids varieties	white, red		(III)IV/V
<i>Corylopsis pauciflora</i>	yellow	F	(II)III/IV
<i>Cotoneaster sternianus</i>	white	(F)	V
<i>Cytisus nigricans</i> varieties	yellow	f	VII/VIII
<i>Cytisus scoparius</i> varieties	yellow, red, brown		V/VI
<i>Daphne burkwoodii</i> 'Somerset'	pink-white	F	V
<i>Daphne mezereum</i> varieties	carmine, white	F	(II)III/IV
<i>Deutzia gracilis</i>	white		V/VI
<i>Deutzia rosea</i>	pink-white		V
<i>Elaeagnus ebbingei</i>	white	F	IX/XI
<i>Exocorda macrantha</i> 'The Bride'	white	f	V/VI
<i>Forsythia ovata</i> 'Tetragold'	light-yellow		III
<i>Fothergilla gardenii</i>	white	F	IV/V
<i>Fothergilla major</i>	white	F	IV/V
<i>Genista tinctoria</i>	yellow		VII/VIII
<i>Hydrangea arborescens</i> varieties	greenish white, white		VI/VIII
<i>Hydrangea macrophylla</i>	blue, red, white		VII/VIII
<i>Hydrangea quercifolia</i>	white		VI/VIII
<i>Hydrangea serrata</i>	crimson, purple, blue, pink		VII/VIII
<i>Hypericum</i> 'Hidcote'	yellow		VI/IX
<i>Hypericum kalmianum</i> varieties	yellow		VII/VIII
<i>Hypericum patulum henryi</i>	yellow		VII/IX
<i>Kalmia angustifolia</i> 'Rubra'	purple-pink		VI(VII)
<i>Kalmia latifolia</i> varieties	pink, red		V/VI
<i>Kerria japonica</i>	yellow		IV/V
<i>Ledum palustre</i>	white	F	V/VI
<i>Lespedeza thunbergii</i>	crimson-pink		IX/X

Genus/species/variety	Flower colour	Fragrance	Flowering time
<i>Leucothoë walteri</i>	white	f	V/VI
<i>Lonicera japonica repens</i>	white-yellow	F	VI/VII
<i>Lonicera caerulea</i>	white	f	IV/V
<i>Lonicera</i> 'Winter Beauty'	white	f	I-III
<i>Mahonia aquifolium</i> varieties	yellow		IV(V)
<i>Paeonia suffruticosa</i> varieties	white, pink	f	V/VI
<i>Perovskia abrotanoides</i>	purple-blue	F	VIII/IX
<i>Philadelphus</i> hybrids varieties	white	F	VI/VII
<i>Pieris floribunda</i>	white	f	IV/V
<i>Pieris japonica</i> varieties	white, pink		(III)IV/V
<i>Potentilla fruticosa</i> varieties	yellow, white, pink, red		(V)VI/X
<i>Prunus cistena</i>	pink		IV/V
<i>Prunus laurocerasus</i> varieties	white		V/VI(IX)
<i>Prunus tenella</i> varieties	pink	f	IV/V
<i>Rhododendron</i> species/varieties all		F (some)	III/VI
<i>Rhodotypos scandens</i>	white		V/VI
<i>Ribes sanguineum</i>	carmine, red	(F)	IV/V
<i>Rosa</i> species and varieties all		F (some)	V/XI
<i>Salix caprea</i> 'Pendula'	catkins	f	III/IV
<i>Salix hastata</i> 'Wehrhahnii'	catkins	f	III/IV
<i>Salix helvetica</i>	catkins	f	IV/V
<i>Salix lanata</i>	catkins	f	III/IV
<i>Skimmia japonica</i> varieties	white	F	V
<i>Spiraea betulifolia</i> varieties	white		VI
<i>Spiraea bumalda</i> varieties	carmine		VI/IX
<i>Spiraea japonica</i> varieties	pink, carmine		VI/VII
<i>Spiraea nipponica</i> varieties	white		V/VI
<i>Spiraea prunifolia</i>	white		V
<i>Spiraea thunbergii</i>	white	f	(III)IV
<i>Spiraea trilobata</i>	white		V/VI
<i>Stephanandra tanakae</i>	white		VI/VII
<i>Syringa meyeri</i> 'Palibin'	crimson	f	V/VI
<i>Syringa microphylla</i> 'Superba'	pink	(F)	V/VI(IX)
<i>Syringa patula</i> 'Miss Kim'	pink	F	V/VI
<i>Ulex europaeus</i>	yellow	f	IV/V
<i>Viburnum carlesii</i> varieties	pink-white	F	(IV)V
<i>Viburnum plicatum</i> varieties	white		VI/VII, X
<i>Viburnum tinus</i>	white, pink	f	IX/IV
<i>Vinca major</i>	blue		IV

7. Dwarf shrubs

<i>Berberis thunbergii</i> varieties	yellow	(F)	V
<i>Calluna vulgaris</i> varieties	red, pink, white	f	VIII/IX
<i>Cornus canadensis</i>	white		V/VII
<i>Cytisus beanii</i>	yellow		V
<i>Cytisus decumbens</i>	yellow		V
<i>Cytisus kewensis</i>	creamwhite		V
<i>Cytisus purpureus</i>	pink, white		V/VI
<i>Daboecia</i> species and varieties	white, pink		VI/X
<i>Daphne cneorum</i>	carmine-pink	F	V/VI





Genus/species/variety	Flower colour	Fragrance	Flowering time
Deutzia gracilis	white		V
Erica carnea varieties	pink, red, white	f	XI-III/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/varieties all		F (some)	III/VI
Rosa species and varieties all		F (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

Ceanothus delilianus			
'Gloire de Versailles'	blue	(F)	VII/X
Ceanothus pallidus 'Marie Simon'	pink		VII/X
Clematis texensis	pink		VI/X
Cornus canadensis	white		V/VII
Genista sagittalis	yellow		V/II
Hypericum calycinum	yellow		VII/IX
Hypericum moserianum	yellow		VII/X
Lavandula angustifolia varieties	blue, purple	F	VI/VII
Lespedeza thunbergii	crimson-pink		IX/X
Pachysandra terminalis varieties	white		IV/V
Perovskia abrotanoides	purple-blue	F	VIII/X
Vinca minor	blue		IV/V(VII)

9. Climbers

see table no. 10

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

13 Flowering period calendar

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.

Flowering time	Genus/species/variety	Flower colour
1. Large trees		
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		
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 involucrata 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 dioicus	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





13 Flowering period calendar

Flowering time	Genus/species/variety	Flower colour
2. Medium sized trees		
VII/VIII	Euodia hupehensis	white
VII/VIII	Sophora japonica varieties	white
VII-IX	Tilia henryana	yellow

Flowering time	Genus/species/variety	Flower colour
3. Small trees		
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 soulangeana	pink
IV	Prunus avium 'Plena'	white, double
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 regelii	white
IV(V)	Magnolia loebneri varieties	white, pink
IV/V	Acer monspessulanum	yellow, green
IV/V	Halesia carolina	white
IV/V	Magnolia kobus	white
IV/V	Malus sylvestris	white
IV/V	Prunus gondouinii 'Schnee'	white
IV/V	Prunus padus varieties	pink
IV/V	Prunus schmittii	pink-white
IV/V	Pyrus communis varieties	white
IV/V	Pyrus nivalis	white
IV/V	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

Flowering time	Genus/species/variety	Flower colour
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
V/VI	Crataegus laevigata 'Paul's Scarlet'	pink, double
V/VI	Davidia involucrata vilmoriniana	white
V/VI	Lonicera maackii	white
V/VI	Sorbus americana	white
V/VI	Sorbus decora	white
V/VI	Sorbus torminalis	white
V/VI, 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(VII)	Fraxinus ornus varieties	white
VII	Catalpa bignonioides varieties	white
VII/IX	Clerodendron trichotomum fargesii	white
VII/VIII	Euodia hupehensis	white
VII/VIII	Stewartia pseudocamellia	white
VIII	Koelreuteria paniculata	yellow
VIII/IX	Aralia elata varieties	white

Flowering time	Genus/species/variety	Flower colour
4. Large shrubs		
(I)II/III	Hamamelis japonica	yellow
(I/II)III	Salix acutifolia 'Pendulifolia'	catkins
(II)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





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Flowering time	Genus/species/variety	Flower colour
III/IV	Salix smithiana	catkins
III/IV	Salix viminalis	catkins
III/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 'Ballerina'	white
IV/V	Halesia carolina	white
IV/V	Magnolia loebneri varieties	white
IV/V	Magnolia soulangeana	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	green-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 Sämling	white
V	Prunus serrulata 'Kiku-shidare-zakura'	darkpink
V	Rosa 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 violett, double
V	Viburnum lantana	white
V	Viburnum rhytidophyllum	white
V/VI	Cornus alternifolia	white
V/VI	Cornus controversa	white
V/VI	Cornus florida rubra	pink
V/VI	Cornus sanguinea	white

Flowering time	Genus/species/variety	Flower colour
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	silvery-yellow
V/VI	Lonicera maackii	white-light yellow
V/VI	Mespilus germanica	white
V/VI	Philadelphus 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	violett
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	green-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
VIII/IX	Aralia elata varieties	white
VIII/IX	Buddleja davidii varieties	white, pink
VIII-X	Heptacodium miconioides	white
X/IV	Prunus subhirtella 'Autumnalis'	white
X/IV	Prunus subhirtella 'Autumnalis Rosea'	carmine-pink
XI/XII	Hamamelis virginiana	yellow
XII/II/III	Hamamelis mollis varieties	yellow, orange
XII/II/III/IV	Hamamelis intermedia varieties	yellow, orange, red

5. Normal shrubs

(XI)III/IV	Viburnum farreri	pink-white
II/III	Mahonia bealei	yellow
III/IV	Chaenomeles speciosa	red-orange
III/IV	Enkianthus campanulatus	red-green





13 Flowering period calendar

Flowering time	Genus/species/variety	Flower colour
5. Normal shrubs		
III/IV	Prunus kurilensis 'Brillant'	white
III/VI	Rhododendron species and varieties	all
(III)IV/V	Pieris japonica varieties	white, pink
IV	Corylopsis spicata	lightyellow
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
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 xylostereum	white, light-yellow
V	Prunus serrulata 'Shimidsu'	pink-white
V	Spiraea vanhouttei	white
V	Viburnum carlcephalum	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 hybrids 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 hybrids varieties	white

Flowering time	Genus/species/variety	Flower colour
V/VI	Viburnum plicatum varieties	white
V/VI	Weigela florida varieties	pink, red
V/VI(IX)	Prunus laurocerasus varieties	white
V/VII	Physocarpus opulifolius	pink-white
V/VII	Spiraea nipponica varieties	white
V/VIII	Weigela hybrids varieties	pink, red
V/XI	Rosa species and varieties	all
VI	Buddleja alternifolia	purple
VI	Cotinus coggygia 'Royal Purple'	pink
VI	Holodiscus discolor ariifolius	white
VI	Kolkwitzia amabilis	pink
VI	Lonicera korolkowii zabelii	pink
VI/IX	Hibiscus syriacus varieties	blue, purple, red, white, carmine
VI/VII	Lonicera ledebourii	yellow
VI/VII	Philadelphus hybrids varieties	white
VI/VII	Sorbaria sorbifolia	white
VI/VIII	Rubus odoratus	red
VII/IX	Buddleja davidii varieties	purple-blue, red, violett, white
VII/IX	Clethra alnifolia	white
VII/IX	Hydrangea paniculata varieties	white, pink
VII/IX	Tamarix ramosissima	pink
VII/VIII	Hydrangea hybrids varieties	blue, red, white
VII/VIII	Hydrangea sargentiana	white, light-purple
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		
(II)III/IV	Corylopsis pauciflora	yellow
(II)III/IV	Daphne mezereum varieties	carmine, white
III/IV	Chaenomeles japonica	orangered
(III)IV/V	Chaenomeles hybrids (C. superba) varieties	white, red
III	Forsythia ovata 'Tetragold'	light yellow
(III)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
(II)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





Flowering time	Genus/species/variety	Flower colour
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	Leucothoë walteri	white
V/VI	Paeonia suffruticosa varieties	white, pink
(V)VI/X	Potentilla fruticosa varieties	yellow, white, pink, red
V/VI(IX)	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(IX)	Syringa microphylla 'Superba'	pink
V/VI	Syringa patula 'Miss Kim'	pink
VI	Spiraea betulifolia varieties	white
VI/VII	Acanthopanax sieboldianus	green-white
VI/VIII	Hydrangea arborescens varieties	green-white, white
VI/VIII	Hydrangea quercifolia	white
VI/IX	Hypericum 'Hidcote'	yellow
VI(VII)	Kalmia angustifolia 'Rubra'	crimson-pink
VI/VII	Lonicera japonica repens	white-yellow
VI/VII	Philadelphus hybrids varieties	white
VI/IX	Spiraea bumalda varieties	carmine
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 hybrids varieties	blue, red, white
VII/VIII	Hydrangea serrata	crimson, purple, blue,
VII/VIII	Hypericum kalmianum varieties	yellow
VII/IX	Hypericum patulum henryi	yellow
VIII/IX	Caryopteris species and varieties	blue
VIII/IX	Perovskia abrotanoides	purple-blue

Flowering time	Genus/species/variety	Flower colour
IX/XI	Elaeagnus ebbingei	white
IX/X	Lespedeza thunbergii	crimson-pink
IX/IV	Viburnum tinus	white, pink

7. Dwarf shrubs

III/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	creme white
V/VI	Cytisus crimsoneus	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. Half Shrubs

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 abrotanoides	purple-blue





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 play 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
1. Deciduous tree		
<i>Acer platanoides</i>	F	
<i>Acer rubrum</i>	F	
<i>Ailanthus altissima</i>	(F)	(AF)
<i>Amelanchier</i> species	(F)	
<i>Betula pendula</i>		a
<i>Castanea sativa</i>	(F)	
<i>Cercidiphyllum japonicum</i>		AF
<i>Cornus alternifolia</i>	(F)	
<i>Crataegus</i> species and varieties	(F)	
<i>Elaeagnus angustifolia</i>	F	
<i>Fraxinus ornus</i>	F	
<i>Heptacodium miconioides</i>	F	
<i>Juglans regia</i>	F	(AF)
<i>Laburnum</i> species and varieties	F	
<i>Lonicera maackii</i>	F	
<i>Magnolia</i> species and varieties	F	
<i>Malus</i> species and varieties	F	
<i>Populus balsamifera</i>		AF
<i>Populus simonii</i>		a
<i>Prunus avium</i>	F	
<i>Prunus lusitanica</i> 'Angustifolia'	f	
<i>Prunus padus</i>	(F)	a
<i>Pyrus</i> species and varieties	(F)	
<i>Robinia</i> species and varieties	F	
<i>Salix</i> species and varieties	F	a
<i>Sorbus</i> species and varieties	(F)	
<i>Styrax japonicus</i>	F	
<i>Styrax obassia</i>	F	
<i>Tilia henryana</i>	F	
<i>Tilia</i> species and varieties	F	

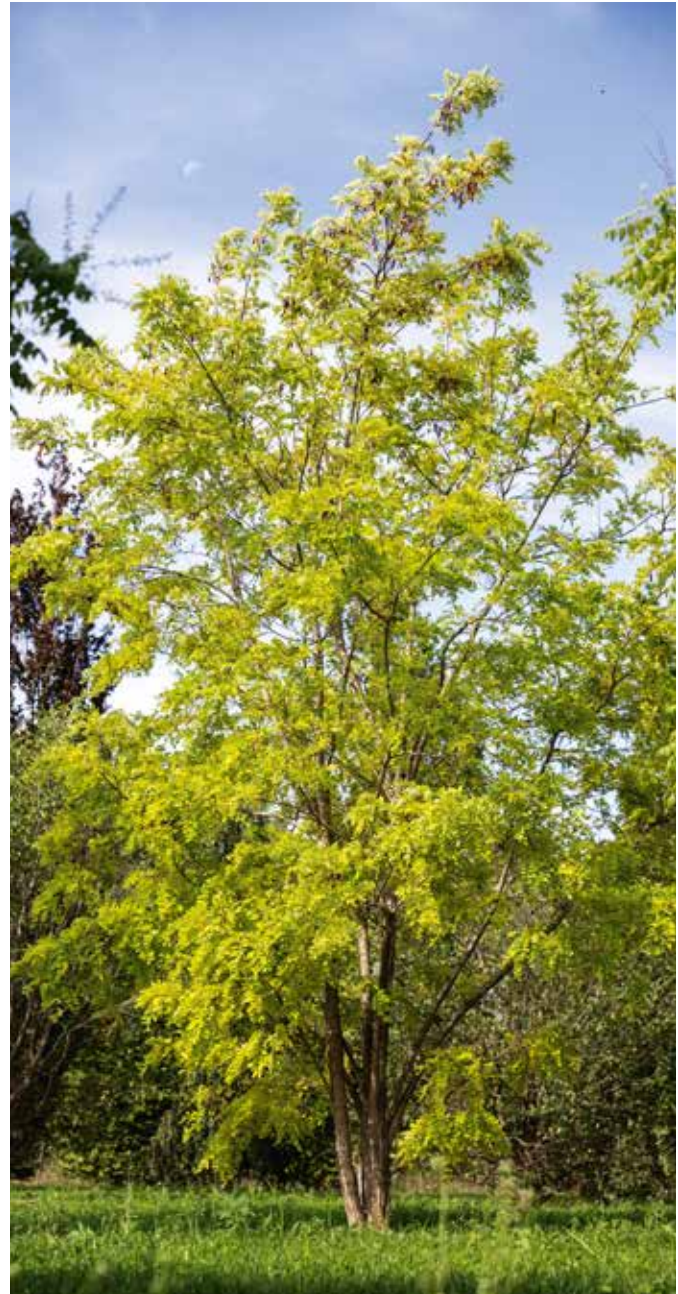
Genus/species/variety	Fragrant	Aroma
2. Shrubs		
<i>Amelanchier</i> species	(F)	
<i>Berberis</i> species and varieties	(F)	
<i>Buddleja</i> species and varieties	(F)	
<i>Buxus sempervirens</i> varieties	(F)	(AF)
<i>Calluna vulgaris</i> species	f	
<i>Calycanthus floridus</i>	F	a
<i>Ceanothus delilianus</i> 'Gloire de Versailles'	(F)	
<i>Cercis siliquastrum</i>	f	
<i>Chaenomeles</i> species and varieties	F	
<i>Chionanthus virginicus</i>	f	
<i>Clethra alnifolia</i>	F	
<i>Cornus alternifolia</i>	(F)	
<i>Cornus mas</i>	f	
<i>Cornus sanguinea</i>	(F)	
<i>Corylopsis</i> species	F	
<i>Cotoneaster</i> species and varieties	(F)	
<i>Crataegus</i> species and varieties	(F)	
<i>Cytisus praecox</i>	(F)	
<i>Cytisus scoparius</i> varieties	(F)	
<i>Daphne</i> species and varieties	F	
<i>Elaeagnus</i> species and varieties	F	
<i>Erica</i> species and varieties	f	
<i>Fothergilla major</i>	F	
<i>Gaultheria procumbens</i>	T	AF
<i>Hamamelis</i> species and varieties	F	
<i>Hedera</i> species and varieties	(F)	
<i>Laburnum</i> species and varieties	f	
<i>Leucothoë walteri</i>	f	
<i>Ligustrum</i> species and varieties	(F)	
<i>Lonicera japonica repens</i>	F	
<i>Lonicera maackii</i>	F	
<i>Lonicera xylosteum</i>	F	
<i>Magnolia</i> species and varieties	F	
<i>Mahonia aquifolium</i>	(F)	
<i>Mahonia bealei</i>	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	
<i>Prunus laurocerasus</i> varieties	(F)	a
<i>Prunus spinosa</i>	f	
<i>Prunus tenella</i>	f	
<i>Pyracantha</i> hybrids varieties	(F)	
<i>Rhododendron</i> species and varieties	F	AF
<i>Rhododendron Azalea</i> varieties	F	
<i>Ribes alpinum</i>	f	a
<i>Ribes aureum</i>	F	
<i>Ribes sanguineum</i>	(F)	(AF)
<i>Rosa</i> species and varieties	F	





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





15 Four-season plants

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 23; “Evergreen plants”.

Genus/species/variety	Prespring	Spring	Summer	Autumn	Winter
Acer ginnala	---	white flowers	red fruit wings	bright red autumn colours	persistent fruit wings, brown
Acer griseum	cinnamon-red bark	shoots reddish, flowers yellowish	---	orange-red in autumn	cinnamon-red bark
Acer japonicum 'Aconitifolium'	red flowers	filigree leaf shape	leaf shape	orange-red in autumn	---
Acer palmatum varieties	---	shoots colourful	ornamental leaf shapes	bright orange to red autumn colours	---
Acer pensylvanicum	white-striped bark, red buds	reddish shoots	---	yellow autumn colours	bark
Acer rubrum	red flowers, slight fragrance of honey	reddish shoots	red fruit wings	orange-red in autumn	bark
Acer rufrinerve	white-striped bark, red buds	bronze-green shoots	white-striped bark	orange autumn colours, bark	bark
Aesculus parviflora	---	reddish shoots	white flowers	yellow autumn colours	---
Alnus incana 'Aurea'	orange red catkins	yellow shoots	greenish-yellow leaves	yellow autumn colours	---
Alnus spaethii	reddish-yellow catkins	violet-red shoots	---	violet-red autumn colours	---
Amelanchier laevis	white flowers	reddish shoots	fruits blue-black	orange-red in autumn	---
Amelanchier lamarckii	white flowers	shoots grey	fruits blue-black	orange autumn colours	---
Aronia species and varieties	---	shoots red, flowers white	---	fruits reddish to black, red autumn colours	some with autumn colours
Berberis ottawensis varieties	---	shoots red, flowers yellow	leaves black-red	red autumn colours	fruits light red
Berberis thunbergii 'Atropurpurea' - species	---	shoots red	leaves red-brown	red autumn colours	fruits light red colours
Betula in species and varieties	bark white, catkins yellow	shoots light green, fragrant	---	yellow autumn colours	white bark
Cercidiphyllum japonicum	reddish flowers	brown-red shoots	leaf shape	yellow-orange autumn colours	fragrant falling leaves
Chaenomeles hybrids	partially flowers appear	shoots reddish, flowers white, pink and red	---	fruits bright yellow	persistent fruit





Four-season plants 15

Genus/species/variety	Prespring	Spring	Summer	Autumn	Winter
Clematis wild fruits varieties	silvery white	partially flowers appear	flowers	---	silvery syncarpy
Cornus alba varieties	red bark	reddish shoots	variegated leaves	reddish autumn colours	coloured bark
Cornus kousa varieties	---	flowers white to pink	fruits red	red autumn colours	---
Cornus mas	flowers yellow, slightly fragrant	---	fruits red	yellow-orange autumn colours	---
Cornus nuttallii	---	shoots light green, flowers white	some still flowering	yellow to orange autumn colours, fruits red	some still have fruit
Cotinus coggygria 'Royal Purple'	---	shoots black-red	cottony inflorescences, pink	bright red autumn colours	---
Cotoneaster horizontalis	shoots early, fresh green	flowers white with pink	---	scarlet autumn colours	red fruits, filigree branching
Cotoneaster multiflorus	---	white flowers	fruits red	yellow autumn colours	---
Cotoneaster praecox	shoots early, fresh green	pink-white flowers	fruits red	bright red autumn colours	---
Crataegus lavalleyi 'Carrierei'	---	white flowers	shiny green leaves	orange autumn colours	persistent fruit, orange-red
Crataegus coccinea	shoots early	white flowers	fruits reddened early	orange autumn colours	---
Crataegus prunifolia	---	white flowers	shiny green leaves	orange autumn colours	spectacular thorns
Elaeagnus pungens 'Maculata'	evergreen	shoots grey	leaves with yellow spots	flowers white, strong vanilla fragrance	occasional fruits, reddish
Euonymus phellomanus	bark with corky strips	white flowers	---	plentiful fruit, red, orange autumn colours	bark with corky strips
Fothergilla species	---	white flowers strong honey fragrance	two-colour leaves, grey underneath	red autumn colours	---
Halesia carolina	picturesque habit	white bells	four-winged stone fruit	yellow autumn colour	---
Hamamelis species and varieties	flowers yellow or red, pleasant fragrance	some still flowering	---	yellow or red autumn colours	flowering begins, yellow or red
Koelreuteria paniculata	---	reddish shoots	flowers yellow	orange-yellow autumn colours	fruits swollen like blisters
Magnolia species and varieties	flowers pink or white, strong fragrance	shoots reddish, some still flowering	---	yellowish-brown autumn colours	silvery buds
Malus hybrids	---	flowers white, pink or carmine, fragrance; reddish shoots	some have bronze leaves	fruits red or yellow	some still have fruit
Parrotia persica	reddish flowers	reddish shoots	---	orange-red autumn colours	multi coloured bark
Photinia villosa	---	white flowers	---	red autumn colours, red fruits	some still have fruit





15 Four-season plants

Genus/species/variety	Prespring	Spring	Summer	Autumn	Winter
Photinia fraseri 'Red Robin'	evergreen	shoots bright red, flowers white	some still flowering, evergreen	evergreen	evergreen
Pieris japonica 'Forest Flame' u. 'Red Mill'	evergreen	shoots bright red to red-brown, flowers white	evergreen	evergreen	evergreen
Prunus avium	flowers white, slightly fragrant	shoots green- golden to bronze	fruits red or black	orange-yellow autumn colours	shiny red-brown bark
Prunus kurilensis 'Brillant'	white flowers	reddish green shoots	fruits shiny black	bright red autumn colours	---
Prunus hillieri 'Spire'	pink-white flowers	bronze-red shoots	---	orange-red in autumn	---
Prunus maackii varieties	shiny orange bark	white flowers	early fruits, black	reddish yellow autumn colours	bright bark
Prunus sargentii	flowers pink, bark shiny brown	brown-red shoots	---	red autumn colours	shiny brown bark
Prunus schmittii	shiny red-brown bark	flowers light pink	---	yellowish autumn colours	shiny red-brown bark
Prunus serrula	shiny mahogany- red bark	white flowers	---	yellow autumn colours	red bark
Prunus serrulata varieties	flowers white or pink, bark shiny brown	shoots reddish or green-golden	---	orange-yellow autumn colours	bark
Rhododendron Azalea	flowers brightly co- loured, sweet fragrance	reddish shoots	---	orange autumn colours	---
Rosa species and varieties	---	flowers white, pink, red	some still flowering	yellow to orange autumn colours	persistent rose hips, red or orange
Salix acutifolia 'Pendulifolia'	yellow catkins, fragrant glaucous blue dark	bark	two-tone leaves, elegant leaf positions	yellow autumn colours	blue glaucous bark
Salix daphnoides varieties	yellow catkins, fragrant glaucous blue-white bark	bark	two-tone leaves	yellow autumn colours	bark, some catkins
Salix sachalinensis 'Sekka'	catkins silvery to yellow, twigs like strips	fresh green shoots	---	yellow to green autumn colours	twigs like strips flattened
Sorbus vilmorinii	---	white flowers	filigree foliage	red-brown, autumn colours, pink fruits	---
Spiraea betulifolia varieties	---	early shoots, reddish, white flowers	flowers	some orange autumn colours	---
Stephanandra tanakae	orange-brown twigs	shoots early	white flowers	orange-yellow autumn colours	orange-brown twigs
Viburnum bodnantense 'Dawn'	pink flowers, strong vanille fragrance	shoots early, reddish	---	brick-red in autumn	flowering begins, flowers pink to white, fragrant
Viburnum farreri	flowers pink-white	green-golden shoots strong fragrance	---	crimson-red autumn colours	flowering begins, flowers pink-white
Viburnum opulus	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 18 - Poisonous plants.

Genus/species/variety	Fruit colour / Fruit shape	Edibility
1. Deciduous plants		
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 columna	brown clusters of fruit	tasteless
Crataegus lavalleyi '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	red, orange, yellow	edible, sour
Mespilus germanica	brown	edible, doughy
Morus species	red till 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	bitter-sweet
Prunus serotina	black	bitter-sweet
Pterocarya fraxinifolia	green panicles	inedible
Rhus species and varieties	reddish spadix panicles	inedible
Sorbus species and varieties	many colours	bitter, tangy, sour

Genus/species/variety	Fruit colour / Fruit shape	Edibility
2. Shrubs		
Acanthopanax sieboldianus	black	poisonous
Acer palmatum	red	
Acer tataricum	red	
Amelanchier species/varieties	blue-black	edible, sweet
Arctostaphylos uva-ursi	red	mealy-tasteless
Aronia species and varieties	red und 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/varieties	brown	inedible
Celtis australis	violet-brown	edible, sweet
Chaenomeles species/var.	yellow	edible, aromatic
Chionanthus virginicus	black	inedible
Heptacodium miconioides	crimson-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/varieties	red, black	mealy-tasteless
Crataegus species/varieties	red	mealy
Decaisnea fargesii	blue	sticky-sweet
Elaeagnus species and varieties	silvery brown-red	edible, sweet
Empetrum nigrum	black	edible, bitter
Euonymus species/varieties	orange, red	very poisonous
Gaultheria procumbens	red	edible, aromatic
Gaultheria shallon	black	mealy
Hedera species and varieties	black	very poisonous
Hippophae rhamnoides	orange	edible, sweet-sour
Hydrangea arborescens var.	brown with red umbels	
Ilex species and varieties	red	very poisonous
Ligustrum species and varieties	black	very poisonous
Lonicera species and varieties	red, black	inedible, poisonous
Lycium barbarum	orange-red	very 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	bitter-sweet
Ptelea trifoliata	yellow-green	extremely bitter
Pyracantha hybrids	red, orange, yellow	mealy
Rhamnus species and varieties	black	poisonous
Rhodotypos scandens	black	inedible
Rosa species and varieties	red, orange, black	edible, sweet





16 Plants with decorative fruit

Genus/species/variety	Fruit colour / Fruit shape	Edibility
2. Shrubs		
Rubus species	black	edible, sweet
Sambucus nigra	black	edible, tangy
Sambucus racemosa	red	raw inedible
Skimmia japonica varieties	red	inedible
Stranvaesia davidiana	red	mealy
Symphoricarpos a. laevigatus	white	inedible
Symphoricarpos chenaultii	pink	inedible
Symphoricarpos doorenbosii	carmine, red	inedible
Symphoricarpos orbiculatus	rosared	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 und black	poisonous
Viburnum opulus	red	inedible
Viburnum rhytidophyllum	red und black	inedible
Viburnum tinus	steel blue	inedible
3. Climbers		
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	blue-black	scratchy, inedible
Rosa - Climbing Roses	red	sour-sweet
4. Conifers		
Abies koreana	cones violet	
Abies procera 'Glauca'	large cones	
Cedrus atlantica 'Glauca'	cones	
Ginkgo biloba	yellow	strong smell
Juniperus species and varieties	blue-black	poisonous
Juniperus communis varieties	blue	tangy-aromatic
Picea abies 'Acrocona'	mounstrous cones	
Picea omorika	cones	
Picea orientalis	decorative cones	
Picea pungens varieties	brown cones	
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
1. Deciduous plants	
Amelanchier species and varieties	raw, processed
Aronia species and varieties	raw, processed
Berberis vulgaris	processed, rich in vitamins
Castanea sativa	processed
Celtis australis	processed
Chaenomeles species and varieties	processed
Cornus mas	raw, processed, rich in vitamins
Corylus species and varieties	raw, processed
Crataegus lavalley 'Carrierei'	raw, processed
Crataegus coccinea	processed
Cydonia oblonga	processed, aroma-, rich in vitamins
Elaeagnus species and varieties	raw, processed
Empetrum nigrum	processed
Gaultheria procumbens	processed, strange-aromatic
Hippophae rhamnoides	raw, processed
Juglans cinerea	raw, processed
Juglans regia	raw, processed
Lonicera caerulea	processed
Mahonia aquifolium	processed
Malus hybrids	raw, processed, somewhat tangy
Mespilus germanica	processed
Morus species and varieties	raw, processed, rich in vitamins
Prunus avium	raw, processed
Prunus cerasifera varieties	raw, processed
Prunus spinosa	processed, sehr herb
Quercus alba	roasted/ ground, like chestnuts
Ribes aureum	processed, very tangy
Rosa species and varieties	raw, processed, rich in vitamins
Rubus calycinoides	raw, processed
Rubus fruticosus	raw, processed
Rubus idaeus	raw, processed
Sambucus nigra	processed, only fully ripe, rich in vitamins
Sambucus racemosa	processed, very tangy
Sorbus aucuparia varieties	processed, very tangy, rich in vitamins
Sorbus arnoldiana varieties	processed, very tangy
Sorbus decora	processed, rich in vitamins
Sorbus domestica	processed





Genus/species/variety	Edibility / characteristics
Sorbus torminalis	processed
Vaccinium corymbosum	raw, processed, rich in vitamins
Vaccinium macrocarpon	processed, rich in vitamins
Vaccinium vitis-idaea varieties	processed, rich in vitamins

2. Climbers

Actinidia species and varieties	raw, processed, rich in vitamins
Akebia quinata	raw
Rosa - Climbing Roes	raw, processed

3. Conifers

Ginkgo biloba	processed, kernels roasted
Juniperus communis	processed/fermented
Pinus cembra	raw, processed, pine nuts
Taxus baccata	raw, only seed case, kernels poisonous

18 Poisonous plants

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

Explanation of symbols:

- +++ = extremely poisonous
- ++ = very poisonous
- + = poisonous
- (+) = slightly poisonous

Genus/species/variety	Poisonous plant part	Degree of poison	Taste
1. Deciduous plants			
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 - species with blue fruits	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	(+)	
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 coggygria	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	beechnuts	(+)	like nuts
Genista species and varieties	whole plant	+	bitter
Gleditsia triacanthos and varieties	only leaves	+	fruits edible
Gymnocladus dioica	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





18 Poisonous plants

Genus/species/variety	Poisonous plant part	Degree of poison	Taste
1. Deciduous plants			
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
Rhus species and varieties	milky sap	+	corrosive
Robinia species and varieties	whole plant	++	bark and roots pleasantly sweetish
Sambucus species and varieties	whole plant, except ripe berries!	(+)	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

Genus/species/variety	Poisonous plant part	Degree of poison	Taste
2. Conifers			
Chamaecyparis species and varieties	whole plant	+	aromatic-bitter
Cupressocyparis in species and varieties	whole plant	+	bitter
Juniperus horizontalis	whole plant	+++	aromatic-bitter
Juniperus media in varieties	whole plant	+++	berries spicy, peppery hot
Juniperus sabina varieties	whole plant	+++!	berries bitter-spicy
Juniperus virginiana 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

Red foliage (black-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
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1. Deciduous plants

<i>Acer cappadocicum</i> 'Rubrum'	red
<i>Acer griseum</i>	brown-red shoots
<i>Acer palmatum</i> 'Atropurpureum'	crimson-red
<i>Acer palmatum</i> 'Fireglow'	red
<i>Acer platanoides</i> 'Crimson Sentry'	shiny black-red
<i>Acer platanoides</i> 'Deborah'	red shoots
<i>Acer platanoides</i> 'Faassen's Black'	shiny black-red
<i>Acer platanoides</i> 'Royal Red'	crimson-red
<i>Acer platanoides</i> 'Schwedleri'	red shoots
<i>Acer pseudoplatanus</i> 'Atropurpureum'	shoots/underside red-brown
<i>Acer neglectum</i> 'Annae'	red shoots
<i>Fagus sylvatica</i> 'Atropunicea'	metallic copper-red
<i>Fagus sylvatica</i> 'Dawyck Purple'	crimson-brown
<i>Fagus sylvatica</i> 'Purple Fountain'	dark red to brown
<i>Fagus sylvatica</i> 'Purpurea Pendula'	black-red
<i>Fagus sylvatica</i> 'Riversii'	red
<i>Fagus sylvatica</i> 'Swat Magret'	black-red
<i>Malus</i> 'Coccinella'	red
<i>Malus</i> 'Hopa'	red shoots
<i>Malus</i> 'Liset'	red shoots, later bronze
<i>Malus</i> 'Nicoline'	red shoots
<i>Malus</i> 'Profusion'	red shoots
<i>Malus</i> 'Rudolph'	red shoots
<i>Prunus cerasifera</i> 'Nigra'	black-red
<i>Prunus serrulata</i> varieties	shoots brown to dark red, later green
<i>Robinia</i> 'Casque Rouge'	shoots brown, later green

2. Deciduous shrubs

<i>Acer palmatum</i> 'Atropurpureum'	red-brown
<i>Acer palmatum</i> 'Dissectum Garnet'	shoots dark-red
<i>Aronia melanocarpa</i>	shoots crimson-red
<i>Berberis buxifolia</i> 'Nana'	shoots crimson-red
<i>Berberis ottawensis</i> 'Superba'	metallic black-red

Genus/species/variety	Leaf colour
<i>Berberis thunbergii</i> 'Atropurpurea'	red shoots
<i>Berberis thunbergii</i> 'Atropurpurea Nana'	red shoots
<i>Berberis thunbergii</i> 'Bagatelle'	intense crimson-red
<i>Berberis thunbergii</i> 'Red Chief'	brown-red
<i>Calluna vulgaris</i> 'Boskoop'	copper-orange in winter, later orange-yellow
<i>Calluna vulgaris</i> 'Carmen'	brown in winter, later dark green
<i>Calluna vulgaris</i> 'County Wicklow'	bronze in winter, then grey-green
<i>Calluna vulgaris</i> 'J. H. Hamilton'	reddish in winter, then green
<i>Calluna vulgaris</i> 'Liebestraum'	bronze in winter, then grey
<i>Calluna vulgaris</i> 'Marlies'	bronze in winter, then grey-green
<i>Calluna vulgaris</i> 'Sonnyboy'	orange in winter, then yellowish green
<i>Calluna vulgaris</i> 'Spring Torch'	orange-red starting in spring
<i>Clematis montana</i> 'Rubens'	red shoots
<i>Cornus alba</i> 'Kesselringii'	brown shoots, later bronze
<i>Corylus avellana</i> 'Rotblättrige Zellernuss'	red-brown
<i>Corylus maxima</i> 'Purpurea'	shiny black-red
<i>Cotinus coggygia</i> 'Royal Purple'	metallic black-red
<i>Erica cinerea</i> 'Katinka'	bronze-red in winter
<i>Erica cinerea</i> 'Pink Ice'	bronze-red in winter
<i>Euonymus fortunei</i> 'Coloratus'	crimson-red on underside of leaf in winter
<i>Euonymus fortunei</i> 'Dart's Blanket'	crimson-red on underside of leaf in winter
<i>Malus</i> 'Eleyi'	reddish shoots, later dark green
<i>Malus</i> 'Makamik'	red shoots, later bronze
<i>Malus</i> 'Royalty'	dark red
<i>Paeonia suffruticosa</i>	shoots dark red
<i>Pieris japonica</i> 'Forest Flame'	shoots bright red later bronze-green
<i>Pieris japonica</i> 'Red Mill'	shoots shiny bronze-red
<i>Photinia fraseri</i> 'Red Robin'	shoots light red, later bronze-green
<i>Prunus cerasifera</i> 'Nigra'	black-red
<i>Prunus</i> 'Trailblazer'	shoots green, later bronze
<i>Prunus cistena</i>	shoots dark red, later brown
<i>Rosa glauca</i>	red shoots, later bronze to blue
<i>Sambucus nigra</i> 'Black Lace'	deep purple
<i>Spiraea bumalda</i> 'Froebelli'	shoots bronze, later green
<i>Spiraea bumalda</i> 'Goldflame'	shoots bronze-red, later yellow-green
<i>Spiraea japonica</i> 'Golden Princess'	red shoots, then bronze-red
<i>Weigela florida</i> 'Purpurea'	shoots dark red, later brown-red

3. Conifers

<i>Microbiota decussata</i>	brick-red in winter, green starting in spring
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19 Plants with leaf colours other than green

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 leaves 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 colour
1. Deciduous plants	
Acer cappadocicum 'Aureum'	yellow
Acer negundo 'Aureo-variegatum'	spotted
Acer negundo 'Odessanum'	shoots yellow, then green-yellow
Alnus incana 'Aurea'	yellow-green, later light green
Catalpa bignonioides 'Aurea'	shoots bright-yellow, later greenish greenish yellow
Fagus sylvatica 'Dawyck Gold'	shoots golden yellow, then yellow-green
Fraxinus excelsior 'Jaspidea'	shoots yellow, then yellow-green
Gleditsia triacanthos 'Sunburst'	shoots bright yellow, then yellow-green
Robinia pseudoacacia 'Frisia'	shoots golden yellow, then yellow-green
Ulmus carpinifolia 'Wredei'	shoots golden yellow, then yellow-green
2. Shrubs	
Aucuba japonica 'Variegata'	spotted
Calluna vulgaris 'Gold Haze'	bright yellow in winter, then greenish yellow
Cornus alba 'Spaethii'	yellow margins
Corylus avellana 'Aurea'	shoots bright yellow, then yellow-green
Elaeagnus pungens 'Maculata'	yellow spots
Euonymus fortunei 'Emerald'n Gold'	yellow spots
Euonymus fortunei 'Sunspot'	yellow leaf centre
Hebe ochracea	yellow-green to golden yellow
Hedera colchica 'Dentata Variegata'	yellow to cream margins
Hedera helix 'Goldheart'	green margin, yellow centre
Ilex altaclerensis 'Golden King'	yellow margins
Ilex crenata 'Golden Gem'	shoots bright yellow, later green-yellow
Ligustrum ovalifolium 'Aureum'	yellow veins
Lonicera japonica 'Aureoreticulata'	shoots red, then golden yellow
Sambucus canadensis 'Aurea'	first golden yellow, then yellow-green

Genus/species/variety	Leaf colour
Spiraea bumalda 'Goldflame'	citrus-yellow
Spiraea japonica 'Goldmound'	cream-yellow to white
Weigela florida 'Nana Variegata'	cream-yellow to white margins

3. Conifers

Cedrus atlantica 'Aurea'	yellow tips, otherwise yellow-green
Chamaecyparis lawsoniana 'Alumigold'	golden yellow
Chamaecyparis lawsoniana 'Ellwood's Gold'	deep golden yellow
Chamaecyparis laws. 'Golden Wonder'	green-yellow
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
Taxus baccata 'Aureovariegata'	yellow to light green
Taxus baccata 'Dovostonii 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 'Aurea'	yellow-green, white stripes

White foliage

(white spots, margins or stripes)

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.

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
2. Shrubs	
Actinidia kolomikta	first pink, then white leaf halves





Plants with leaf colours other than green 19

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

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	
<i>Acer saccharinum</i> varieties	underside
<i>Acer rubrum</i>	underside
<i>Alnus incana</i>	shoots/underside
<i>Elaeagnus angustifolia</i>	both sides
<i>Hippophae rhamnoides</i>	both sides
<i>Malus tschonoskii</i>	shoots/underside
<i>Populus alba</i> 'Nivea'	shoots/underside
<i>Pyrus nivalis</i>	underside
<i>Pyrus regelii</i>	shoots/underside
<i>Pyrus salicifolia</i>	both sides
<i>Pyrus salicifolia</i> 'Pendula'	both sides
<i>Quercus alba</i>	underside white-green
<i>Salix alba</i> varieties	both sides
<i>Salix caprea</i>	underside
<i>Salix smithiana</i>	underside
<i>Salix viminalis</i>	underside
<i>Sorbus aria</i> varieties	shoots/underside
<i>Sorbus intermedia</i> varieties	underside
<i>Sorbus thuringiaca</i> 'Fastigiata'	underside
<i>Tilia tomentosa</i> varieties	shoots/underside
2. Shrubs	
<i>Buddleja alternifolia</i>	both sides
<i>Buddleja davidii</i> varieties	shoots/underside
<i>Calluna vulgaris</i> varieties	both sides
<i>Caryopteris clandonensis</i> varieties	both sides

Gattung / Art / Sorte	Blattfärbung
<i>Cotoneaster dielsianus</i>	underside
<i>Cotoneaster franchetii</i>	shoots/underside
<i>Cotoneaster multiflorus</i>	underside
<i>Cotoneaster salicifolius floccosus</i>	underside
<i>Cotoneaster sternianus</i>	shoots/underside
<i>Cotoneaster watereri</i> varieties	underside
<i>Elaeagnus angustifolia</i>	both sides
<i>Elaeagnus commutata</i>	both sides
<i>Elaeagnus ebbingei</i>	shoots/underside
<i>Elaeagnus multiflora</i>	underside
<i>Erica tetralix</i> varieties	shoots/underside
<i>Hamamelis mollis</i>	underside
<i>Hippophae rhamnoides</i>	both sides
<i>Hydrangea sargentiana</i>	shoots/underside
<i>Lavandula angustifolia</i> varieties	shoots/underside
<i>Lycium barbarum</i>	both sides
<i>Perovskia abrotanoides</i>	both sides
<i>Potentilla fruticosa mandshurica</i>	both sides
<i>Salix acutifolia</i> 'Pendulifolia'	underside
<i>Salix aurita</i>	underside
<i>Salix caprea</i> varieties	underside
<i>Salix cinerea</i>	shoots/underside
<i>Salix daphnoides</i> varieties	underside
<i>Salix elaeagnos</i>	shoots/underside
<i>Salix hastata</i> 'Wehrhahnii'	underside
<i>Salix lanata</i>	both sides
<i>Salix repens argentea</i>	both sides
<i>Salix rosmarinifolia</i>	shoots/underside
<i>Salix smithiana</i>	underside
<i>Salix viminalis</i>	underside
<i>Viburnum burkwoodii</i>	underside
<i>Viburnum carlcephalum</i>	underside
<i>Viburnum carlesii</i>	underside
<i>Viburnum lantana</i>	shoots/underside
<i>Viburnum rhytidophyllum</i>	underside

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	
<i>Berberis</i> - evergreen species and varieties	only leaf underside, blue, greyblue
<i>Rosa glauca</i>	shoots bluish red, then blue-green
<i>Salix acutifolia</i> 'Pendula'	blue underneath





19 Plants with leaf colours other than green

Genus/species/variety	Leaf-/needle colour
1. Deciduous plants	
<i>Salix daphnoides</i>	blue underneath
<i>Salix fragilis</i>	blue underneath
<i>Salix purpurea</i> varieties	blue underneath
2. Conifers	
<i>Abies concolor</i>	bluish grey
<i>Abies koreana</i>	silvery white underneath
<i>Abies procera</i> 'Glauca'	silvery-blue/blue
<i>Abies veitchii</i>	bluish white underneath
<i>Cedrus atlantica</i> varieties	silvery-blue
<i>Cedrus deodara</i> 'Pendula'	blue-green
<i>Chamaecyparis lawsoniana</i> 'Alumii'	blue / bluish green
<i>Chamaecyparis lawsoniana</i> 'Columnaris'	bluish grey
<i>Chamaecyparis laws.</i> 'Columnaris Glauca'	blue to blue-green
<i>Chamaecyparis lawsoniana</i> 'Spek'	blue to blue-green
<i>Chamaecyparis laws.</i> 'Tharandensis Caesia'	blue-green
<i>Chamaecyparis pisifera</i> 'Boulevard'	silvery-blue
<i>Juniperus chinensis</i> 'Blue Alps'	silvery-blue
<i>Juniperus communis</i> 'Hibernica'	grey-blue
<i>Juniperus communis</i> 'Suecica'	grey-blue
<i>Juniperus horizontalis</i> 'Andorra Compact'	grey-green/blue
<i>Juniperus horizontalis</i> 'Wiltonii'	intense blue
<i>Juniperus chinensis</i> 'Blaauw'	bluish grey
<i>Juniperus media</i> 'Hetzii'	bluish grey
<i>Juniperus sabina</i> 'Rockery Gem'	blue-green
<i>Juniperus sabina</i> 'Tamariscifolia'	blue-green
<i>Juniperus scopulorum</i> 'Wichita Blue'	grey, silver
<i>Juniperus squamata</i> 'Blue Carpet'	intense blue
<i>Juniperus squamata</i> 'Blue Star'	intense silvery blue
<i>Juniperus squamata</i> 'Meyeri'	silvery blue
<i>Juniperus virginiana</i> 'Glauca'	grey
<i>Juniperus virginiana</i> 'Grey Owl'	grey
<i>Juniperus scopulorum</i> 'Skyrocket'	grey/ blue-green
<i>Picea abies</i> 'Pumila Glauca'	blue-green / green
<i>Picea glauca</i> 'Echiniformis'	blue-green
<i>Picea pungens</i> 'Edith'	blue-grey
<i>Picea pungens glauca</i>	blue to blue-grey
<i>Picea pungens</i> 'Glauca Globosa'	silvery blue
<i>Picea pungens</i> 'Hoopsii'	intense blue to silvery blue
<i>Picea pungens</i> 'Koster'	bluish green/silvery blue
<i>Picea pungens</i> 'Oldenburg'	silvery blue
<i>Pinus cembra</i>	blue-green
<i>Pinus monticola</i> 'Ammerland'	silvery blue
<i>Pinus monticola</i> 'Skyline'	blue-green
<i>Pinus parviflora</i> 'Glauca'	silvery blue
<i>Pinus parviflora</i> 'Negishi'	grey-blue
<i>Pinus peuce</i>	grey-blue
<i>Pinus pumila</i> 'Glauca'	grey/blue-green

Genus/species/variety	Leaf-/needle colour
<i>Pinus schwerinii</i>	blue-green
<i>Pinus strobus</i>	blue-green
<i>Pinus strobus</i> 'Macopin'	blue-green
<i>Pinus strobus</i> 'Radiata'	blue-green
<i>Pinus sylvestris</i>	grey-green
<i>Pinus sylvestris</i> 'Fastigiata'	blue-green
<i>Pinus sylvestris</i> 'Norske Typ'	bluish grey
<i>Pinus sylvestris</i> 'Watereri'	grey/ blue-green
<i>Pinus wallichiana</i>	blue-green
<i>Pinus wallichiana</i> 'Densa Hill'	blue-green
<i>Pseudotsuga menziesii caesia</i>	grey-green
<i>Sequoiadendron giganteum</i> 'Glaucum'	blue to blue-grey
<i>Tsuga mertensiana</i>	grey/ blue-green
<i>Tsuga mertensiana</i> '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.

Genus/species/variety	Shoots	Colour
1. Deciduous trees		
<i>Aesculus flava</i> varieties	IV	light green
<i>Acer platanoides</i>	IV	green
<i>Acer rubrum</i>	IV	bronze-red
<i>Betula</i> species and varieties	IV	light green
<i>Cercidiphyllum japonicum</i>	B IV	red
<i>Malus toringo sargentii</i> - seedling	IV	green
<i>Populus balsamifera</i>	B IV	yellow-green
<i>Populus berolinensis</i>	B IV	yellow-green
<i>Populus canadensis</i> varieties	IV	bronze-red
<i>Populus nigra</i> varieties	E VI/B V	yellow-green
<i>Populus simonii</i>	E III/B IV	green
<i>Prunus padus</i>	E III/B IV	light green
<i>Pterocarya fraxinifolia</i>	IV	green





Genus/species/variety	Shoots	Colour
Pyrus species and varieties	(E III) B IV	green silver
Salix alba 'Tristis'	B IV	yellow-green
2. Shrubs		
Acanthopanax sieboldianus	B IV	green
Aesculus parviflora	E IV	bronze-red
Amelanchier species and varieties	IV	silver-grey to red
Berberis thunbergii varieties	E III/B IV	green
Buddleja davidii varieties	B IV	silver
Caragana arborescens	B IV	light green
Chaenomeles species and varieties	B IV	bronze-red
Cotoneaster species and varieties	B IV	grey-green
Crataegus laevigata varieties	IV	green
Crataegus monogyna varieties	B IV	green
Crataegus coccinea	B IV	green
Cytisus beanii	IV	green
Cytisus kewensis	IV	grey-green
Decaisnea fargesii	IV	grey-green
Deutzia gracilis	B IV	green
Euonymus europaeus	B IV	green
Euonymus planipes	B IV	green
Heptacodium miconioides	IV	green
Hydrangea arborescens varieties	IV	green
Hydrangea hybrids varieties	E III/B IV	green
Kerria japonica varieties	B IV	green
Ligustrum species and varieties	B IV	green
Lonicera species and varieties	E III/B IV	green
Malus species and varieties	IV	red
Paeonia suffruticosa varieties	E III/B IV	bronze-red
Philadelphus hybrids	IV	grey-green
Pieris japonica varieties	IV	red
Potentilla fruticosa varieties	E III/B IV	silvery-green
Prunus - redleaf varieties	IV	black-red
Prunus species and varieties	IV	green
Rhodotypos scandens	IV	green
Ribes species and varieties	E III/B IV	green
Rosa species and varieties	E III/B IV	red or green
Rosa glauca	IV	blue
Rubus caesius	B IV	green
Salix alba 'Kermesina'	IV	green-gelb
Salix balsamifera mas	B IV	light green
Sambucus nigra	E III/B IV	bronze-red
Sambucus racemosa varieties	IV	bronze-red
Sorbaria sorbifolia	E III/B IV	green to red
Spiraea species and varieties	E III/B 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	E III/B IV	green

Genus/species/variety	Shoots	Colour
3. Climbers		
Clematis species and varieties	IV	green or red
Hydrangea petiolaris	IV	green
Jasminum nudiflorum	IV	green
Lonicera species and varieties	E III/B IV	green or grey
Parthenocissus species and varieties	IV	bronze-red
4. Conifers		
Cedrus deodara varieties	IV	green
Larix decidua	B 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

21 Plants that shoot late

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 evergreen deciduous trees and conifers.

See table next page





21 Plants that shoot late

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

22 Plants with autumn colours

The decomposition of chlorophyll in autumn leaves behind xanthophyll and carenone, 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	
Acer freemanii 'Autumn Blaze'	orange-red
Acer platanoides	yellow, orange
Acer pseudoplatanus varieties	yellow
Acer saccharinum	yellow, green-yellow
Acer saccharum	yellow, orange
Aesculus hippocastanum	yellow
Betula species	yellow
Castanea sativa	yellow, yellow-brown
Fagus sylvatica varieties	yellow-orange, yellow-brown
Fraxinus pennsylvanica 'Cimmzam'	red, orange
Gleditsia triacanthos	yellow-green
Juglans nigra	yellow
Liriodendron tulipifera	yellow, yellow-brown
Pterocarya fraxinifolia	yellow-green
Populus nigra	yellow
Quercus alba	crimson to brown-violet
Quercus robur	yellow-brown
Quercus rubra	orange-red
Tilia cordata	yellow
Tilia platyphyllos	yellow
Tilia europaea	yellow
Ulmus species and varieties	yellow
2. Medium-size trees	
Acer campestre	yellow, yellow-orange
Acer cappadocicum varieties	yellow
Acer freemanii 'Armstrong'	orange-red
Acer freemanii 'Celzam'	red, yellow
Acer japonicum varieties	orange-red
Acer platanoides varieties	yellow
Acer platanoides - redleaf varieties	bronze-red
Acer rubrum varieties	red, orange
Acer saccharinum 'Wieri'	yellow, yellowgreen
Aesculus flava varieties	yellow, orange
Alnus spaethii	violet-red, bronze
Betula species and varieties	yellow
Carpinus betulus varieties	yellow
Cercidiphyllum japonicum	yellow, yellow-orange
Corylus colurna	yellow
Euodia hupehensis	yellow
Fagus sylvatica varieties	yellow-orange, yellowbrown
Fraxinus americana 'Autumn Purple'	red, violet





Genus/species/variety	Main colour
Fraxinus americana 'Skyline'	orange-red
Fraxinus angustifolia 'Raywood'	violet-brown
Fraxinus pennsylvanica 'Patmore'	yellow
Fraxinus pennsylvanica 'Summit'	yellow
Gymnocladus dioicus	yellow
Liquidambar styraciflua	dark red, red, orange
Liquidambar styraciflua 'Moraine'	violet, yellow
Nyssa sylvatica	yellow, orange
Ostrya carpinifolia	yellow
Phellodendron amurense	yellow
Populus tremula	yellow, yellow-orange
Prunus avium	yellow, orange
Pyrus calleryana varieties	orange-red, red
Quercus coccinea	red, orange
Quercus palustris	yellow-orange
Quercus palustris 'Green Pillar'	red
Sorbus aucuparia	yellow-orange, red
Sorbus domestica	orange-red
Tilia species and varieties	yellow
Tilia henryana	yellow
Zelkova serrata varieties	red, orange, yellow

3. Small trees

Acer buergerianum	orange-yellow, red
Acer campestre 'Elsrijk'	yellow
Acer campestre varieties	yellow
Acer ginnala	red, orange
Acer griseum	red
Acer palmatum	red
Acer monspessulanum	yellow, red
Acer japonicum varieties	orange, red
Acer pensylvanicum	yellow
Acer rufinerve	orange, red
Acer rubrum	red, orange
Acer neglectum 'Annae'	yellow, yellow-orange
Acer tataricum	red, yellow
Aesculus carnea 'Briotii'	yellow
Amelanchier laevis	yellow-orange
Amelanchier lamarckii	orange, yellow
Aralia elata varieties	yellow-orange
Catalpa bignonioides varieties	yellow
Cercidiphyllum japonicum	yellow, yellow-orange
Cornus alternifolia	violet-red, yellow
Cornus controversa	violet
Cornus florida	bronze-red
Cornus kousa varieties	orange-red
Crataegus monogyna	red, yellow
Crataegus coccinea	yellow-orange
Crataegus crus galli	orange-red
Fagus sylvatica 'Purpurea Pendula'	orange-brown

Genus/species/variety	Main colour
Fraxinus americana microcarpa	violet, yellow
Fraxinus americana 'Autumn Applause'	red
Koelreuteria paniculata	yellow-orange
Liquidambar styraciflua 'Gum Ball'	red, yellow
Liquidambar styraciflua 'Slender Silhouette'	red, orange
Malus hybrids	yellowish
Malus tschonoskii	red-orange, red
Nothofagus antarctica	yellow, green-yellow
Parrotia persica	red, yellow-orange
Phellodendron amurense	yellow
Prunus hillieri 'Spire'	orange, red
Prunus maackii varieties	orange-yellow
Prunus padus	yellow, orange
Prunus sargentii	orange-red
Prunus serrulata varieties	yellow-orange
Pyrus calleryana varieties	orange-red, red
Pyrus communis varieties	orange-yellow, red-violet
Pyrus nivalis	red
Quercus palustris 'Green Dwarf'	red, yellow
Rhus species and varieties	orange, red
Sorbus species and varieties	orange-red
Stewartia pseudocamellia	yellow-orange, red
Tilia mongolica	yellow

4. Large shrubs

Acer ginnala	red, orange
Acer japonicum 'Aconitifolium'	orange-red
Acer palmatum	red
Acer rufinerve	orange-red
Aesculus parviflora	yellow
Amelanchier species and varieties	yellow-orange
Aralia elata species and varieties	yellow-orange
Berberis ottawensis varieties	red
Cornus alternifolia	violet-red bis yellow
Cornus controversa	violet-bronze-red, yellow
Cornus florida varieties	red-brown
Cornus kousa varieties	orange-red
Cornus nuttallii	yellow-orange, red
Cornus officinalis	red
Cornus sanguinea	red
Corylus avellana	yellow, yellow-orange
Cotinus coggygria varieties	orange-red
Cotoneaster bullatus	orange-yellow, red
Crataegus laevigata varieties	bronze-red
Crataegus monogyna	red, yellow
Crataegus coccinea	yellow-orange
Crataegus crus galli	orange-red
Euonymus europaeus	bronze-red, red
Euonymus planipes	red, pink





22 Plants with autumn colours

Genus/species/variety	Main colour
4. Large shrubs	
Hamamelis species and varieties	yellow to orange-red
Mespilus germanica	yellow-brown
Nothofagus antarctica	green-yellow, yellow
Parrotia persica varieties	red, orange-yellow
Photinia villosa	red
Prunus species and varieties	orange-red
Ptelea trifoliata	yellow-green, yellow
Rhus typhina	orange, red
Salix triandra	yellow
Sorbus species and varieties	orange-red
Styrax japonicus	red
Viburnum lantana	green-yellow, red
Viburnum opulus	orange-red, yellow
5. Shrubs	
Berberis ottawensis 'Superba'	orange
Berberis thunbergii	yellow-orange, red
Berberis thunbergii 'Atropurpurea' varieties	orange-red
Berberis vulgaris	yellow-orange, red
Corylopsis spicata	yellow
Cotinus coggygria 'Royal Purple'	red
Cotoneaster species and varieties	yellow-orange, red
Enkianthus campanulatus	yellow-orange, red
Euonymus alatus	red
Euonymus yedoensis	pink, red
Euonymus phellomanus	orange
Fothergilla major	yellow-orange, red
Hydrangea quercifolia	orange-red
Rhododendron hybrids (Azaleen)	orange-red, red, yellow
Rhus typhina 'Dissecta'	red-orange
Salix sachalinensis 'Sekka'	yellow-green, yellow
Spiraea species and varieties	violet-brown, brown-red
Syringa species and varieties	crimson
Viburnum bodnantense varieties	bronze-red
Viburnum farreri	blood-red
Viburnum plicatum varieties	violet-red, orange
6. Small shrubs	
Aronia species and varieties	red, orange
Corylopsis pauciflora	yellow
Cotoneaster horizontalis	red
Fothergilla gardenii	yellow-orange, orange-red, red
Kerria japonica	yellow
Spiraea species and varieties	violet-red, orange
Stephanandra species and varieties	yellow
Syringa species and varieties	crimson
Vaccinium species and varieties	yellow, orange

Genus/species/variety	Main colour
7. Dwarf shrubs	
Berberis thunbergii 'Atrocrimsonea'	orange-red
Cotoneaster adpressus	red
Cotoneaster praecox	red
Spiraea species and varieties	violet-red, orange
8. Climbers	
Actinidia arguta	yellow
Actinidia chinensis	yellow-brown
Campsis species and varieties	yellow-green, yellow
Celastrus orbiculatus	yellow
Clematis species and varieties	pale yellow
Hydrangea petiolaris	yellow
Parthenocissus quinquefolia varieties	red
Parthenocissus tricuspidata 'Veitchii'	red-orange
Rubus caesius	orange-red
Rubus fruticosus	orange-red
Vitis coignetiae	orange-red
9. Conifers	
Ginkgo biloba	yellow
Larix decidua	yellow
Larix kaempferi varieties	yellow, yellow-orange
Metasequoia glyptostroboides	orange-brown
Pseudolarix amabilis	yellow
Taxodium distichum	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.





Evergreen broad-leaf plants

Genus/species/variety	Nearly evergreen	Evergreen
1. Small trees		
Ilex aquifolium varieties		+
Quercus turneri 'Pseudoturneri'	+	
2. Large shrubs		
Bamboo species and varieties		+
Berberis julianae		+
Buxus sempervirens varieties		+
Cotoneaster salicifolius varieties	+	+
Cotoneaster watereri varieties	+	+
Ilex altaclerensis varieties		+
Ilex aquifolium varieties		+
Ligustrum ovalifolium	+	
Ligustrum vulgare varieties	+	
Magnolia grandiflora 'Blanchard'		+
Prunus laurocerasus varieties		+
Prunus lusitanica 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 heterophyllum		+
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		+
Berberis species and varieties		+
Ceanothus species and varieties	+	
Cotoneaster species and varieties	+	+

Genus/species/variety	Nearly evergreen	Evergreen
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		+
Leucothoë 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 microphyllum 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		+
Rhododendron species and varieties	+	+
Rubus calycinoides	+	+
Vaccinium macrocarpon		+
Vaccinium vitis-idaea		+
Viburnum davidii		+
Vinca species and varieties		+





23 Evergreen broad-leaf plants

Genus/species/variety	Nearly evergreen	Evergreen
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6. Climbers

Akebia quinata	+	
Euonymus fortunei varieties		+
Hedera colchica varieties		+
Hedera helix varieties		+
Hedera helix hibernica		+
Lonicera japonica repens	+	
Lonicera henryi		+
Lonicera japonica varieties	+	+
Rubus fruticosus	+	
Rubus henryi		+

7. Conifers

All, except Ginkgo, Larix, Metasequoia, Pseudolarix und Taxodium



24 Plants that form runners

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.

Genus/species/variety	Distance from centre in m	Type of runners
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1. Trees

<i>Ailanthus altissima</i>	8 - 12 m	unhindered, like thickets
<i>Alnus incana</i>	4 - 7 m	like clumps
<i>Aralia elata</i> varieties	2 - 4 m	single
<i>Cercis siliquastrum</i>	2 - 3 m	like clumps
<i>Gymnocladus dioica</i>	2 - 6 m	like thickets
<i>Hippophae rhamnoides</i>	2 - 8 m	like thickets, rampant
<i>Liquidambar styraciflua</i>	1 - 2 m	single, rare
<i>Malus hybrids</i> varieties	1 - 4 m	like clumps
<i>Malus sylvestris</i>	2 - 4 m	single to nest-like
<i>Populus alba</i> varieties	6 - 15 m	spread afar to thicket-like
<i>Populus berolinensis</i>	4 - 6 m	like clumps
<i>Populus canadensis</i>	6 - 10 m	single
<i>Populus nigra</i> varieties	6 - 8 m	like clumps
<i>Populus tremula</i> var.	10 - 18 m	forest-like, rampant
<i>Prunus avium</i>	12 - 16 m	like nests, numerous
<i>Prunus padus</i>	6 - 12 m	like nests, in hundreds
<i>Pyrus communis</i>	2 - 6 m	like thickets
<i>Pterocarya fraxinifolia</i>	4 - 12 m	like thickets, in thousands
<i>Rhus glabra</i>	1 - 4 m	like thickets
<i>Rhus typhina</i> varieties	1 - 8 m	like thickets
<i>Robinia pseudoacacia</i> var.	1 - 25 m	like thickets, in hundreds
<i>Sorbus aucuparia</i>	2 - 4 m	single
<i>Sorbus torminalis</i>	6 - 8 m	like clumps
<i>Ulmus carpinifolia</i>	4 - 10 m	like clumps
<i>Ulmus laevis</i>	4 - 6 m	like clumps

2. Shrubs

<i>Acanthopanax sieboldianus</i>	0.5 - 1 m	like clumps
<i>Aesculus parviflora</i>	2 - 4 m	like thickets, rampant
<i>Amelanchier ovalis</i>	1 - 2 m	single/like clumps
<i>Aralia elata</i> varieties	2 - 4 m	single
<i>Aronia melanocarpa</i>	0.5 - 1 m	like thickets
<i>Berberis vulgaris</i>	1 - 1.5 m	single
<i>Chaenomeles</i> i. A. u. S.	0.2 - 2 m	like thickets
<i>Cornus canadensis</i>	0.2 - 0.4 m	like nests
<i>Cornus sanguinea</i>	1 - 5 m	like thickets





25 Characteristics of the root system of the trees

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.

See table next page

Genus/species/variety	Distance from centre in m	Type of runners
Cornus stolonifera		
'Flaviramea'	1 - 2 m	like thickets
Corylus avellana	0.5 - 1 m	single
Elaeagnus commutata	1 - 5m	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 var.	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
Pachysandra terminalis var.	0.2 - 0.5 m	like nests
Pachysandra terminalis	0.3 - 0.8 m	like thickets
Phyllostachys species/var.	0.5 - 8 m	like clumps and like thickets
Prunus spinosa	2 - 10 m	like thickets
Prunus tenella 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 var.	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 a. laev.	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 var.	0.1 - 0,3 m	like nests
Viburnum farreri	0.5 - 1.5 m	like clumps

3. Climbers

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





25 Characteristics of the root system of the trees

1. Large trees (Trees 1st order)

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
Acer platanoides varieties	shallow/cordate	possible	possible	tolerant	observed
Acer pseudoplatanus varieties	deep	rare	quite tolerant	tolerant	frequent
Acer saccharinum 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, weit	rare	possible	tolerant	frequent
Gleditsia triacanthos	shallow	rare	possible	tolerant	---
Gymnocladus dioicus	cordate/deep	possible	sensitive	sensitive	---
Juglans cinerea	deep	possible	---	tolerant	---
Juglans nigra	extrem deep	strong	possible	sensitive	rare
Liriodendron tulipifera	shallow, fleischig	possible	sensitive	sensitive	---
Platanus acerifolia	cordate	strong	quite tolerant	tolerant	frequent
Platanus acerifolia varieties	deep	strong	possible	sensitive	frequent





2. Medium-size Trees (Trees 2nd order)

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
Acer campestre varieties	cordate	rare	possible	tolerant	rare
Acer freemanii varieties	cordate	possible	---	---	frequent
Acer negundo varieties	shallow	possible	sensitive	sensitive	frequent
Acer platanoides varieties	shallow/cordate	possible	possible	tolerant	observed
Acer rubrum 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 utilis jacquemontii	shallow	strong	sensitive	sensitive	---
Carpinus betulus varieties	cordate, intense	rare	slight	sensitive	---
Cercidiphyllum japonicum	shallow/cordate	strong	---	---	---
Corylus colurna	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	cordate	possible	slight	sensitive	observed





25 Characteristics of the root system of the trees

2. Medium-size Trees (Trees 2nd order)

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
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	shallow	strong	sensitive	sensitive	observed
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 varieties	cordate	possible	possible	tolerant	never
Tilia americana varieties	cordate	possible	sensitive	sensitive	---
Tilia cordata varieties	cordate, intense	strong	slight	tolerant	never
Tilia euchlora	cordate	strong	slight	sensitive	---
Ulmus hybris	cordate	possible	slight	---	---
Zelkova serrata varieties	cordate	---	---	---	---





3. Small trees (Trees 3rd order)

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
Rhus glabra	shallow	rare	sensitive	sensitive	---
Rhus typhina	shallow, far	strong	sensitive	sensitive	---
Robinia 'Casque Rouge' u.a.	shallow	rare	sensitive	sensitive	---
Salix species and varieties	shallow	strong	quite tolerant	tolerant	preferred
Sorbus species and varieties	cordate/deep	possible	sensitive	sensitive	possible
Styrax obassia	cordate	---	---	---	---
Sophora japonica	shallow	strong	slight	sensitive	---
Sorbus aucuparia varieties	shallow/cordate	strong	possible	sensitive	never
Sorbus domestica	deep	strong	slight	---	---
Sorbus intermedia varieties	cordate	possible	possible	tolerant	never
Tilia americana varieties	cordate	possible	sensitive	sensitive	---
Tilia cordata varieties	cordate, intense	strong	slight	tolerant	never
Tilia euchlora	cordate	strong	slight	sensitive	---
Ulmus hybrids	cordate	possible	slight	---	---
Zelkova serrata varieties	cordate	---	---	---	---





25 Characteristics of the root system of the trees

4. Conifers

Genus/species/variety	Rootsystem type	Lifting of pavement	Tolerates covering	Response to mechanical damage	Penetrating sewage lines
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
Thujopsis dolabrata	shallow	possible	slight	---	---
Tsuga species and varieties	shallow	possible	sensitive	sensitive	never





26 Thorny and prickly plants

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.

Genus/species/variety	Thorns or prickles on		
	Mainstem	Twig	Leaf
1. Deciduous trees			
<i>Aralia elata</i> varieties	+		
<i>Crataegus</i> species and varieties	+	+	
<i>Elaeagnus angustifolia</i>	+	+	
<i>Gleditsia triacanthos</i>	+	+	
<i>Hippophae rhamnoides</i>	+	+	
<i>Ilex aquifolium</i> varieties			+
<i>Malus sylvestris</i>		+	
<i>Pyrus communis</i>	+	+	
<i>Pyrus salicifolia</i>		+	
<i>Pyrus regelii</i>	+	+	
<i>Robinia pseudoacacia</i>	+		
2. Shrubs			
<i>Acanthopanax sieboldianus</i>		+	
<i>Berberis</i> species and varieties		+	+
<i>Chaenomeles</i> species and varieties		+	
<i>Crataegus</i> species and varieties	+	+	
<i>Elaeagnus pungens</i> 'Maculata'		+	
<i>Genista lydia</i>		+	
<i>Hippophae rhamnoides</i>	+	+	
<i>Ilex altaclerensis</i> varieties			+
<i>Ilex aquifolium</i> varieties			+
<i>Ilex meserveae</i> varieties			+
<i>Lycium barbarum</i>		+	
<i>Mahonia</i> species and varieties			+
<i>Mespilus germanica</i>	+	+	
<i>Osmanthus heterophyllus</i>			+
<i>Pernettya mucronata</i>			+
<i>Prunus spinosa</i>	+	+	
<i>Pyracantha</i> species and varieties	+	+	
<i>Rhamnus catharticus</i>		+	

Genus/species/variety	Thorns or prickles on		
	Mainstem	Twig	Leaf
<i>Ribes divaricatum</i>		+	
<i>Rosa</i> species and varieties		+	
<i>Rubus</i> species and varieties		+	
<i>Ulex europaeus</i>	+	+	

3. Climbers

<i>Rosa</i> species and varieties	+		
<i>Rubus</i> species and varieties		+	

4. Conifers

<i>Araucaria araucana</i>		+	+
<i>Cedrus deodara</i> varieties			+
<i>Juniperus chinensis</i> varieties		+	+
<i>Juniperus communis</i> varieties		+	+
<i>Juniperus media</i> varieties			+
<i>Juniperus squamata</i>		+	+
<i>Picea abies</i> varieties			+
<i>Picea pungens</i> varieties			+
<i>Pinus leucodermis</i>			+
<i>Pinus nigra austriaca</i> varieties			+
<i>Pinus sylvestris</i> varieties			+

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.

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.

Genus/species/variety	Bark colour	Note
1. Trees		
<i>Acer buergerianum</i>	orange, brown and grey	peeling off in patches
<i>Acer griseum</i>	cinnamon-red	peeling off in patches
<i>Acer davidii</i>	white-green stripes	especially in winter high ornamental value





27 Plants with conspicuous bark colour

Genus/species/variety	Bark colour	Note
1. Trees		
Acer palmatum 'Sangokaku'	bright coral red bark	especially in winter high ornamental value
Acer pensylvanicum	green with white vertical stripes	vertical stripes
Acer rufrinerve	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
Carpinus japonica	dark green to grey-purple	smooth, little grooved
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 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 red-brown	
Prunus maackii	shiny cinnamon-red	horizontal stripes
Prunus maackii 'Amber Beauty'	shiny golden yellow	horizontal stripes
Prunus serrula	shiny-mahagonired	horizontal stripes
Prunus schmittii	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 varieties	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

Genus/species/variety	Bark colour	Note
2. Shrubs		
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 sanguinea 'Winter Beauty'	bright yellow-orange-red	pruning encourages the colouring
Cornus stolonifera 'Flaviramea'	yellow	as above
Cornus stolonifera 'Kelsey'	fresh green to reddish	as above
Cytisus scoparius hybrids	darkgreen	as above
Euonymus species	green with cork strips	no pruning only thinning out peeling off in patches
Heptacodium miconioides	brown-yellow to brown-red	
Hydrangea quercifolia	yellowbrown	peeling off in patches
Kerria japonica 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

