

Tree factsheet

images at pages 3, 4, 5

***Salix alba* L.**

taxonomy	
author, year	Linnaeus 1753
synonym	
Family	Salicaceae
Eng. Name	White willow
Dutch name	Schietwilg
subspecies	
varieties	
hybrids	<i>Salix x rubens</i> Schrank (<i>S. alba</i> x <i>S. fragilis</i>)
cultivars, frequently used	
'Barlo'	timber tree, landscape tree, street tree, park tree
'Belders'	timber tree, landscape tree, street tree, park tree
'Bredevoort'	timber tree, landscape tree, street tree, park tree
'Chermesina'	street tree, park tree
'Het Goor'	timber tree, landscape tree, street tree, park tree
'Lieveelde'	timber tree, landscape tree, street tree, park tree
'Tinaarlo'	timber tree, landscape tree, street tree, park tree
references	Weeda, E.J. 2003. Nederlandse Oecologische Flora, deel 1 Hiemstra, J.A. 2002. Rassenlijst bomen Pas, J.B. van der. 1989. <i>Salix</i> . in: P. Schmidt. 1989. Nederlandse boomsoorten 2 Plants for a Future Database; www.pfaf.org/index.html
morphology	
crown habit	tree, oval
max. height (m)	30
max. dbh (cm)	>100
actual size Great Britain	year ..., d(...) 238, h 10, Amberley Wild Brook, West Sussex, England year ..., d(...) 235, h 23, Moreton-on-Lugg, Herefordshire, England
actual size Netherlands	year 1830-1840, d(130) 115, h 23 year 1920-1930, d(130) 162, h 30 year 1930-1940, d(130) 204, h 24
leaf length (cm)	4-13
leaf petiole (cm)	0,2-1
leaf colour upper surface	green
leaf colour under surface	grayish- or blueish green
leaves arrangement	alternate
flowering	April
flowering plant	dioecious
flower	monosexual
flower diameter (cm)	
flower male catkins length (cm)	3,7-5,5
flower female catkins length (cm)	3,7-5,5
pollination	insects
fruit; length	capsule (doosvrucht); 0,2-0,3 cm
fruit petiole (cm)	<0,1
seed; length	seed; .. cm
seed-wing length (cm)	pappus: approx 0,5
weight 1000 seeds (g)	..
seeds ripen	June
seed dispersal	wind, water

habitat	
natural distribution	Europe, W+Mid Asia, Atlas
in N.W. Europe since	11.000 B.C.
natural areas The Netherlands	forests, open fields
geological landscape types The Netherlands (Hoek 1997)	dune area; river valleys
forested areas The Netherlands	frequent tree at clay soils.
area Netherlands	Populus+Salix: 16.290 (2002, Probos)
% of forest trees in the Netherlands	Populus+Salix: 6,3 (2002, Probos)
soil type	
pH-KCl	neutral to alkaline
soil fertility	nutrient rich
light	light demanding
① shade tolerance (0=no tolerance to 5=max. tolerance)	2.0
① drought tolerance (0=no tolerance to 5=max. tolerance)	2.0
① waterlogging tolerance (0=no tolerance to 5=max. tolerance)	4.1
plant communities in the Netherlands	Klasse der wilgenvloedbossen en –struwelen: -Artemisio-Salicetum albae – Bijvoet-oibos -Irido-Salicetum albae – Lissen-oibos -Cardamino-amarae-Salicetum albae – Veldkers-oibos
management	
status Europe	frequent, indigenous species in riparian forests
status The Netherlands	scattered, locally frequent, indigenous species in riparian forests
application	nature tree, timber tree, coppice tree, landscape tree
propagation	cuttings
regeneration	planting; natural regeneration from seed
optimal gap size for regeneration	3x tree length
first plantation Netherlands	
resprouting after cutting	good
growth rate (M.A.I. in $m^3ha^{-1}j^{-1}$)	fast (data unknown)
diseases	<i>Erwinia salicis</i> – bacterium in wood - watermerkziekte
insects	<i>Cossus cossus</i> – caterpillar in wood - wilgenhoutrups <i>Cryptorrhynchus lapathii</i> – beetle in coppice-cultures – wilgensnuitkever <i>Rhabdophaga saliciperda</i> – insect in phloem – wilgenbastmug <i>Saperda populnea</i> – insect larvae in branches <i>Plagiodera versicolor</i> – beetle on leaves – Ronde Wilgenhaan <i>Phyllodecta vulgatissima</i> – beetle on leaves - Bronzen Wilgenhaan <i>Yponomeuta orrellus</i> – moth on leaves – Wilgenstippelmot
wood	
wood	Willow, White willow (Dutch: wilgen)
wood structures key characteristics of pores	diffuse porous; uniseriate, heterogeneous rays; large ray vessel pits
vol. mass heartwood (kg/m ³)	340-420 (12% moisture content)
elastic modulus (N/mm ²)	7.100
durability heartwood	fungus 5
heartwood color	light-brown to rose-brown
sapwood color	white
contents	
products	wooden shoes, basketry, packaging wood
non-timber products	
leaves and branches	for fodder
twigs	for basketry and waterworks

① Ülo Niinemets and Fernando Valladares. 2006. Tolerance to shade, drought, and waterlogging of temperate Northern Hemisphere trees and shrubs. Ecological Monographs 76:521–547



White willow, leaves
© Chris Sonnemans



tree top



female flowers



male flowers



winter buds

photography 4x © Leo Goudzwaard, Wageningen University



young *S. alba*, river Rhine, Rhenen



S. alba as an ornamental tree, Steenberg



two mature White willows, Kortenhoef

photography 3x © Leo Goudzwaard, Wageningen University



White willow bordering the Geleenbeek



willow wood, © Chris Sonnemans



bark of a mature tree