



<b>habitat</b>	
natural distribution	N.-America
in N.W. Europe since	1781 - Germany
natural areas The Netherlands	-
geological landscape types The Netherlands (Hoek 1997)	Till plateau, ice-pushed ridges, coversand area
forested areas The Netherlands	sandy soils
area Netherlands	not a forest canopy tree
% of forest trees in the Netherlands	-
soil type	indifferent
pH-KCl	indifferent
soil fertility	indifferent
light	highly shade tolerant
① shade tolerance (0=no tolerance to 5=max. tolerance)	4.3
① drought tolerance (0=no tolerance to 5=max. tolerance)	2.4
① waterlogging tolerance (0=no tolerance to 5=max. tolerance)	3.5
plant communities in the Netherlands	Quercetea robori-petraea (klasse der eiken-beukenbossen op voedselarme grond) -Betulo-Quercetum roboris (Berken-Eikenbos) -Fago-Quercetum (Beuken-Eikenbos)
<b>management</b>	
status USA	species absent; genus locally frequent in landscape
status Europe	infrequent exotic species in forests, landscape, urban environment
status The Netherlands	frequent exotic (naturalized) species in forests, landscape, urban environment
application	ornamental tree, street tree, important seed tree for birds
propagation	seed; named cultivars by grafting
regeneration	planting; natural regeneration from seed; uprootings
optimal gap size for regeneration	< 1x tree length
first plantation Netherlands	17 <sup>th</sup> century
oldest tree U.K.	
old tree Netherlands	
resprouting after cutting	good
growth rate (M.A.I. in m <sup>3</sup> ha <sup>-1</sup> j <sup>-1</sup> )	-
diseases	none
insects	
<b>wood</b>	
wood	
wood structures key characteristics of pores	diffuse porous
vol. mass heartwood (kg/m <sup>3</sup> )	
elastic modulus (N/mm <sup>2</sup> )	
durability heartwood	
heartwood color	light-brown
sapwood color	light-brown
contents	
products	cutlery, turnery
<b>non-timber products</b>	
berries	raw edible or cooked in jam

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



leaves of Service berry



twig in winter



autumn color



two seedlings  
photos 4x © Leo Goudzwaard



ripening berries



bark of a mature shrub



inflorescence in April  
photos 3x © Leo Goudzwaard