

habitat	
natural distribution	Europe, West Asia
in N.W. Europe since	9000 B.C.
natural areas The Netherlands	forests
geological landscape types The Netherlands (Hoek 1997)	loss-covered terraces, ice pushed ridges
forested areas The Netherlands	loamy and sandy soils.
area Netherlands	< 1700 (2002, Probos)
% of forest trees in the Netherlands	< 0,7 (2002, Probos)
soil type	
pH-KCl	indifferent
soil fertility	nutrient medium to rich
light	highly shade tolerant as a sapling, shade tolerant when mature
① shade tolerance (0=no tolerance to 5=max. tolerance)	3.2
① drought tolerance (0=no tolerance to 5=max. tolerance)	3.5
① waterlogging tolerance (0=no tolerance to 5=max. tolerance)	1.3
plant communities in the Netherlands	klasse der Eiken-beukenbossen op voedselarme grond: -Deschampsio-fagetum - Bochtige smele-beukenbos -Fago-Quercetum - Beuken-eikenbos
management	
status Europe	frequent indigenous species in forests
status The Netherlands	frequent exotic (naturalized) species in forests and urban environment
application	timber tree, fruit tree
propagation	seed; named cultivars by grafting, budding
regeneration	planting; natural regeneration from seed
optimal gap size for regeneration	1-2x tree length
first plantation Netherlands	
resprouting after cutting	good
growth rate (M.A.I. in $m^3ha^{-1}j^{-1}$)	
diseases	<i>Cryphonectria parasitica</i> (syn. <i>Endothia parasitica</i>) – Chestnut blight (Kastanjekanker) <i>Phytophthora</i> spp. – ink disease – roots and root collar
insects	free from plague insects
wood	
wood	Chestnut (Kastanje)
wood structures key characteristics of pores	ring porous. radial, flame-like groups of vessels in latewood.
vol. mass heartwood (kg/m ³)	(490-) 540 (-650) (12% moisture content)
elastic modulus (N/mm ²)	8.800
durability heartwood	fungus 2
heartwood color	light brown to dark brown
sapwood color	grey-white
contents	tannins (looizuur)
products	construction wood, furniture, tools, flooring, cladding, poles, cutlery, turnery, firewood
non-timber products	
chestnut fruits	roasted or cooked edible; flour, sugar extracted from the seeds

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



young leaves in spring



male inflorescence in June



female inflorescence in June



burr and nut in Autumn, photo © Arboretum Tervuren

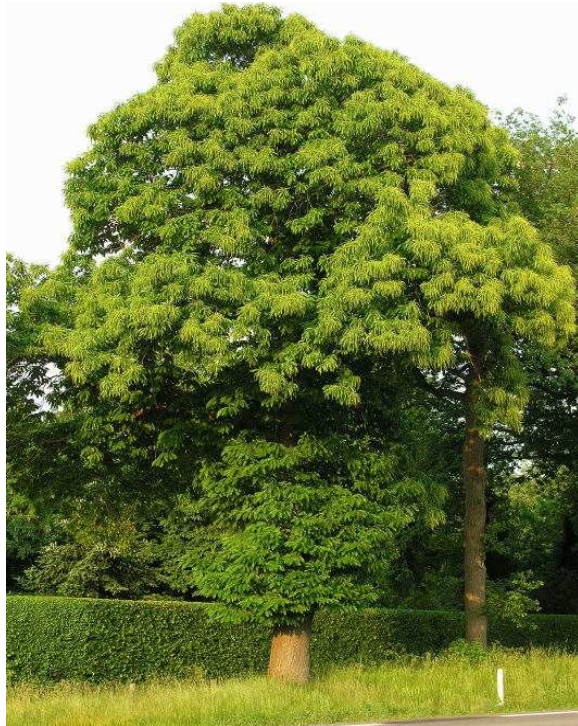


buds in winter

photos 4x ©Leo Goudzwaard



young tree at Belmonte Arboretum, Wageningen



mature tree, flowering, near Garderen, Veluwe



crown of a mature Chestnut, Wageningen



Chestnut stand, Renkum, Veluwe

photos 4x ©Leo Goudzwaard



bark of a young tree



bark of a mature multi-stemmed Chestnut, Doorwerth, Veluwe



very old specimen in Kew Gardens, England
photos 4x ©Leo Goudzwaard



results of Chestnut blight infestation



Sweet chestnut wood
photo ©Chris Sonnemans



Thomé, 1885