

Tree factsheet

images at pages 3, 4, 5

***Tilia platyphyllos* Scop.**

taxonomy	
author, year	Scopoli, 1771
synonym	-
Family	Tiliaceae
Eng. Name	Large-leaved lime, Broad-leaved lime, Bigleaf linden (USA)
Dutch name	Zomerlinde, Grootbladige linde
subspecies	-
varieties	-
hybrids	<i>Tilia x vulgaris</i> Hayne (syn. <i>T. x europaea</i>) (<i>T. cordata</i> x <i>T. platyphyllos</i>)
cultivars, frequently used (7e rassenlijst Bomen)	
'Delft'	avenues, parks
'Naarden'	avenues, parks
'Örebro'	streets, avenues, parks
'Rubra'	avenues, parks
references	Weeda, 2003, Nederlandse Oecologische Flora vol.2.
	Maes, N. 1989. De Linde in Nederland. Stichting Kritisch Bosbeheer.
	Maes, N. 2006. Inheemse bomen en struiken in Nederland en Vlaanderen.
	Hiemstra, J.A. 2002. Rassenlijst Bomen.
	Plants for a Future Database; www.pfaf.org/index.html
morphology	
crown habit	tree, pyramidal to round
max. height (m)	35 (>40)
max. dbh (cm)	>200
actual size Europe	year ..., d(...) 236, h 14, Pitchford Hall, Shropshire, England year ..., d(...) 136, h 41,5, Grove House, Fethard, Co. Tipperary, Ireland
actual size Netherlands	year 1600-1700, d(130) 213, h 22 year 1860-1880, d(130) 107, h 35
leaf length (cm)	6-12
leaf petiole (cm)	2,5-6
leaf colour upper surface	green
leaf colour under surface	green
leaves arrangement	alternate
flowering	June-July
flowering plant	monoecious
flower	hermaphrodite
flower diameter (cm)	approx 1
flower male catkins length (cm)	-
pollination	insects: bees and moths
fruit; length	nut containing 2-4 seeds; 0,6 cm
fruit petiole (cm)	1-3
seed; length	seed; approx 0,5 cm
seed-wing length (cm)	5
weight 1000 seeds (g)	30-40
seeds ripen	October
seed dispersal	wind, water (mice?)

habitat	
natural distribution	Europe
in N.W. Europe since	<i>Tilia</i> spp.: 6500 B.C.
natural areas The Netherlands	forests
geological landscape types The Netherlands (Hoek 1997)	loss-covered terraces, ice pushed ridges, coversand area
forested areas The Netherlands	loamy, clay and sandy soils.
area Netherlands	<1400 (2002, Probos)
% of forest trees in the Netherlands	0,6 (2002, Probos)
soil type	
pH-KCl	slightly acid to neutral to alkaline
soil fertility	nutrient medium to rich
light	highly shade tolerant
① shade tolerance (0=no tolerance to 5=max. tolerance)	4.0
① drought tolerance (0=no tolerance to 5=max. tolerance)	2.5
① waterlogging tolerance (0=no tolerance to 5=max. tolerance)	1.0
plant communities in the Netherlands	Querco-Fagetea: Klasse der Eiken-beukenbossen op voedselarme grond
management	
status Europe	infrequent indigenous species in forests
status The Netherlands	rare indigenous species in forests and urban environment
application	timber tree, street tree
propagation	seed; named cultivars by cuttings, grafting or layering (old)
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 ³ ha ⁻¹ j ⁻¹)	moderate:...
diseases	<i>Nectria cinnabarina</i> – fungus – a weak parasite - Meniezwammetje <i>Verticillium dahliae</i> – Verticillium wilt – fungus on leaves - verwelkingsziekte
insects	<i>Eucallipterus tiliae</i> , aphid on leaves – lindebladluis <i>Caliroa annulipes</i> , wasp on leaves - lindebladwesp <i>Eotetranychus tiliarum</i> , mite on leaves – lindespintmijt <i>Phalera bucephala</i> , Buff tip - caterpillar on leaves - Wapendrager
wood	
wood	European linden, lime (Dutch: Europees linden) (basswood = American linden)
wood structures key characteristics of pores	diffuse porous to semi-ring porous; radially oriented pore groups; triseriate and tetraseriate rays.
vol. mass heartwood (kg/m ³)	(520-) 540 (-560) (12% moisture content)
elastic modulus (N/mm ²)	12.000
durability heartwood	fungus 5
heartwood color	white to yellowish brown
sapwood color	white to yellowish brown
contents	
products	kitchen-tools, toys, cutlery, turnery, musical instruments
non-timber products	
flowers	lime flower tea
leaves	young raw edible
inner bark	fibres

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



Tilia platyphyllos leaves



twig in winter



inflorescence



sapling

photos 4x © Leo Goudzwaard



bark of a mature tree



stem of an ornamental Large-leaved linden, Oosterbeek



mature ornamental tree, Zwolle
photos 3x © Leo Goudzwaard



Large-leaved lime, fruits and a 2 Euro coin
photo © Hans-Cees Speel



fruit



endocarp



seed