

Forest Ecology and Forest Management Group

Tree factsheet

images at page 3

Pinus mugo Turra

<i>Pinus mugo</i> Turra	
taxonomy	
author, year	Turra, 1765
synonym	-
Family	Pinaceae
Eng. Name	Dwarf mountain pine
Dutch name	Bergden
subspecies	P. mugo subsp. mugo
00000000	P. mugo subsp. uncinata (also treated as a separate species P. uncinata)
varieties	-
hybrids	
cultivars, frequently planted:	
Mughus'	a dwarf variety used in gardens and parks, 1 m tall
Magnao	a awaii vanoty acca in garacrio ana pano, i in tai
references	Earle, C.J. Gymnosperm database. www.conifers.org
	Plants for a Future Database; www.pfaf.org/index.html
	Transfer at addo Balabass, www.plansrg/mask.html
morphology	
crown habit	subsp. <i>mugo</i> shrub, spreading
GOWII HADIL	subsp. <i>uncinata</i> (<i>P. uncinata</i>) tree, conical
may height (m)	Europe: 10, subsp. <i>uncinata</i> (<i>P. uncinata</i>)
max. height (m)	The Netherlands: 3, subsp. <i>mugo</i>
max. dbh (cm)	?
actual size Europe	
actual size Netherlands	?
leaf length (cm)	3-8 fascicles of two
leaf petiole (cm)	0
leaf colour upper surface	
leaf colour under surface	green
leaves arrangement	green
flowering	June-July
flowering plant	monoecious, rarely subdioecious
flower diameter (cm)	monosexual 0,2
1 /	wind
pollination	
fruit; length	cone; 2-6 (-7) cm 0,2
fruit petiole (cm)	
seed; length	samara (=winged nut); 0,3-0,4 cm
seed-wing length (cm)	0,7-1,2
weight 1000 seeds (g)	6,6
seeds ripen	Nov. same year – Feb. next year
seed dispersal	wind

habitat	
natural distribution	mountains of South and Central Europe
in N.W. Europe since	?
natural areas The Netherlands	not indigenous
geological landscape types The Netherlands	
(Hoek 1997)	
forested areas The Netherlands	dry and moist sandy soils; former heath fields
area Netherlands	occasionally planted in groups
% of forest trees in the Netherlands	
soil type	sand and peaty soils
pH-KCI	3,5 – 4,5
soil fertility	nutrient poor
light	light demanding
●shade tolerance	1.7
(0=no tolerance to 5=max. tolerance)	
Odrought tolerance	4.2
(0=no tolerance to 5=max. tolerance)	
•waterlogging tolerance	1.0
(0=no tolerance to 5=max. tolerance)	
plant communities in the Netherlands	•
management	
status Europe	frequent indigenous species in high mountain forests, around the timberline
status The Netherlands	infrequent exotic species in forest edges, in municipal parks and gardens
application	soil protection against erosion and avalanches; ornamental
propagation	seed
regeneration	planting; natural regeneration
optimal gap size for regeneration	3x tree length
first plantation Netherlands	?
resprouting after cutting	no
growth rate (M.A.I. in m³ha⁻¹j⁻¹)	slow
diseases	Rhizina undulata (Koffievuurtjeszwam) – fungus on roots
insects	
wood	
wood wood	pine
wood wood structures key characteristics of pores	pine -
density heartwood (kg/m³)	-
elastic modulus (N/mm²)	-
durability heartwood	-
heartwood colour	-
sapwood colour	white to yellow
contents	resin (Dutch: hars)
products	unsignificant
products	unorgrimount
non-timber products	
non unioci producto	

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



Pinus mugo at Loonsche en Drunense Duinen

at the timberline in the Swiss Alps



pollen flowers



young cones



flowering tree in Rhenen