

Poplar Cultivar 'Remus'

Passport

Interspecific hybrid *Populus deltoides* x *Populus nigra*

Parents *Populus deltoides* = 'S.333-68', origin: Michigan, USA

Populus nigra = Origin: Denderwindeke, Belgium

Creation 1965, by controlled crossing at **INBO** (Research Institute for Nature and Forest), Geraardsbergen, Belgium

Plant Variety Protection Certificate EU59402

Gender Female

Cultivar number S333-68 x Dw2/16

Phenotype

- Straightness of the stem: straight to moderately straight
- Bark: slightly rough
- Crown: egg-shaped
- Tree form: elongated, occasionally forming heavier branches
- Forking rarely
- Thickness of the branches: partly heavy



Cultivar 'Remus' 27/07/2016

Phenology

At the INBO nursery in Geraardsbergen (50° 48' N, 3° 57' E) in 2017, the cultivar 'Remus' starts to flush in the second week of April, and the timing of bud set in autumn is in the second half of September. Timing of bud burst and bud set is between the cultivars 'Muur' and 'Vesten'.

Growth characteristics

Nursery test

Table 1. Height and DBH (diameter at breast height) of **one and two-year-old trees** of the cultivar 'Remus' in the INBO nursery at Geraardsbergen (2020) compared to the *P. euramericana* cultivars 'Vesten' and 'Oudenberg'.

CLONE	Height 1 year old	Height 2 years old	Diameter
MUUR	167	423	3.9
OUDENBERG	193	515	3.2
VESTEN	173	501	3.9
REMUS	157	497	3.4

Field test

The Mean Annual Increment (MAI) – circumference has been measured in multiple field trials installed in the north of Belgium on different soil types (Table 2), and ranges between 7.4 cm and 10.5 cm. Remus gives good/very good results on good fertile soils with good water supply. On soils with a lesser water supply, the cultivar grows less well than the cultivars 'Vesten' and 'Oudenberg'.

Planting location	soil series	soil profile/horizon	MAI	year of plantation
Voorde	Abp	Loam without profile, alluvial	10.5	2016
Overboelare	Lfp	Wet Sandy loam, without profile, alluvial	7.15	2004
Vezon	Ahp	Wet loam without profile, without reduction horizont	7.36	2004

Wood technology

Wood properties were obtained from the Laboratory for wood technology, University of Ghent, Belgium

Physical properties	
Wood density (60%RV)	417 kg/m ³
Heartwood proportion (%)	28
Tension wood proportion (%)	51
Mechanical properties	
Modulus of elasticity (N/mm ²)	7797
Modulus of rupture (N/mm ²)	63
The wood is suitable for	
Veneer	Good
Saw wood	Good

Disease resistance

The cultivar 'Remus' has been tested and selected for its good resistance/tolerance to leaf rust *Melampsora larici-populina*, leaf spot disease caused by *Marssonina brunnea*, and bacterial canker caused by *Xanthomonas populi*. Resistance to *Melampsora larici-populina* and *Marssonina brunnea* has been observed during several consecutive years at the INBO nursery in Geraardsbergen. Resistance to *Xanthomonas populi* has been tested by artificial infection on five 2-year-old trees, and is good resistant to bacterial cancer of poplar.

Table 3. Resistance of the cultivar 'Remus' to the most important poplar diseases in Europe

Cultivar	Leaf rust (<i>Melampsora laricipopulina</i>)	Bacterial canker (<i>Xanthomonas populi</i>)	Woolly aphid (<i>Phloemyzus passerinii</i> (Sign.))
Remus	Tolerant	Resistant	Under laboratory conditions: sensitive In field conditions: until now, no colonies on the bark were observed in Belgium



'Remus' 17 years old, Overboelare, Belgium



Remus; in the nursery, start of the second growing season, june 2024