

Breeding of willows with high content of phenolic substances

Phenolic compounds (e.g. salicylates) from willow bark can replace oil based substances in the chemical industry

New willow clones should:

have high contents of phenolic substances

be rust resistant

drought stress resistant

New approaches:

screening of the genetic basis from warm and continental areas in Europe or America

development of molecular markers for salicylate synthesis and rust resistance

distinction of willows species in Europe

Partners in the consortium

Thünen-Institute of Forest
Genetics

Volker Schneck, Ben Bubner

Population genetics of willows
Genome analysis of poplar
Molecular analysis of willow rusts and
resistance tests
field trials

Humboldt Universität zu Berlin
Chair of Urban Ecophysiology

Christian Ulrichs, Matthias
Zander, Inga Mewis

Breeding of Willows by crossing; stock
collections of willows
analysis of phenolic substances esp.
salicylates by LC/MS
drought stress tests

Partners we look for

Partners for screening of natural stands of willows in Eastern Europe (continental) and Southwestern Europe (France, Spain)

Partners who develop the applications of willow based phenolics for the chemical industry

Existing contacts

Larry Smart, Cornell University, USA

Genome analysis of *Salix*, stock collections

Radim Vasut, Olomouc University, Czech Republic

Wild willow populations

Detlef Schmiedl, Fraunhofer Institute for Chemical Technology, Pfinztal, Germany

Bio-based substances for the chemical industry