

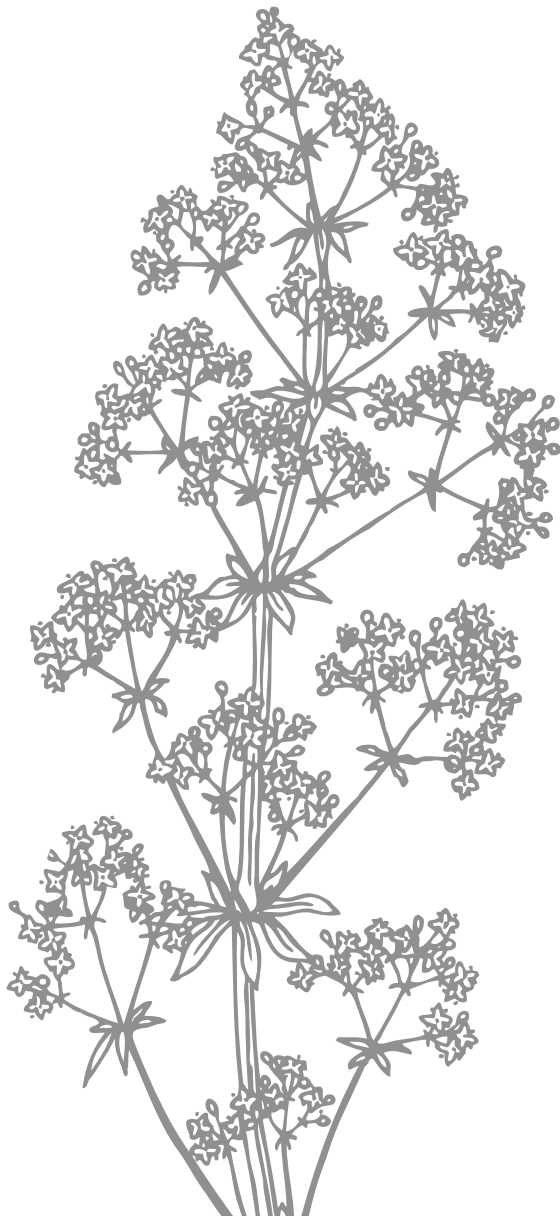
## Extensive Dachbegrünung mit Substraten aus regionalen Bodenmaterialien und Pflanzen pannonischer Trockenrasen

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Das LFZ Schönbrunn, Abt. Garten- und Landschaftsgestaltung, führt seit Herbst 2008 ein wissenschaftliches Projekt durch, dessen Ziel es ist, eine naturnahe Alternative zur herkömmlichen Begrünung von Extensivdächern zu entwickeln. Dabei wurde ein Dachgartensubstrat auf der Basis von lokalen Bodenmaterialien entwickelt sowie ein Set von 47 Pflanzen der pannonischen Trocken- und Halbtrockenrasen ausgewählt. Die Pflanzen und das Substrat werden auf ihre Eignung für die extensive Dachbegrünung überprüft.

Stellwand-Nr.  
Poster Panel No. **17**



## Contribution to the restoration of dwarf-shrub heathlands on dump sites in the Lusatian Lignite District (Germany)

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Former landscape of the open-cast mine Nochten was one of the classic heathland regions in East Germany. For this reason, it is necessary to search for possibilities to re-establish initials of heaths restoring the post-mining landscape. In order to provide the necessary database, site parameters of 20 spontaneous settlements of *Calluna vulgaris* on several dump sites (Brandenburg-S and Saxony-NO) have been analyzed. Test sites were located north of the village Nochten (Free State of Saxony, 14° 28'48''- 14° 40'07''E and 51° 28'53''- 51° 25'11''N).

As parts of the experiment, the use of regional seed (capsules) and mowing material, sods from surrounding heaths as well as young plants of heather were tested on a plane and an inclined site each. Three experimental blocks (sparse protective sowing with *Festuca brevipila*, birch shelter planting, control variant) were considered. The field trial started in autumn of 1999 with repetitions of all experimental plots established in following spring. All plots were 100 m<sup>2</sup> in size and surrounded by walls (50 cm in height) made of birch twigs. Heather plants were 3 to 5 years old and classified into four size classes. For seeding whole capsules were used in a density of 1.5 g\*m<sup>-2</sup>. A final control investigation was carried out in 2008, eight years after starting the experiment.

After evaluation of the field trial, following recommendations for the initiation of heathlands are given. Sites with low base saturation (below 40%), rich in fine-sand fraction (> 20%), low pH values (optimum 3.5 to 5.0), phosphorus and potassium deficiency, medium to wide C/N ratios and with increased silt and clay content are most suitable.

Planting of heather seedlings is predominantly unproblematic, but it should be realized only in autumn using middle-sized 2 to 4 years old container plants. After 3 years the survival rate is usually 50-75%. Due to a rapid development of inflorescences a 2nd Generation of plants appear 3 to 5 years after planting. Sowing of heather is only successful on plane sites after establishing a sparse protective vegetation cover or in the presence of spontaneous pioneer vegetation. Inhibitory effects on the developing heath are not observed. Following a critical establishing phase a well developed heath cover is established within five years after sowing. Using sods, however, bear the risk of displacement of stolons of *Calamagrostis epigejos*, which subsequently benefits from nitrogen output of the shelter walls.

Stellwand-Nr.  
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