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**SPHAGNUM FARMING IN GERMANY: HOW TO MAXIMIZE PEATMOSS YIELDS**

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Most promising areas for *Sphagnum* farming in Germany are degraded bogs in the northwest (Lower Saxony), like cut-over bogs or bog grasslands to produce *Sphagnum* biomass for growing media. Since 2004 we investigate in greenhouse and field experiments which site conditions stimulate *Sphagnum* growth and how they can be transferred to large-scale application. All experiments show the high and stable water table as the decisive factor for good *Sphagnum* growth, whereas fertilization is not necessary under nutrient rich conditions like in Lower Saxony. Thus, an automatic water management for *Sphagnum* farming sites is indispensable: irrigation during summer and discharge of surplus water to prevent flooding in particular during winter. As vascular plants may impede the growth of the peatmosses and may impair the quality of the raw material for horticultural substrates, their cover could be kept low by regular mowing. In addition to the site conditions *Sphagnum* growth can be accelerated by a rapid establishment of the peatmoss lawn. It depends on sufficient cover density and the size of initially peatmoss fragments when installing the culture. These preconditions at a field experiment on former bog grassland enabled the establishment of a thick, dense and productive peatmoss lawn 1.5 years after field preparation with annual *Sphagnum* growth rates up to 8.7 t dry mass per hectare.

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