

Poplar Seminar Sweden

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Sweden has about 23.10^6 ha of forested land, mainly consisting of coniferous forests, used for the pulp and paper industry and for sawn timber. A relatively small amount of hardwood, mainly birch and aspen, is harvested and used in the paper industry. Considerable volumes of hardwood are currently imported to satisfy the needs of the industry.

Aspen (*Populus tremula*) occurs in some counties with an abundance of about 10%, but in most parts of Sweden, the aspen cover is between 0 and 3%. During the last decades, experimental sites have been planted with hybrid aspen and hybrid poplar, comprising currently less than 400 ha. The latest results show that under semi-commercial conditions, a MAI can be reached from $3.3 \text{ Mg } (\sim 7.5 \text{ m}^3) \text{ ha}^{-1} \text{ yr}^{-1}$ to about $9 \text{ Mg } (\sim 20 \text{ m}^3) \text{ ha}^{-1} \text{ yr}^{-1}$ in the north and south of Sweden, respectively.

Willow cultivation as a source of biomass for energy purposes has been developed by means of a National Energy Forestry Programme and expanded from only a few ha around 1970 to about 17 000 ha in the year 2 000. Depending on the CAP-development, this area may well increase to about 200 000 ha during the next 15 years.

New applications with a high economic potential are developing rapidly, focusing on phytoremediation and nutrient circulation. Large-scale applications have started in Sweden to recycle wood ash and municipal wastewater and sludge into willow forests used to produce biomass for energy. Utilized in such a way, willow production systems may come to play a key role in linking the city to the countryside by means of nutrient circulation and thus providing a means to turn waste into valuable resources.

Poplar and willow cultivation in Sweden is performed on agricultural land. Presently, the major barrier for large-scale implementation of poplar and willow cultivation is the lack of long term-regulations within the CAP-framework. From a Swedish perspective, we suggest as a high priority area an update of the CAP, to include incentives - planting subsidies on ordinary and set-aside land - for woody biomass production, even comprising cultivations with a rotation period longer than 10 years.