

GENERAL INFORMATION

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MATERIALS & METHODS

study area	2g
time period	1982
goal	What are the general characteristics, the crown and stem development, the vertical and horizontal structure, and the degree of differentiation of an artificial 12-year-old alder thicket?
set-up	10 tree cells: central tree + 6 surrounding trees 10 tree pairs: dominant and suppressed tree in each tree cell
data collection	height, diameter, branch-free stem length, crown characteristics, crown and stem shape
remarks	2-year old nursery plants were planted in a 3 m x 3 m triangular pattern on a former meadow in 1972

RESULTS

Height growth was ca. 86 cm/year; growth culmination occurred after 10 years. Mean diameter increment was 0.94 cm/year. The total leaf mass was 3.64 ton/ha; leaf fall occurred between July and October, with peak leaf fall in July and the end of October. Overall, the growth of grey alder was relatively high.

Competition between the trees started at around 10 years of age; height growth is more affected than diameter growth. Differentiation was still taking place; there was a clear secondary layer, but the dominant trees were not superior for all tree characteristics (e.g., crown projection area).

Wide-spaced plantings of grey alder should be protected against external damaging agents during the first growing years. Management should start focusing on individual trees when canopy closure occurs and competition between dominant trees starts.