

GENERAL INFORMATION

author(s)	Ramon J
year	1981
English title	Growth of 10-year-old cherry, elm, birch, and sycamore
original title	Initiële ontwikkeling en ontwikkelingsverhoudingen van kers, olm, berk en esdoorn in een tienjarig bosbestand
reference	Msc thesis, Ghent University, Ghent
pages	117
type	dissertation (d2)
ecosystem service	supporting – forest dynamics
keywords	regeneration, tree growth
taxa	<i>Prunus avium</i> – <i>Ulmus campestris</i> – <i>Betula pendula</i> – <i>Corylus avellana</i>
project	
supervisor	Van Miegroet M
institution	Laboratory of Forestry
document	hardcopy
data	

MATERIALS & METHODS

study area	5m
time period	1980
goal	Comparison of the growth and competition potential of cherry, elm, birch, and sycamore.
set-up	inventory of the entire stand
data collection	tree position, dbh, crown radius, tree height, branch-free stem length
remarks	<ul style="list-style-type: none"> - stand planted in 1970 during the first tree planting (1970 = the European Year of Nature Conservation): cherry, elm, birch, hazel - 1972: gaps planted with sycamore - map with tree positions, drawings of profiles of transects

RESULTS

	elm	cherry	sycamore	birch
canopy density	+	+	-	-
crown projection	+	+	-	-
height stratification	+	-	-	+
tree height	+	+	-	-
tree diameter	+	+	-	-
crown diameter	+	+	-	-
crown surface	+	+	-	-
crown volume	+	+	-	-
slenderness crown	-	-	+	+
slenderness stem	-	-	+	+
asymmetry	+	-	-	-
productivity		+		-
differentiation	+	-	-	+
order growth relationship	1	2	1 or 2	1
stem increment	+	+	+-	-

diameter stem vs. crown	-	+	+	-
crown productivity	+ -	+	+	-
tolerant	+	+	+	-

In stands with spacious planting, early management of crown development is essential. Elm and cherry have a lead in growth 10 years after planting whereas birch stayed behind. Stem density of birch decreased the most strongly. Cherry has the highest potential for future development; birch shows low potential; elm growth seems to culminate early. Group mixture can be a useful measure to get tree species with non-differentiated growth into the future stand.