GENERAL INFORMATION

author(s)	De Laethauwer E
year	1978
English title	Leaf characteristics and leaf biomass of beech (*Fagus sylvatica* L.)
original title	Bladkenmerken en bladbiomassa bij de beuk (*Fagus sylvatica* L.)
reference	Msc thesis, Ghent University, Ghent
pages	79
type	dissertation (d2)
ecosystem service	supporting - photosynthesis
keywords	leaf characteristics – leaf area
taxa	*Fagus sylvatica* L.
project	Msc thesis
supervisor	Van Miegroet M
institution	Laboratory of Forestry
document	hardcopy
data	

MATERIALS & METHODS

study area	
time period	May–September 1976, July–September 1977
goal	Find a relationship between leaf area and other leaf characteristics
set-up	beech trees of different age and growing in different growth/light conditions
data collection	morphological: length, width, leaf area (photocopies of fresh leaves) biomass: dry mass 1) 20 nursery plants / month (May-September 1976): 20 leaves / plant 2) 5 nursery plants (sun), 5 nursery plants (partly shaded), 5 forest plants (shaded): 10 leaves / plant (September 1976) 3) 2 beech of 8 m height: forest with/without dense understory: 30 leaves top part of crown, 30 leaves bottom part of crown (September 1976) 4) Beech trees of 25–27 m height (1 per month – July-September 1977): 20 leaves for the four cardinal points at 1/3 and 2/3 of the crown depth
remarks	Tree nursery of the Laboratory of Forestry (next to the hangar)

RESULTS

Two periods of leaf formation: start of the growing season and end June/beginning of July. Light availability affects leaf development: seedlings have larger and thicker leaves in sunny conditions; adult trees show smaller but heavier leaves in de top crown than in the bottom part of the crown in shaded conditions.

Strong relationships occurred between leaf area and the other leaf characteristics (mainly leaf width), but the relationships were dependent on the growing conditions (time of sampling, position in the crown, light conditions, tree age).