

## GENERAL INFORMATION

<b>author(s)</b>	Schauvliege M, Samson R, Muys B
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<b>institution</b>	Ghent University (Laboratory of Forestry, Laboratory of Plant Ecology)
<b>document</b>	pdf
<b>data</b>	

## MATERIALS & METHODS

<b>study area</b>	
<b>time period</b>	
<b>goal</b>	effect of tree species on carbon sequestration: oak-beech-ash effect of age: ash and pin oak
<b>set-up</b>	
<b>data collection</b>	
<b>remarks</b>	Aelmoeseneie forest used as a case study (for the C in Flemish forests). See: <ul style="list-style-type: none"><li>- Schauvliege_1995_th: species effect</li><li>- Van Camp_1995_th: age effect</li><li>- Lootens_1995_PhD: effect of atmospheric CO<sub>2</sub> levels</li></ul>

## RESULTS

The total C content of the oak-beech stand was 264 t/ha, vs. 286 t/ha for the ash stand. The difference between the two stands occurred mainly in the soil: the ash stand has a high carbon content in the soil, its soil carbon content is 2.5 times the aboveground carbon content. The ratio is ca. 1.5 for the oak-beech stand. The C content of the tree layer was somewhat higher for oak-beech. The shrub layer was more developed for the ash stand; in the oak-beech stand, the litter layer is thick, with a high C content.

The C content of the soil was less in young stands. The young ash stand had a higher C content than the pasture; the young pin oak stand had a lower C content than the pasture because the aboveground C sequestration had not yet equalled the belowground C loss. The results suggest that for trees with fast decomposing rich leaf litter the amount of C will be already high in young stands.