

## GENERAL INFORMATION

<b>author(s)</b>	Bussche B
<b>year</b>	1998
<b>English title</b>	Nutrient budget of the experimental forest Aelmoeseneie
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<b>taxa</b>	<i>Fagus sylvatica</i> , <i>Quercus robur</i>
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<b>supervisor</b>	Lust N
<b>institution</b>	Faculty of Agricultural and Applied Biological Sciences, Laboratory of Forestry
<b>document</b>	hardcopy
<b>data</b>	mass & nutrient content stem discs (annex 1-5), branches (annex 6-7), litter mass (annex 10-13)

## MATERIALS & METHODS

<b>study area</b>	5n (scientific zone)
<b>time period</b>	1996
<b>goal</b>	
<b>set-up</b>	8 model trees oak, 2 model trees beech (+ stem disks Schauvliege_1995_th) <ul style="list-style-type: none"> <li>- branches from top, middle, bottom part of the crown: 4 d classes (&lt; 2.5, 2.5-4, 4-7, &gt; 7 cm)</li> <li>- stem parts of 1 m</li> </ul>
<b>data collection</b>	branches <ul style="list-style-type: none"> <li>- dry and fresh mass subsample</li> <li>- N, P, K, Ca, Mg content</li> </ul> stem <ul style="list-style-type: none"> <li>- fresh mass</li> <li>- fresh + dry mass bark, sapwood, heartwood (beech only bark vs. wood)</li> <li>- N, P, K, Ca, Mg content for stem disks at 1, 4, 7, 10, 13, 16, 19 m</li> </ul> deposition data from level II for 1996 (Level_II.doc) litter <ul style="list-style-type: none"> <li>- 30 random traps</li> <li>- October-January: 4 sample dates</li> <li>- 6 nets: fresh + dry mass leaves oak/beech, branches, fruits</li> <li>- 24 nets: fresh + dry mass mixed leaf sample, sample branches+fruits</li> <li>- N, P, K, Ca, Mg</li> </ul>
<b>remarks</b>	used in Neiryneck_2000_rep (level II)

## RESULTS

The nutrient concentration and nutrient uptake was higher for oak than for beech, in the wood as well as the leaves. For oak, the stem nutrients occur mainly in the wood (except for Ca, which occurs mainly in the bark). Overall litterfall was 4.2 ton/ha/yr, of which 67 % were leaves.

		N	P	Ca	K	Mg
kg/ha/yr	stand	62.77	4.53	36.62	62.57	6.14
	stem-oak	193.37	17.09	174.95	68.77	15.48
	branch-oak	132.03	5.02	81.37	41.02	11.21
	stem-beech	146.21	3.02	168.57	78.7	13.8
	branch-beech	106.95	6.35	39.24	37.47	7.37
	crown leaching			4.18	36.05	2.64
	leaf litter-oak	25.98	1.9	16.6	9.12	1.42
	leaf litter-beech	9.39	0.54	4.23	3.18	0.32
	branch litter	9.95	0.78	2.01	6.37	0.47
	fruit litter	7.04	0.62	1.28	3.82	0.36
kg/kg dry mass	oak	7.17	0.54	4.87	2.5	0.45
	beech	5.25	0.27	2.8	1.98	0.25