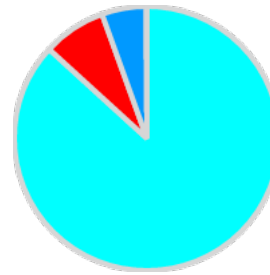


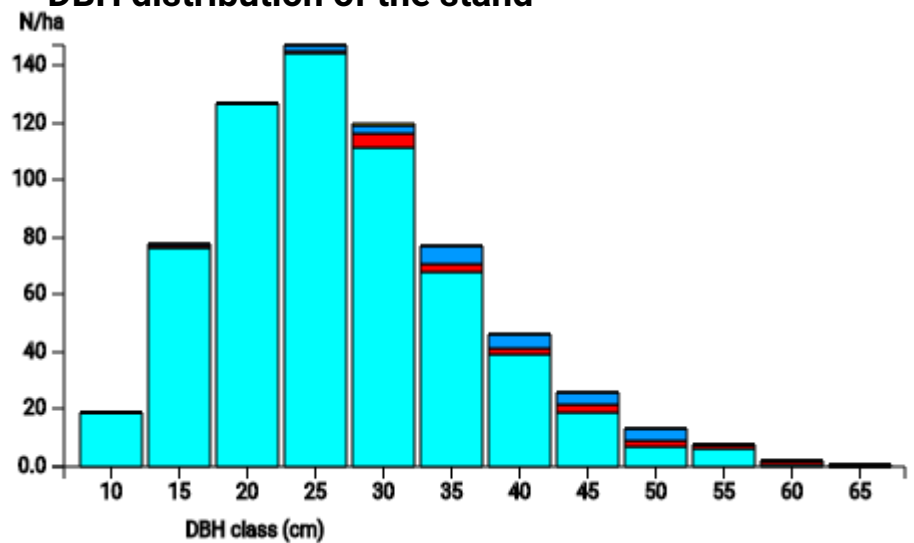
27/07/2021 GruppoB 27lug

**Site conditions**

Altitude: 1270 m.a.s.l.  
 Forest ecological region: Tuscany  
 Geology / Bedrock: Sandstone  
 Soil type: Brown podzolic soil  
 Natural forest community:  
 Asperulo-Fagetum  
 Mean annual temperature: 8.7 C;  
 Mean annual precipitation: 1642  
 mm; Ownership: State;  
 Establishment: 2020

**Tree species distribution by volume (in %)**

common beech: 86.8 %  
 silver fir: 7.7 %  
 sycamore maple: 5.4 %  
 goat willow: 0.1 %

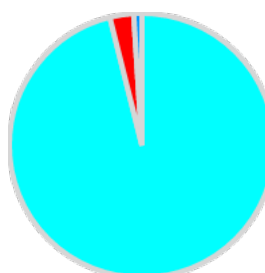
**DBH distribution of the stand****Initial stand (details by tree species)**

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	617	44.3	484	41247	19808	1283
goat willow	1	0.1	0.8	70	24	3
silver fir	21	3.3	43.1	3060	245	25
sycamore maple	25	3.2	29.9	2409	1664	99
Total	664	50.8	557.9	46786	21741	1410

### Removed trees

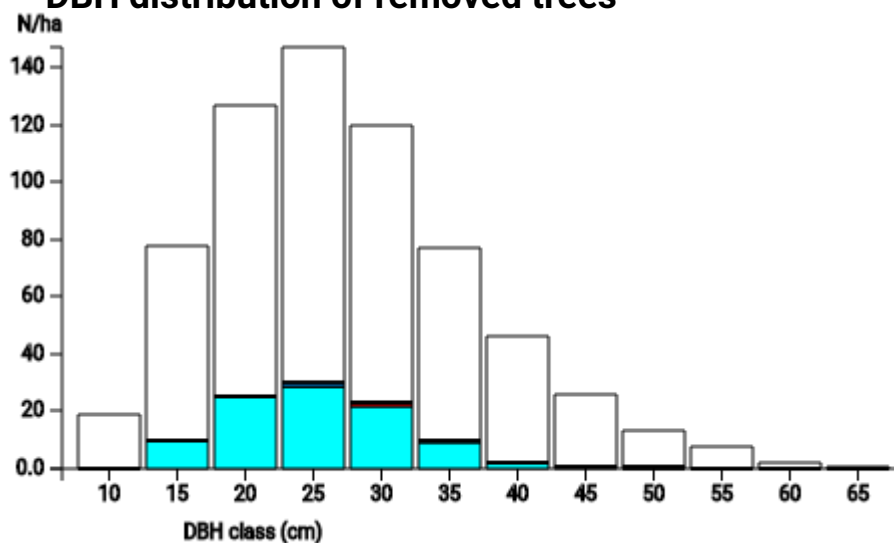
Volume: 72.5 m<sup>3</sup>  
 Basal area: 6.7 m<sup>2</sup>  
 Economic value: 6109 €  
 Habitat value: 2466 pts.

### Removed trees (N in %)



- common beech: 96.1 %
- silver fir: 2.9 %
- sycamore maple: 1 %
- goat willow: 0 %

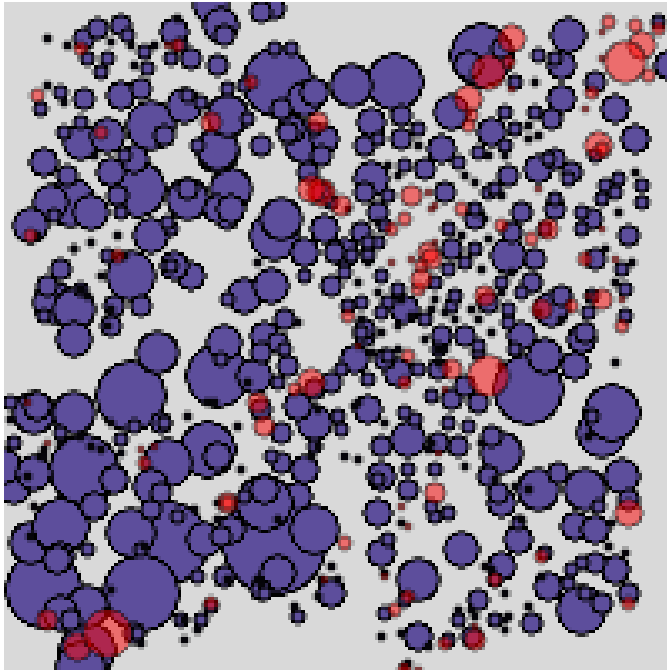
### DBH distribution of removed trees



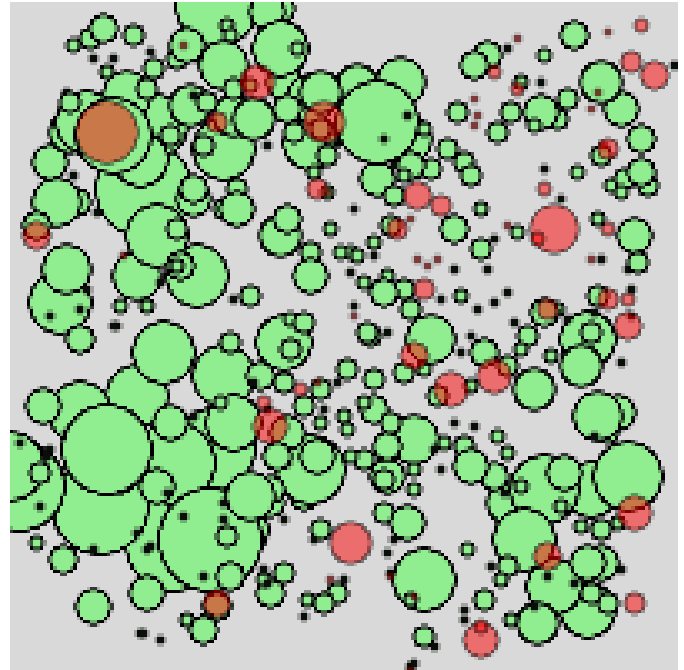
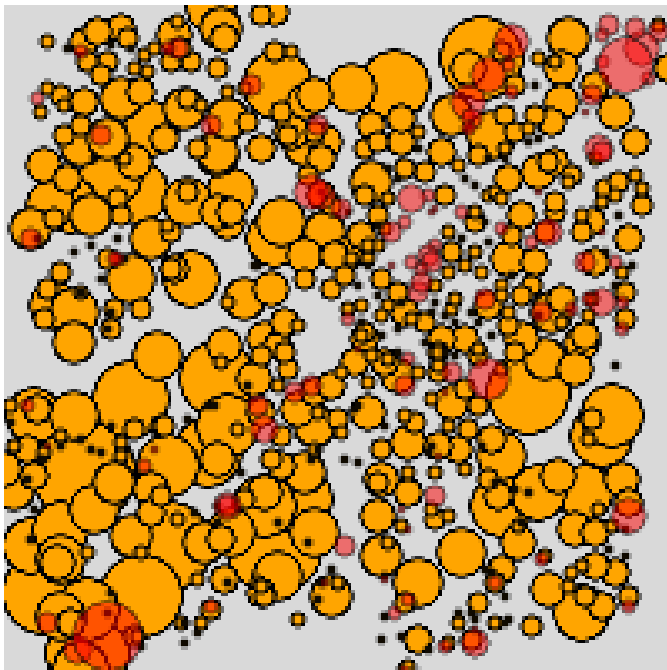
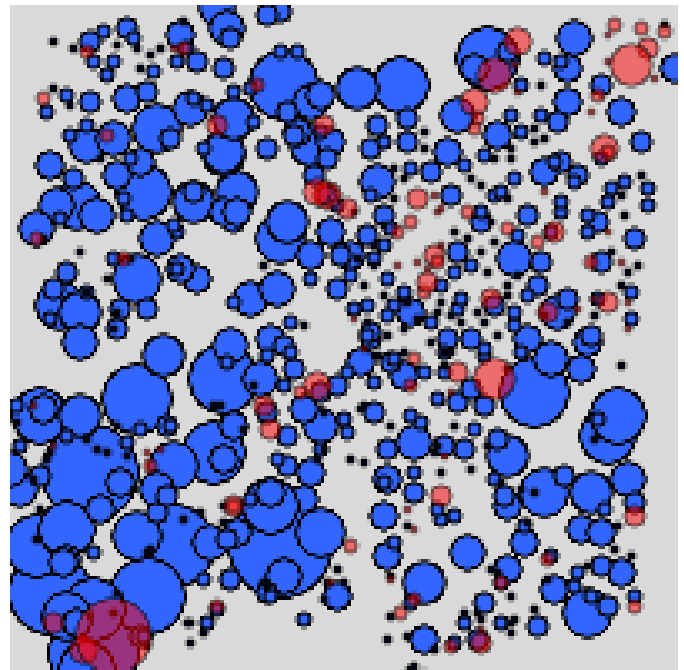
### Removed trees (details by tree species)

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	98	6.2	65.4	5600	2437	159
goat willow	0	0	0	0	0	0
silver fir	3	0.4	5.8	400	8	2
sycamore maple	1	0.1	1.3	108	21	3
<b>Total</b>	<b>102</b>	<b>6.7</b>	<b>72.5</b>	<b>6109</b>	<b>2466</b>	<b>164</b>

Economic value [EUR]



Habitat value

Basal area [m<sup>2</sup>]Volume [m<sup>3</sup>]**Description:**

Red circles (removed trees); circle size according to numerical values (e.g. large circles mean high values); trees with very low values (e.g. habitat value "0") are not visible.

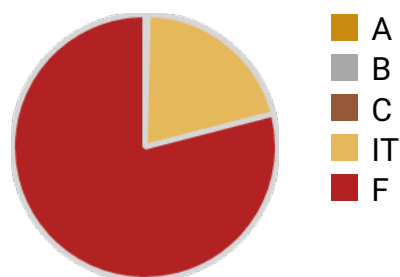
### Economic values

Total value of removed trees: 6109 €  
 Percentage of total stand value: 13.1 %  
 Stand value after harvest: 40678 €

### Economic value by tree species [€]

Tree species	Total	Per m <sup>3</sup>
common beech	5600	86
silver fir	400	69
sycamore maple	108	84
goat willow	0	0
Total	6109	84

### Wood quality distribution (m<sup>3</sup> in %)



Quality class	m <sup>3</sup>	%
A	0	0
B	0	0
C	0.3	0.4
Industrial Timber	14.9	20.6
Fuelwood	57.3	79

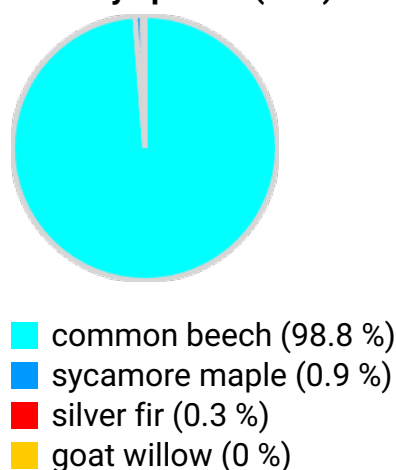
### Habitat values

Total habitat value of removed trees: 2466 pts.  
 Percentage of total stand value: 11.3 %  
 Stand value after harvest: 19275 pts.

### Habitat value by tree species [pts.]

Tree species	Total	Per m <sup>3</sup>	Microhabitats [N]
common beech	2437	37.3	159
silver fir	8	1.4	2
sycamore maple	21	16.3	3
goat willow	0	0	0
Total	2466	34	164

### Habitat value (points) of removed trees by species (in %)



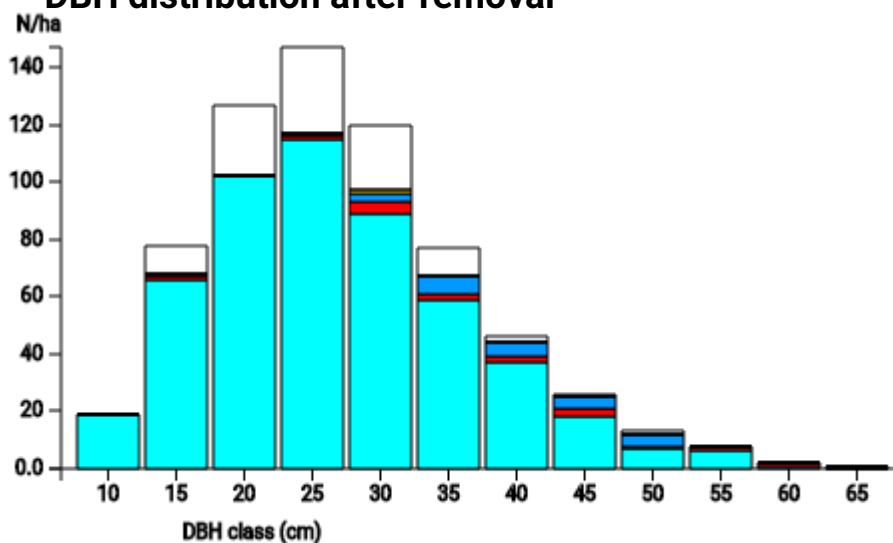
### Remaining stand

Volume: 485.3 m<sup>3</sup>  
 Basal area: 44.2 m<sup>2</sup>  
 Economic value: 40678 €  
 Habitat value: 19275 pts.

### Remaining trees by volume (m<sup>3</sup> in %)



### DBH distribution after removal



### Remaining stand (details by tree species)

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	519	38.1	418.6	35647	17371	1124
goat willow	1	0.1	0.8	70	24	3
silver fir	18	2.9	37.3	2660	237	23
sycamore maple	24	3.2	28.6	2300	1643	96
Total	562	44.2	485.4	40678	19275	1246

**Retention trees**Volume: 74.6 m<sup>3</sup>

Elite trees: 30

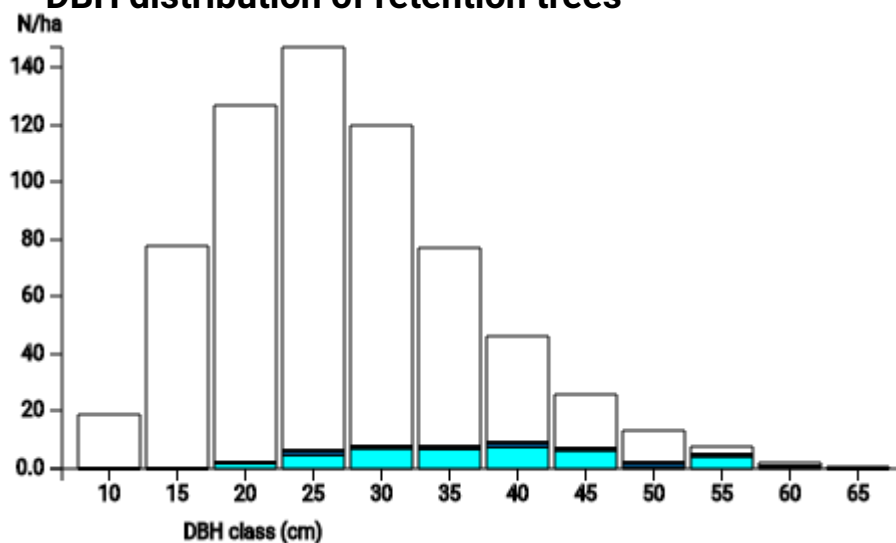
Habitat trees: 10

Economic value: 6200 €

Habitat value: 2482 pts.

**Retention trees by volume (m<sup>3</sup> in %)**

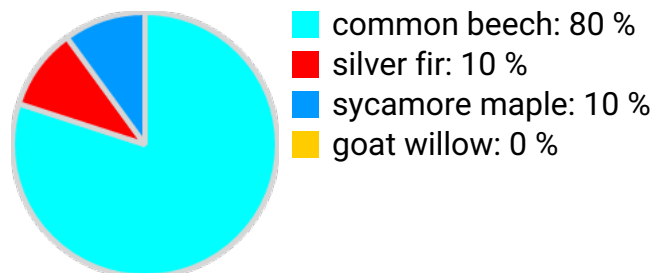
- common beech: 85.1 %
- silver fir: 8.9 %
- sycamore maple: 6 %
- goat willow: 0 %

**DBH distribution of retention trees****Retained trees (details by tree species)**

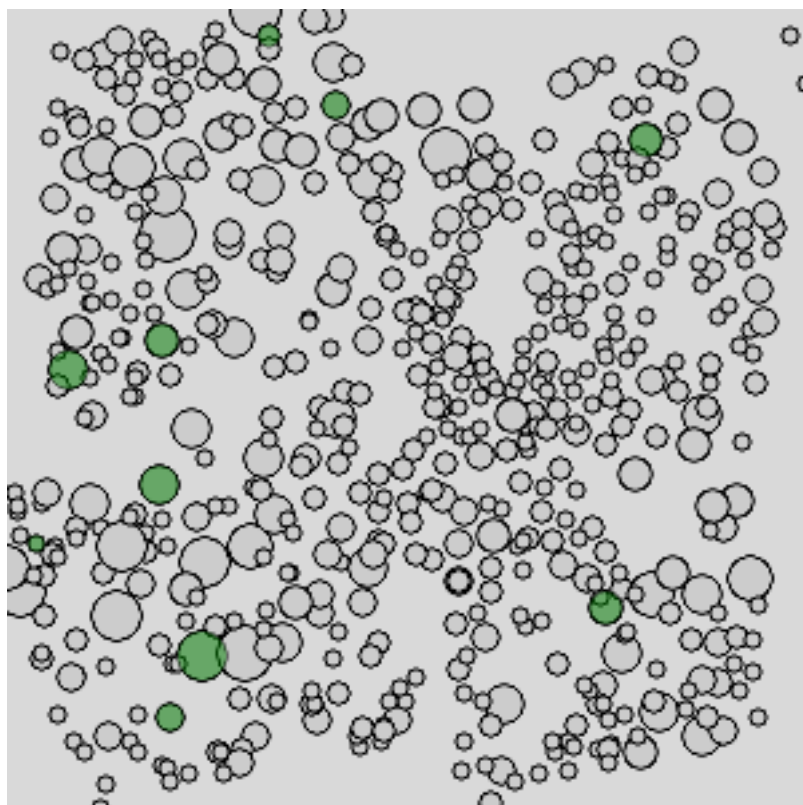
Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
common beech	41	5.4	63.5	5411	2195	148
goat willow	0	0	0	0	0	0
silver fir	3	0.6	6.6	408	7	2
sycamore maple	4	0.5	4.5	381	280	16
Total	48	6.4	74.6	6200	2482	166

Number of habitat trees	[N]	10
Habitat value	pts.	953
	[% of total]	4.4
Economic value	[€]	1865
	[% of total]	4
Number of microhabitats	[N]	62
	[% of total]	4.4

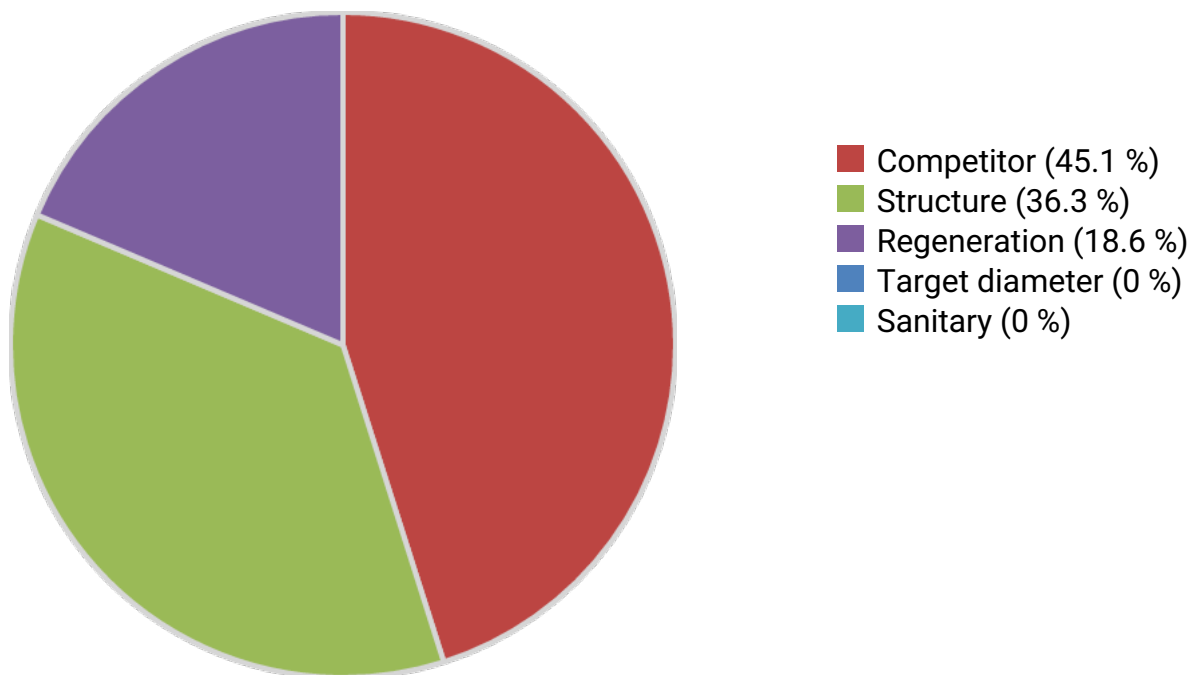
### Habitat tree distribution by species (N in %)



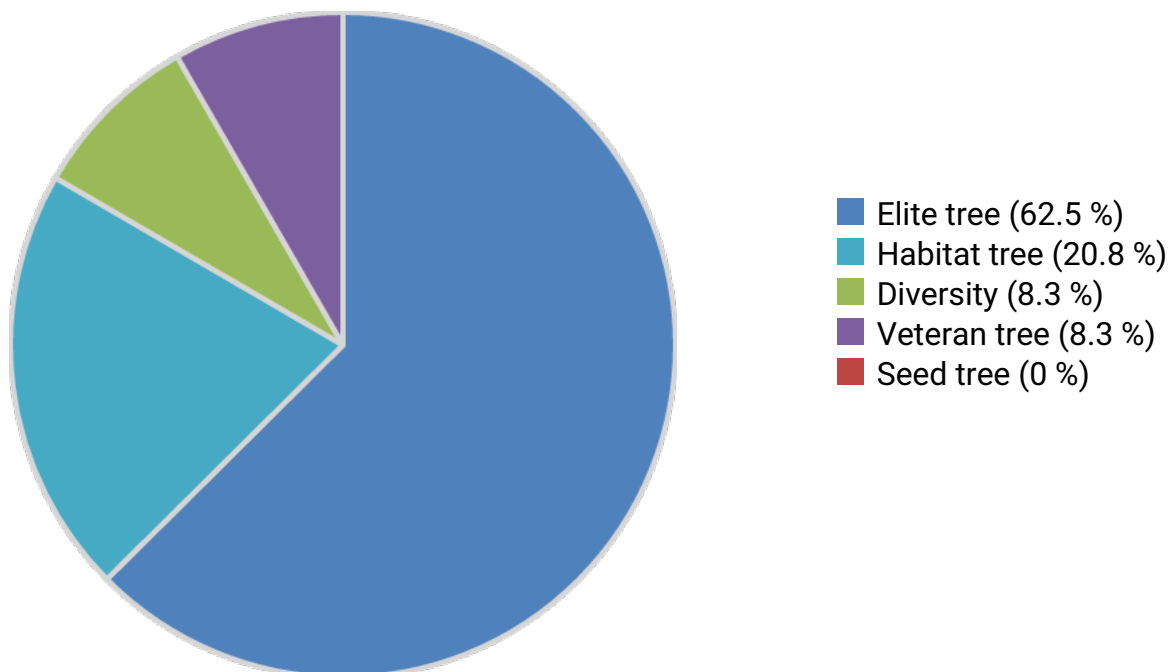
### Spatial distribution of habitat trees



### Reasons for removal

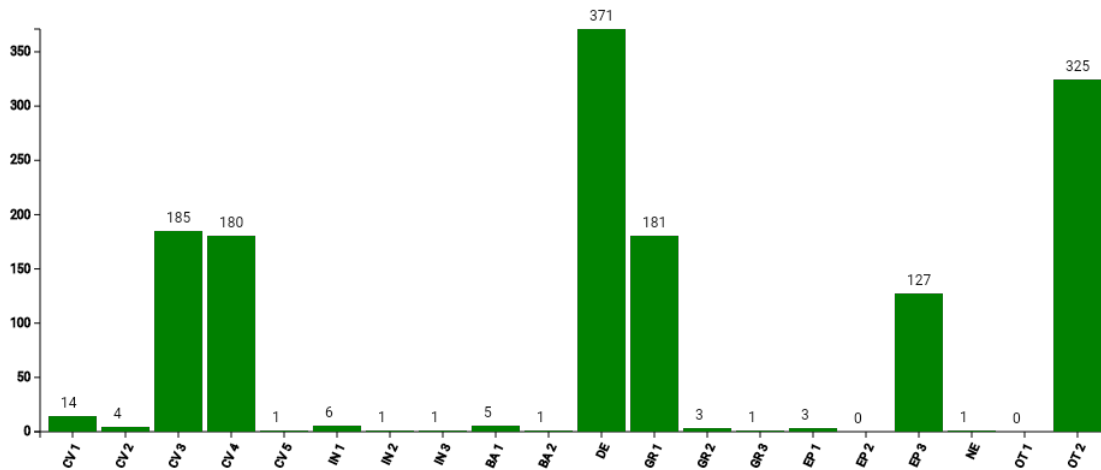


### Reasons for retention

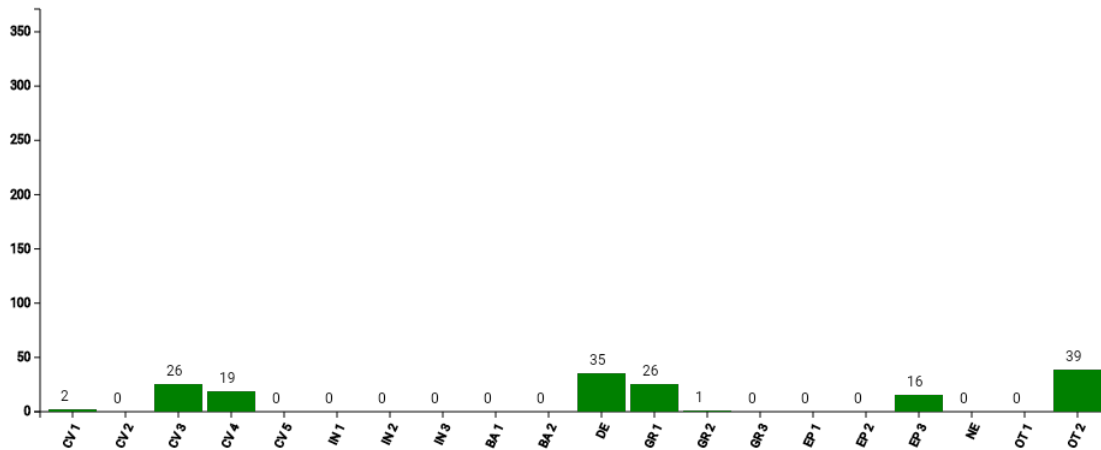




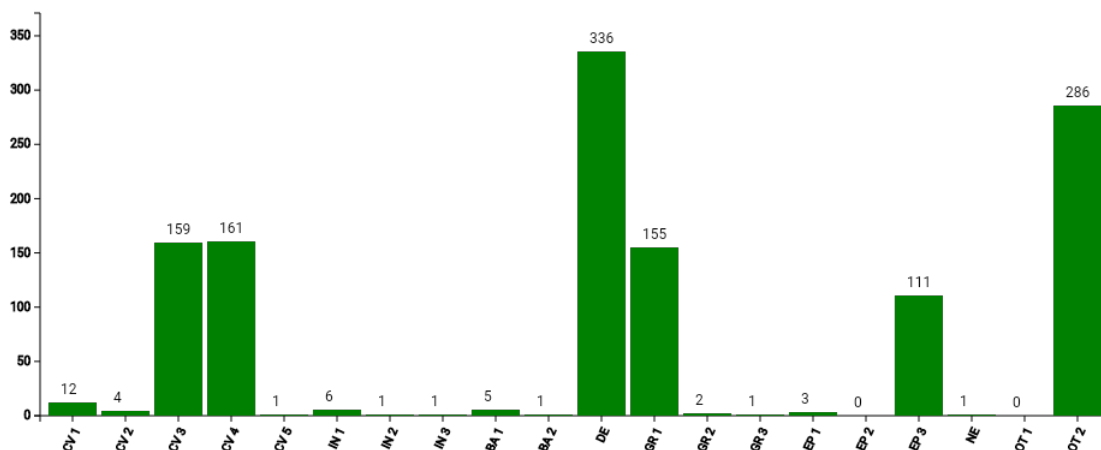
### Distribution of tree microhabitats by code (N total)



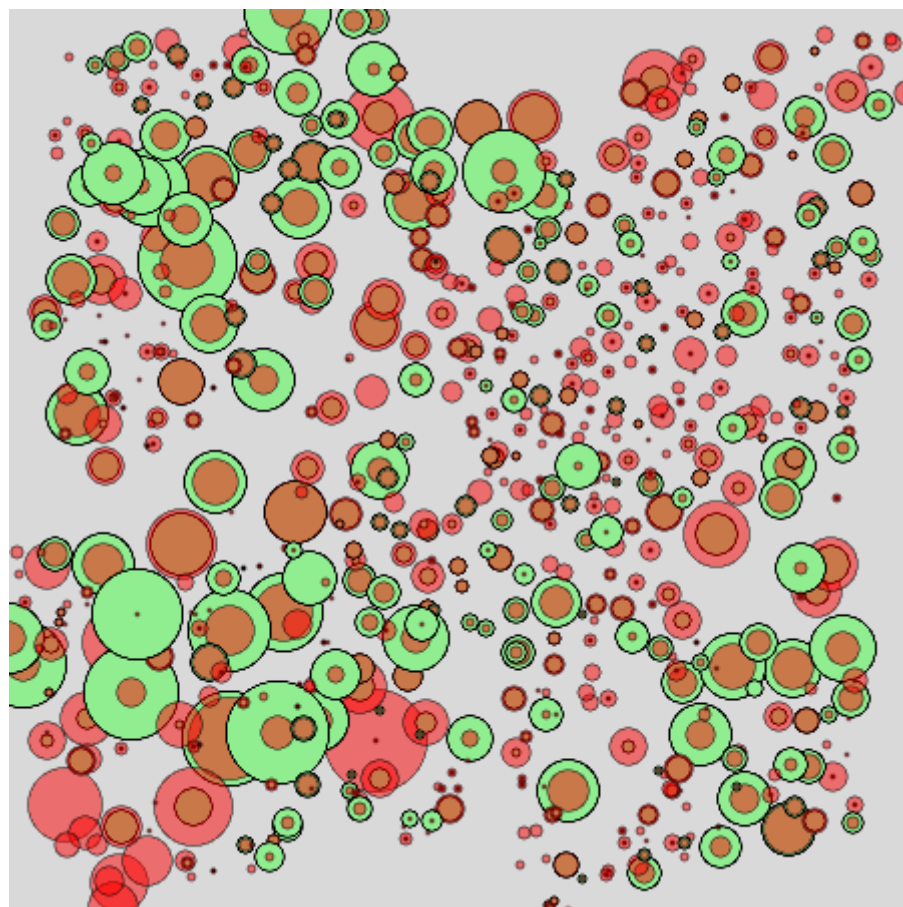
### Removed tree microhabitats by code (N removed)



### Remaining tree microhabitats by code (N after harvest)



For more details on codes consult the field guide "Catalogue of tree microhabitats" or the tree microhabitat app.

**Conflict trees (stand data)****Description:**

Overlay of economic and habitat value: red circles (economic value), green circles (habitat value); circle size according to numerical values (e.g. large circles mean high values); trees with very low values are not visible. Trees where both values overlap considerably represent so called "conflict trees".

## Removed trees

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
silver fir (480) Abies alba	53.2	0.22	3.5	197	0	Competitor
common beech (21) Fagus sylvatica	47.5	0.18	1.9	159	49	Regeneration
common beech (566) Fagus sylvatica	42.6	0.14	1.8	154	78	Structure
common beech (106) Fagus sylvatica	40.5	0.13	1.5	127	30	Structure
common beech (506) Fagus sylvatica	38.5	0.12	1.1	97	80	Competitor
common beech (18) Fagus sylvatica	38.2	0.12	1.1	96	6	Regeneration
common beech (213) Fagus sylvatica	37.8	0.11	1.2	102	48	Structure
common beech (105) Fagus sylvatica	37.5	0.11	1.2	102	22	Competitor
common beech (86) Fagus sylvatica	37	0.11	1.2	101	14	Competitor
common beech (211) Fagus sylvatica	36.8	0.11	1.2	103	12	Structure
common beech (378) Fagus sylvatica	36.8	0.11	1.1	94	75	Competitor
silver fir (499) Abies alba	36.1	0.1	1.3	112	4	Competitor
common beech (54) Fagus sylvatica	36	0.1	1.1	93	102	Competitor
common beech (145) Fagus sylvatica	35.8	0.1	1	82	60	Regeneration
common beech (517) Fagus sylvatica	34.8	0.1	1	82	42	Structure
common beech (414) Fagus sylvatica	34.2	0.09	0.8	73	0	Structure
common beech (23) Fagus sylvatica	34.2	0.09	1.1	98	12	Structure
common beech (602) Fagus sylvatica	33.3	0.09	1	85	71	Competitor
common beech (174) Fagus sylvatica	33	0.09	0.9	77	99	Structure
common beech (535) Fagus sylvatica	33	0.09	0.9	80	44	Competitor
common beech (141)	32.9	0.09	1	82	6	Regeneration

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (179) Fagus sylvatica	32.1	0.08	0.9	73	6	Structure
common beech (34) Fagus sylvatica	32.1	0.08	0.8	68	14	Structure
silver fir (498) Abies alba	31	0.08	1	91	4	Structure
common beech (228) Fagus sylvatica	30.9	0.08	0.8	68	84	Structure
common beech (291) Fagus sylvatica	30.8	0.08	0.8	67	132	Competitor
common beech (133) Fagus sylvatica	30.8	0.08	0.9	75	0	Regeneration
common beech (380) Fagus sylvatica	30.8	0.08	0.8	71	36	Competitor
common beech (140) Fagus sylvatica	30.5	0.07	0.8	68	39	Regeneration
common beech (245) Fagus sylvatica	30.4	0.07	0.9	73	42	Competitor
common beech (19) Fagus sylvatica	30.3	0.07	0.7	61	25	Regeneration
common beech (591) Fagus sylvatica	30.2	0.07	0.8	72	0	Competitor
common beech (353) Fagus sylvatica	30.2	0.07	0.8	65	98	Structure
common beech (619) Fagus sylvatica	30.1	0.07	0.6	54	6	Competitor
common beech (134) Fagus sylvatica	30	0.07	0.8	70	15	Regeneration
common beech (24) Fagus sylvatica	30	0.07	0.7	64	48	Competitor
common beech (607) Fagus sylvatica	30	0.07	0.9	74	3	Competitor
common beech (340) Fagus sylvatica	29.6	0.07	0.5	46	68	Structure
common beech (96) Fagus sylvatica	29.5	0.07	0.9	74	0	Structure
common beech (157) Fagus sylvatica	29.5	0.07	0.7	57	44	Regeneration
common beech (415) Fagus sylvatica	29.3	0.07	0.6	54	0	Structure

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (20) Fagus sylvatica	29	0.07	0.7	63	0	Regeneration
common beech (2) Fagus sylvatica	29	0.07	0.7	60	4	Regeneration
common beech (42) Fagus sylvatica	28.8	0.07	0.7	61	8	Competitor
common beech (362) Fagus sylvatica	28.7	0.07	0.7	56	36	Structure
common beech (250) Fagus sylvatica	28.7	0.07	0.6	52	9	Competitor
common beech (104) Fagus sylvatica	28.5	0.06	0.7	60	12	Competitor
sycamore maple (347) Acer pseudoplatanus	28.5	0.06	1.3	108	21	Competitor
common beech (144) Fagus sylvatica	28.1	0.06	0.7	58	18	Regeneration
common beech (617) Fagus sylvatica	28	0.06	0.7	58	57	Competitor
common beech (103) Fagus sylvatica	28	0.06	0.6	52	12	Competitor
common beech (581) Fagus sylvatica	28	0.06	0.8	66	0	Structure
common beech (77) Fagus sylvatica	28	0.06	0.6	52	8	Structure
common beech (288) Fagus sylvatica	27.9	0.06	0.6	49	0	Structure
common beech (503) Fagus sylvatica	27.6	0.06	0.5	43	64	Competitor
common beech (296) Fagus sylvatica	27.4	0.06	0.7	62	14	Structure
common beech (434) Fagus sylvatica	26.9	0.06	0.7	58	6	Structure
common beech (543) Fagus sylvatica	26.8	0.06	0.7	58	57	Competitor
common beech (112) Fagus sylvatica	26.8	0.06	0.6	48	6	Competitor
common beech (336) Fagus sylvatica	26.7	0.06	0.5	45	6	Structure
common beech (17) Fagus sylvatica	26.5	0.06	0.5	44	64	Regeneration

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (422) Fagus sylvatica	25.5	0.05	0.5	44	65	Competitor
common beech (657) Fagus sylvatica	25.4	0.05	0.5	47	0	Competitor
common beech (501) Fagus sylvatica	25.2	0.05	0.5	39	32	Competitor
common beech (59) Fagus sylvatica	25	0.05	0.5	45	36	Competitor
common beech (203) Fagus sylvatica	25	0.05	0.5	42	14	Structure
common beech (631) Fagus sylvatica	24.9	0.05	0.6	49	6	Competitor
common beech (634) Fagus sylvatica	24.8	0.05	0.6	50	14	Competitor
common beech (33) Fagus sylvatica	24.7	0.05	0.5	40	0	Structure
common beech (88) Fagus sylvatica	24.5	0.05	0.5	43	0	Competitor
common beech (142) Fagus sylvatica	24.5	0.05	0.5	43	8	Regeneration
common beech (13) Fagus sylvatica	24	0.05	0.4	35	3	Structure
common beech (297) Fagus sylvatica	23.9	0.05	0.5	38	0	Structure
common beech (143) Fagus sylvatica	23.8	0.04	0.3	27	9	Regeneration
common beech (471) Fagus sylvatica	23.8	0.04	0.5	40	0	Competitor
common beech (37) Fagus sylvatica	23.7	0.04	0.5	41	0	Competitor
common beech (84) Fagus sylvatica	23.6	0.04	0.4	37	36	Structure
common beech (663) Fagus sylvatica	23.6	0.04	0.5	43	18	Structure
common beech (129) Fagus sylvatica	23.5	0.04	0.5	40	0	Competitor
common beech (253) Fagus sylvatica	23.3	0.04	0.4	35	6	Competitor
common beech (44) Fagus sylvatica	23.2	0.04	0.4	38	0	Competitor

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (45) Fagus sylvatica	23.2	0.04	0.4	35	16	Regeneration
common beech (132) Fagus sylvatica	23.2	0.04	0.4	36	0	Regeneration
common beech (662) Fagus sylvatica	22.7	0.04	0.5	38	0	Structure
common beech (600) Fagus sylvatica	22.6	0.04	0.5	38	30	Competitor
common beech (609) Fagus sylvatica	21.8	0.04	0.4	32	0	Competitor
common beech (130) Fagus sylvatica	21.3	0.04	0.3	30	42	Competitor
common beech (205) Fagus sylvatica	20.5	0.03	0.3	28	0	Competitor
common beech (491) Fagus sylvatica	20.3	0.03	0.3	26	0	Competitor
common beech (656) Fagus sylvatica	20.3	0.03	0.3	29	8	Competitor
common beech (41) Fagus sylvatica	20	0.03	0.3	27	14	Regeneration
common beech (370) Fagus sylvatica	19.8	0.03	0.3	28	12	Competitor
common beech (625) Fagus sylvatica	19.7	0.03	0.3	29	0	Structure
common beech (158) Fagus sylvatica	19.6	0.03	0.3	26	0	Regeneration
common beech (29) Fagus sylvatica	19.5	0.03	0.3	22	30	Structure
common beech (61) Fagus sylvatica	19.3	0.03	0.3	24	33	Structure
common beech (628) Fagus sylvatica	19	0.03	0.3	24	0	Structure
common beech (131) Fagus sylvatica	18.8	0.03	0.3	23	0	Structure
common beech (592) Fagus sylvatica	17.2	0.02	0.2	21	72	Competitor
common beech (427) Fagus sylvatica	16	0.02	0.2	18	0	Structure
common beech (433) Fagus sylvatica	15.6	0.02	0.2	18	0	Structure

## Retention trees

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (443) Fagus sylvatica	60.7	0.29	3.8	326	212	Habitat tree
silver fir (481) Abies alba	59.6	0.28	4	226	4	Elite tree
common beech (546) Fagus sylvatica	58	0.26	3.1	264	96	Veteran tree
common beech (459) Fagus sylvatica	57.7	0.26	3.6	306	82	Habitat tree
common beech (430) Fagus sylvatica	57.1	0.26	3.2	272	134	Habitat tree
common beech (218) Fagus sylvatica	55	0.24	3.2	271	76	Habitat tree
sycamore maple (575) Acer pseudoplatanus	52	0.21	1.4	120	88	Habitat tree
common beech (515) Fagus sylvatica	50.1	0.2	2.5	215	84	Diversity
common beech (540) Fagus sylvatica	49.8	0.2	2.3	198	118	Veteran tree
silver fir (472) Abies alba	49.1	0.19	2.6	176	3	Elite tree
common beech (342) Fagus sylvatica	46.5	0.17	2.1	178	142	Habitat tree
common beech (564) Fagus sylvatica	46.5	0.17	1.8	155	36	Veteran tree
common beech (299) Fagus sylvatica	46.2	0.17	2.1	180	105	Habitat tree
common beech (225) Fagus sylvatica	45.6	0.16	2	168	65	Elite tree
common beech (391) Fagus sylvatica	45.2	0.16	1.7	144	44	Veteran tree
common beech (596) Fagus sylvatica	44	0.15	1.7	143	30	Elite tree
common beech (350) Fagus sylvatica	43.8	0.15	1.6	135	36	Diversity
common beech (230) Fagus sylvatica	43.1	0.15	1.6	139	30	Habitat tree
common beech (244) Fagus sylvatica	43	0.15	1.8	154	142	Diversity
common beech (534) Fagus sylvatica	42.2	0.14	1.5	130	38	Elite tree
common beech (235)	41.1	0.13	1.8	152	96	Elite tree



Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
Fagus sylvatica						
common beech (109) Fagus sylvatica	40.8	0.13	1.5	132	42	Elite tree
common beech (311) Fagus sylvatica	40.7	0.13	1.6	135	54	Elite tree
sycamore maple (371) Acer pseudoplatanus	40.6	0.13	1.4	120	52	Elite tree
common beech (22) Fagus sylvatica	38.2	0.12	1.2	105	83	Diversity
common beech (618) Fagus sylvatica	37.6	0.11	1.2	101	50	Elite tree
common beech (251) Fagus sylvatica	37	0.11	1.2	107	0	Elite tree
common beech (4) Fagus sylvatica	36.5	0.11	1.1	96	59	Elite tree
common beech (505) Fagus sylvatica	36.2	0.1	1.1	92	6	Elite tree
common beech (3) Fagus sylvatica	35.5	0.1	1.2	102	10	Elite tree
common beech (209) Fagus sylvatica	35.2	0.1	1	90	36	Elite tree
sycamore maple (43) Acer pseudoplatanus	35.2	0.1	1	87	88	Elite tree
common beech (379) Fagus sylvatica	34.8	0.1	0.9	79	20	Elite tree
silver fir (489) [REPLACE_DEAD]Abies alba	34.6	0.09	0.1	6	0	Habitat tree
common beech (87) Fagus sylvatica	32.6	0.08	0.9	79	8	Elite tree
common beech (124) Fagus sylvatica	32.2	0.08	0.8	73	3	Elite tree
common beech (601) Fagus sylvatica	31.5	0.08	0.9	81	3	Elite tree
common beech (586) Fagus sylvatica	31.4	0.08	0.9	74	24	Elite tree
common beech (67) Fagus sylvatica	30.6	0.07	0.8	67	84	Habitat tree
common beech (509) Fagus sylvatica	30	0.07	0.8	70	6	Elite tree
common beech (55) Fagus sylvatica	29.9	0.07	0.7	63	0	Elite tree

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
common beech (377) Fagus sylvatica	29.6	0.07	0.7	61	68	Elite tree
common beech (635) Fagus sylvatica	28.6	0.06	0.8	67	26	Elite tree
common beech (502) Fagus sylvatica	28.5	0.06	0.6	53	20	Elite tree
sycamore maple (25) Acer pseudoplatanus	27.9	0.06	0.6	55	52	Elite tree
common beech (544) Fagus sylvatica	26.9	0.06	0.7	61	0	Elite tree
common beech (608) Fagus sylvatica	24.6	0.05	0.5	43	9	Elite tree
common beech (423) Fagus sylvatica	24.5	0.05	0.6	48	18	Elite tree