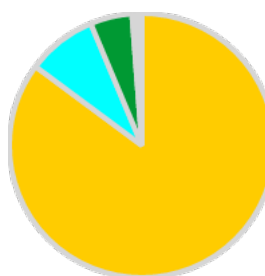


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## Site conditions

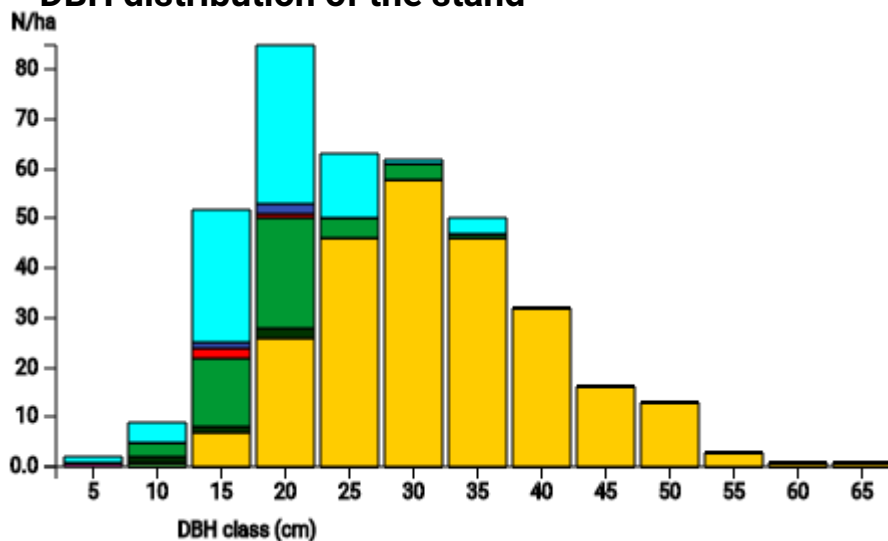
Altitude: 870 m.a.s.l.  
 Geology / Bedrock: Alluvial and mixed beds  
 Soil type: Cambisol – Leptosol with Luvisol of the Central Appenino Mountains.  
 Natural forest community: Aceri obtusati-Quercu cerridis sigmetum  
 Mean annual temperature: 12.4 C;  
 Mean annual precipitation: 1154 mm; Ownership: State-owned Agency "Sala"; Establishment: 2020

## Tree species distribution by volume (in %)



- Turkey oak: 85.1 %
- European hop-hornbeam: 8.5 %
- Italian maple: 5.1 %
- manna ash: 0.6 %
- field maple: 0.3 %
- hornbeam: 0.3 %
- common beech: 0 %
- downy oak: 0 %

## DBH distribution of the stand



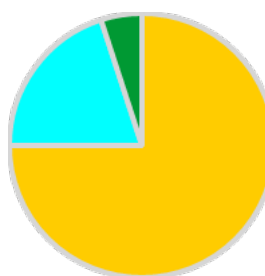
## Initial stand (details by tree species)

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	81	3	34.6	2647	1669	101
Italian maple	47	1.8	20.8	1588	917	65
Turkey oak	249	24.7	346.4	26500	7807	401
common beech	1	0	0.2	16	0	0
downy oak	1	0	0.1	10	0	0
field maple	4	0.1	1.4	104	115	6
hornbeam	3	0.1	1.3	101	24	1
manna ash	3	0.1	2.3	174	38	4
<b>Total</b>	<b>389</b>	<b>29.9</b>	<b>407.1</b>	<b>31140</b>	<b>10570</b>	<b>578</b>

### Removed trees

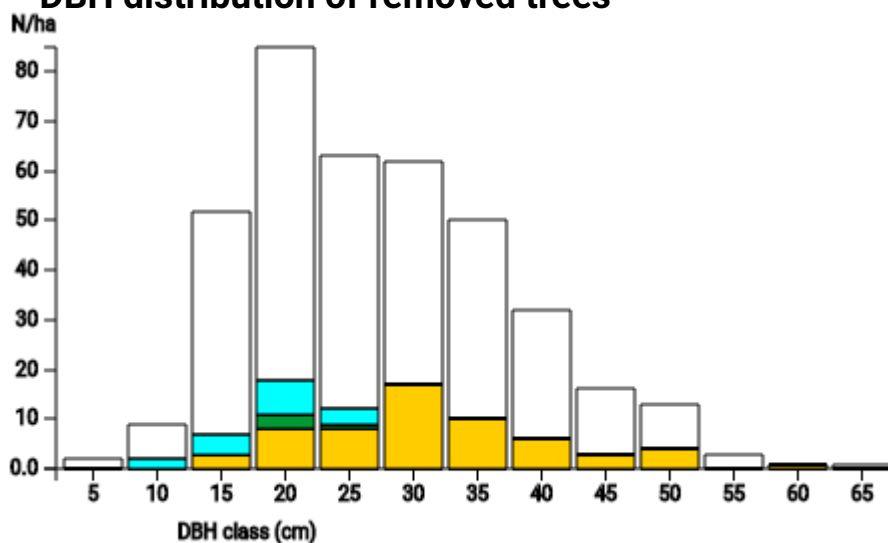
Volume: 88.6 m<sup>3</sup>  
 Basal area: 6.4 m<sup>2</sup>  
 Economic value: 6781 €  
 Habitat value: 1716 pts.

### Removed trees (N in %)



- Turkey oak: 75 %
- European hop-hornbeam: 20 %
- Italian maple: 5 %
- common beech: 0 %
- downy oak: 0 %
- field maple: 0 %
- manna ash: 0 %
- hornbeam: 0 %

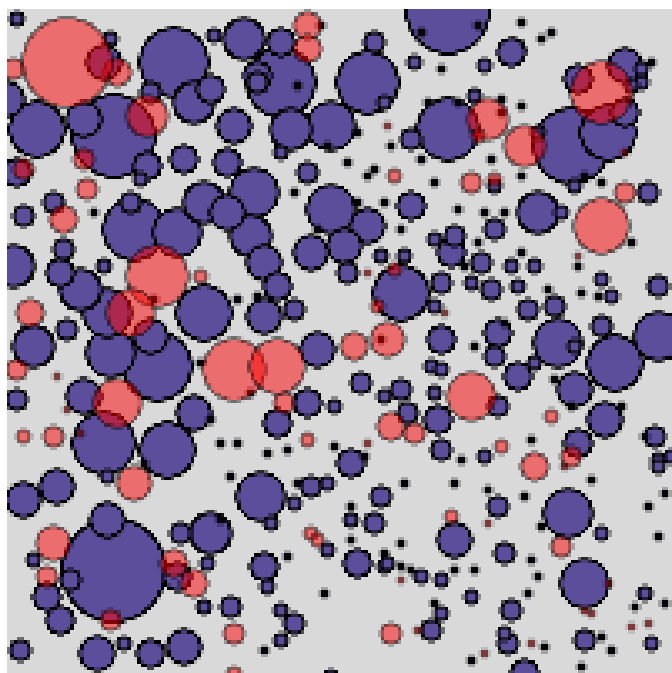
### DBH distribution of removed trees



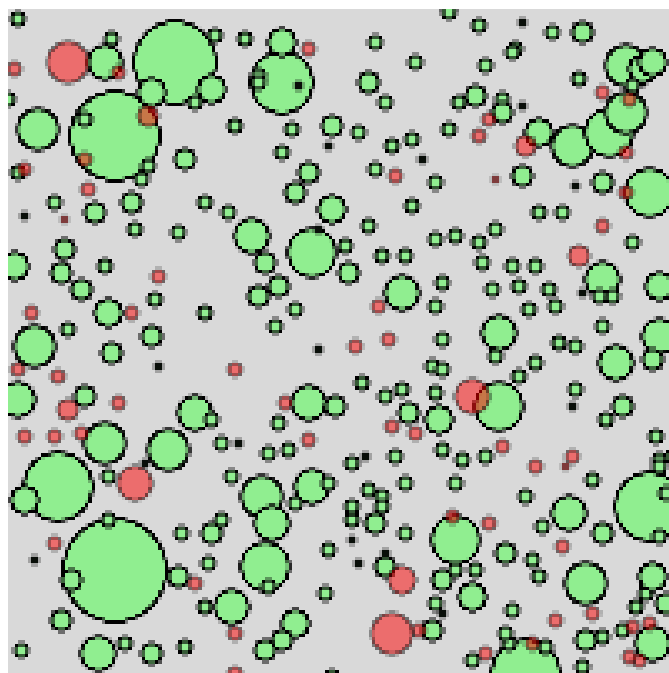
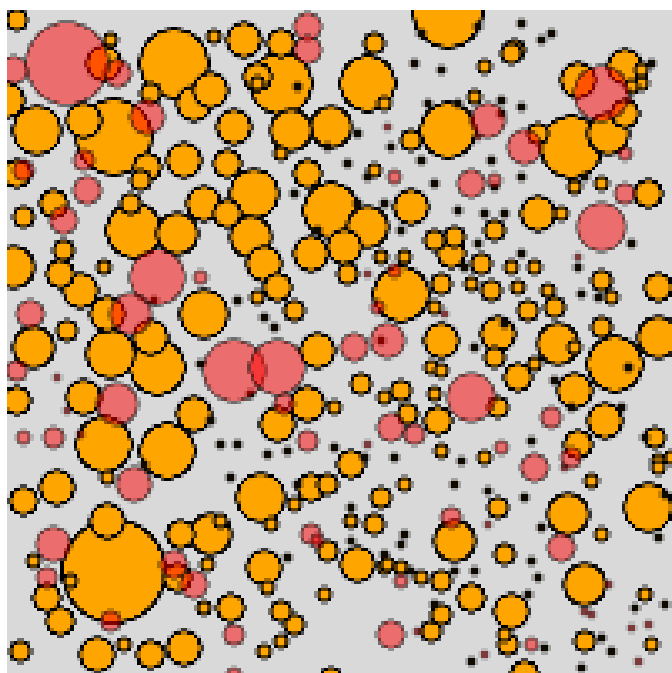
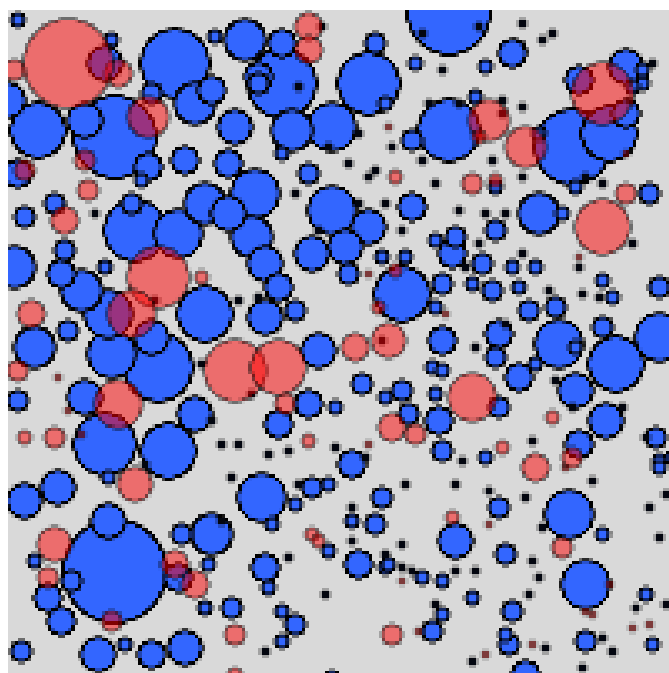
### Removed trees (details by tree species)

Tree species	N/ha	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Microhabitats (N)
European hop-hornbeam	16	0.5	5.6	429	280	18
Italian maple	4	0.2	2.4	185	76	4
Turkey oak	60	5.7	80.6	6167	1360	67
common beech	0	0	0	0	0	0
downy oak	0	0	0	0	0	0
field maple	0	0	0	0	0	0
hornbeam	0	0	0	0	0	0
manna ash	0	0	0	0	0	0
<b>Total</b>	<b>80</b>	<b>6.4</b>	<b>88.6</b>	<b>6781</b>	<b>1716</b>	<b>89</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.

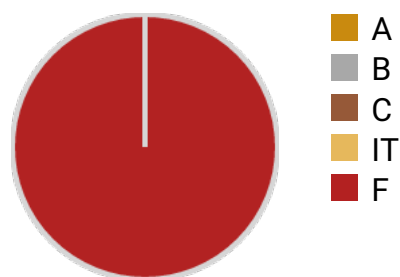
### Economic values

Total value of removed trees: 6781 €  
 Percentage of total stand value: 21.8 %  
 Stand value after harvest: 24359 €

### Economic value by tree species [€]

Tree species	Total	Per m <sup>3</sup>
common beech	0	0
downy oak	0	0
Turkey oak	6167	76
field maple	0	0
Italian maple	185	77
manna ash	0	0
hornbeam	0	0
European hop-hornbeam	429	77
Total	6781	76

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



Quality class	m <sup>3</sup>	%
A	0	0
B	0	0
C	0	0
Industrial Timber	0	0
Fuelwood	88.6	100

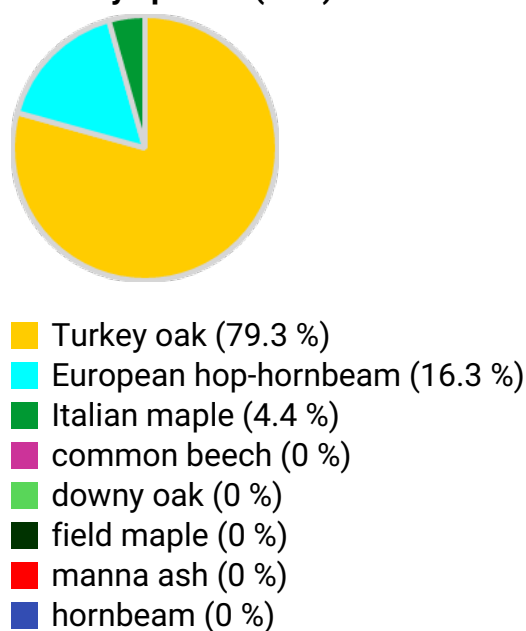
### Habitat values

Total habitat value of removed trees: 1716 pts.  
 Percentage of total stand value: 16.2 %  
 Stand value after harvest: 8854 pts.

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

Tree species	Total	Per m <sup>3</sup>	Microhabitats [N]
common beech	0	0	0
downy oak	0	0	0
Turkey oak	1360	16.9	67
field maple	0	0	0
Italian maple	76	31.4	4
manna ash	0	0	0
hornbeam	0	0	0
European hop-hornbeam	280	50	18
Total	1716	19.4	89

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

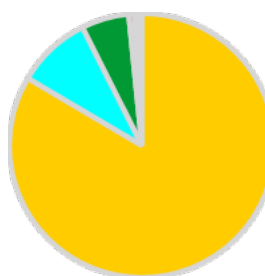




### Remaining stand

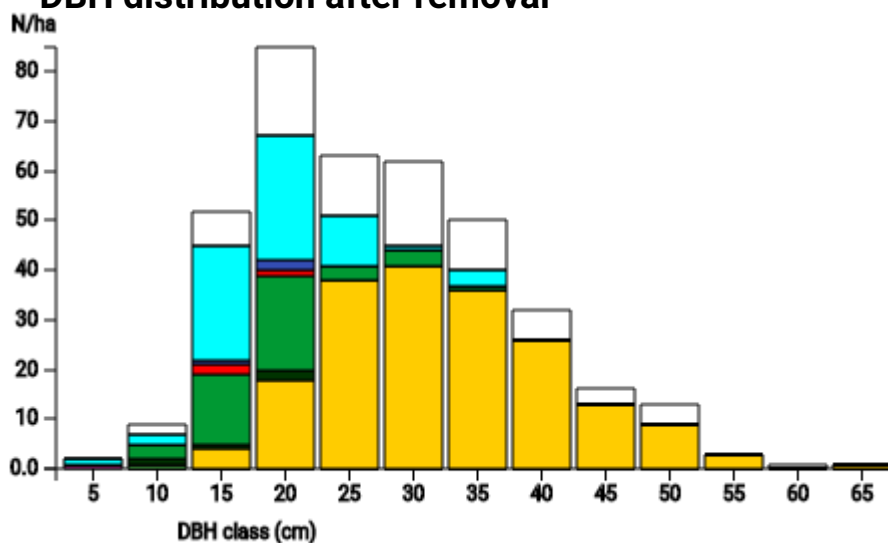
Volume: 318.6 m<sup>3</sup>  
 Basal area: 23.7 m<sup>2</sup>  
 Economic value: 24359 €  
 Habitat value: 8854 pts.

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



- Turkey oak: 83.5 %
- European hop-hornbeam: 9.1 %
- Italian maple: 5.8 %
- manna ash: 0.7 %
- field maple: 0.4 %
- hornbeam: 0.4 %
- common beech: 0.1 %
- downy oak: 0 %

### 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)
European hop-hornbeam	65	2.5	29	2218	1389	83
Italian maple	43	1.6	18.3	1403	841	61
Turkey oak	189	19	265.8	20333	6447	334
common beech	1	0	0.2	16	0	0
downy oak	1	0	0.1	10	0	0
field maple	4	0.1	1.4	104	115	6
hornbeam	3	0.1	1.3	101	24	1
manna ash	3	0.1	2.3	174	38	4
<b>Total</b>	<b>309</b>	<b>23.5</b>	<b>318.4</b>	<b>24359</b>	<b>8854</b>	<b>489</b>

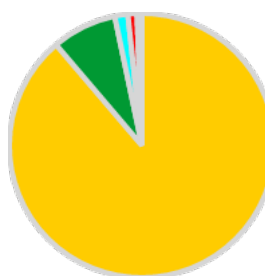
**Retention trees**Volume: 57.2 m<sup>3</sup>

Elite trees: 30

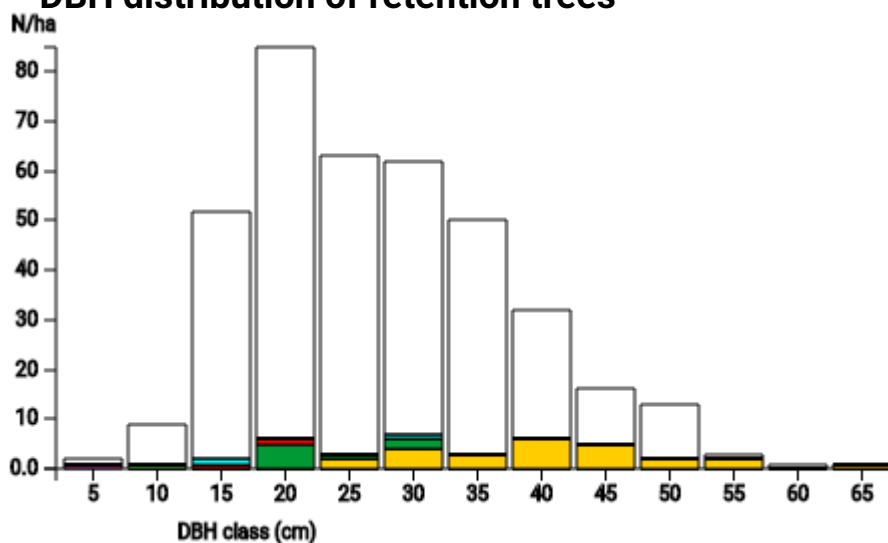
Habitat trees: 2

Economic value: 4379 €

Habitat value: 2199 pts.

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

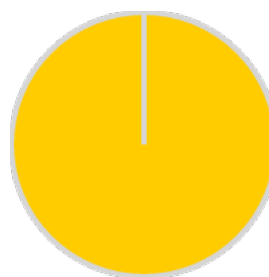
- Turkey oak: 88.8 %
- Italian maple: 7.9 %
- European hop-hornbeam: 1.6 %
- manna ash: 1.1 %
- common beech: 0.4 %
- downy oak: 0.2 %
- field maple: 0 %
- hornbeam: 0 %

**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)
European hop-hornbeam	2	0.1	0.9	70	106	9
Italian maple	8	0.4	4.5	344	235	13
Turkey oak	25	3.7	50.8	3890	1824	99
common beech	1	0	0.2	16	0	0
downy oak	1	0	0.1	10	0	0
field maple	0	0	0	0	0	0
hornbeam	0	0	0	0	0	0
manna ash	2	0.1	0.6	49	34	3
<b>Total</b>	<b>39</b>	<b>4.3</b>	<b>57.2</b>	<b>4379</b>	<b>2199</b>	<b>124</b>

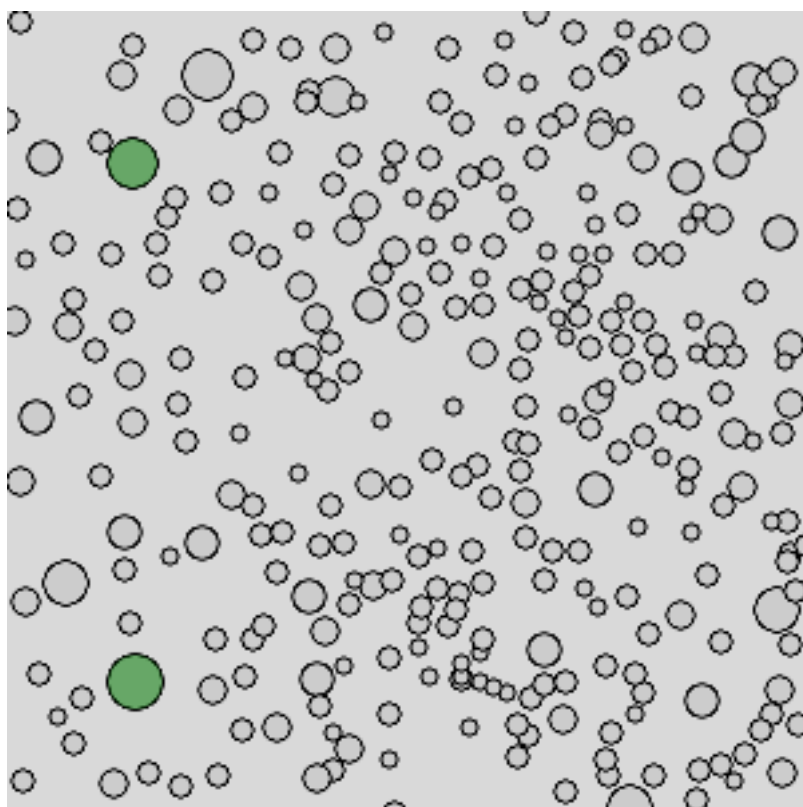
Number of habitat trees	[N]	2
Habitat value	pts.	322
	[% of total]	3
Economic value	[€]	739
	[% of total]	2.4
Number of microhabitats	[N]	27
	[% of total]	4.7

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

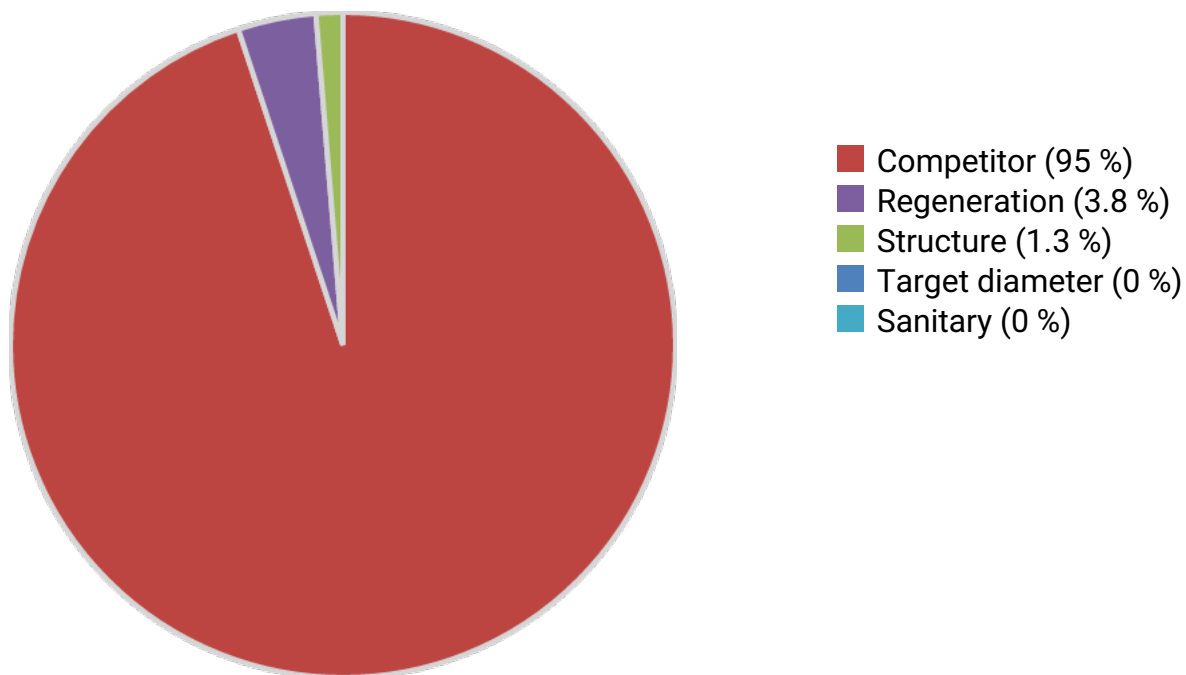


■ Turkey oak: 100 %
■ common beech: 0 %
■ downy oak: 0 %
■ field maple: 0 %
■ Italian maple: 0 %
■ manna ash: 0 %
■ hornbeam: 0 %
■ European hop-hornbeam: 0 %

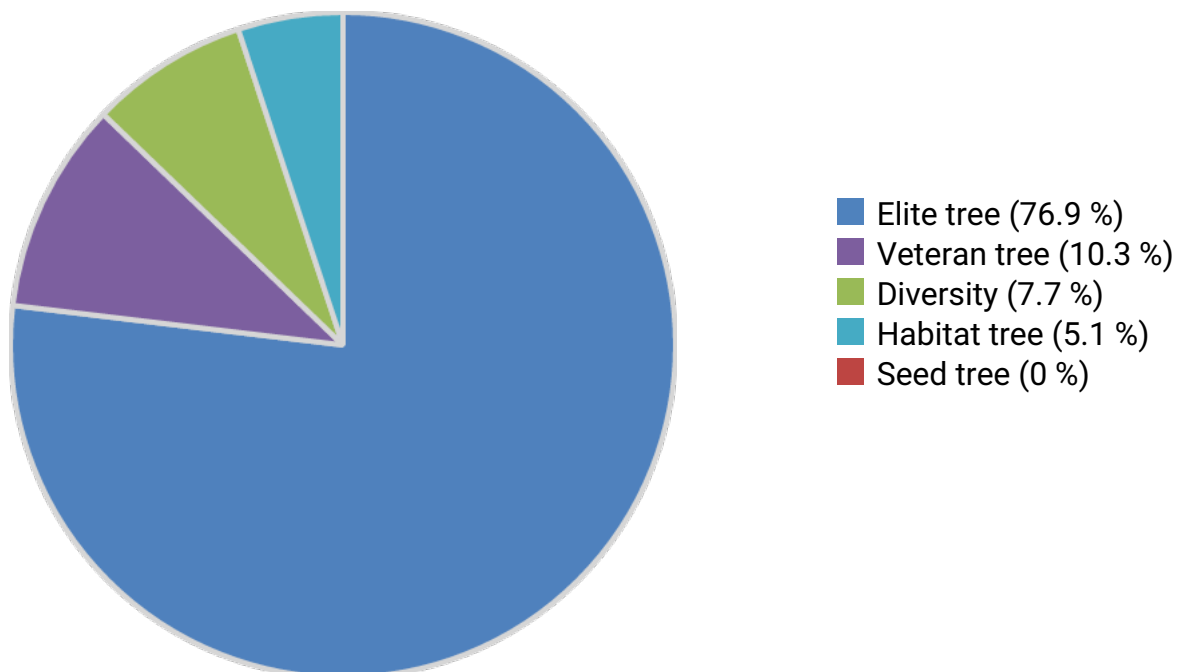
### Spatial distribution of habitat trees



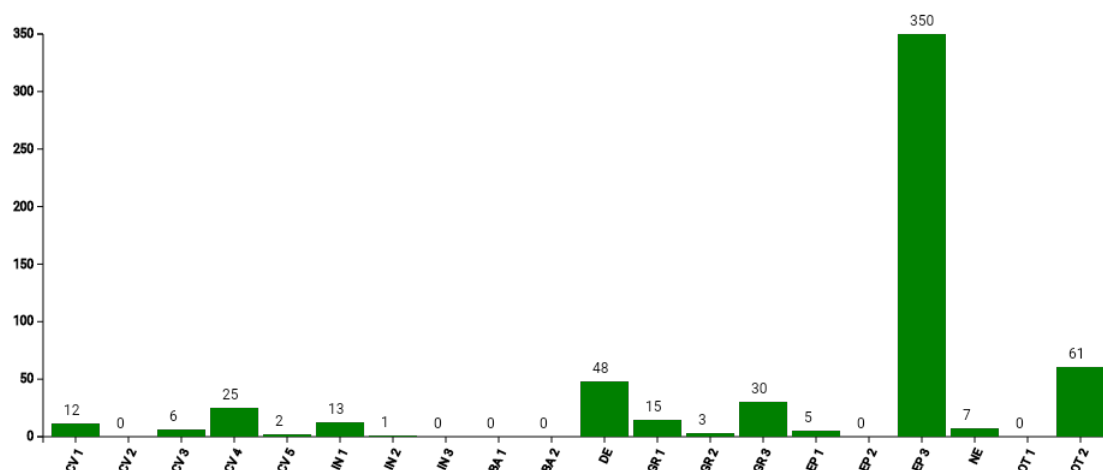
### Reasons for removal



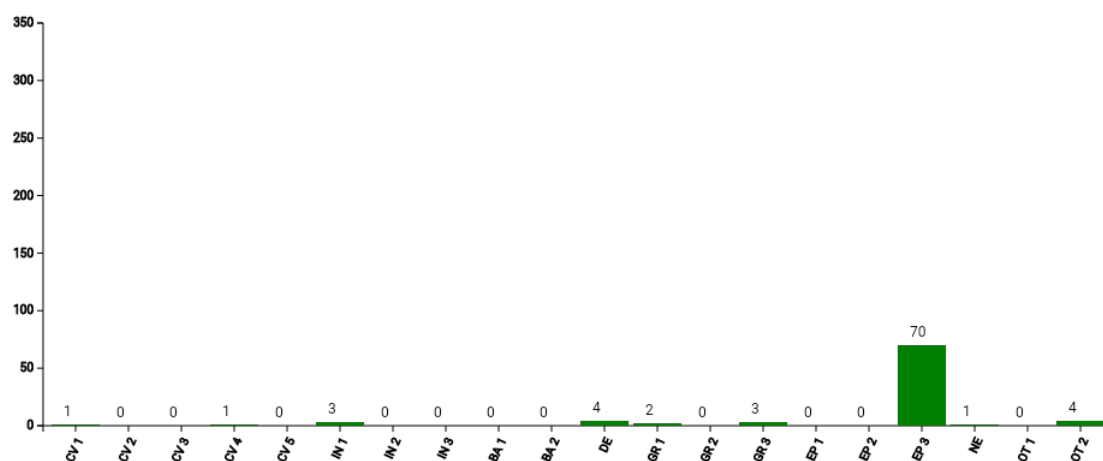
### Reasons for retention



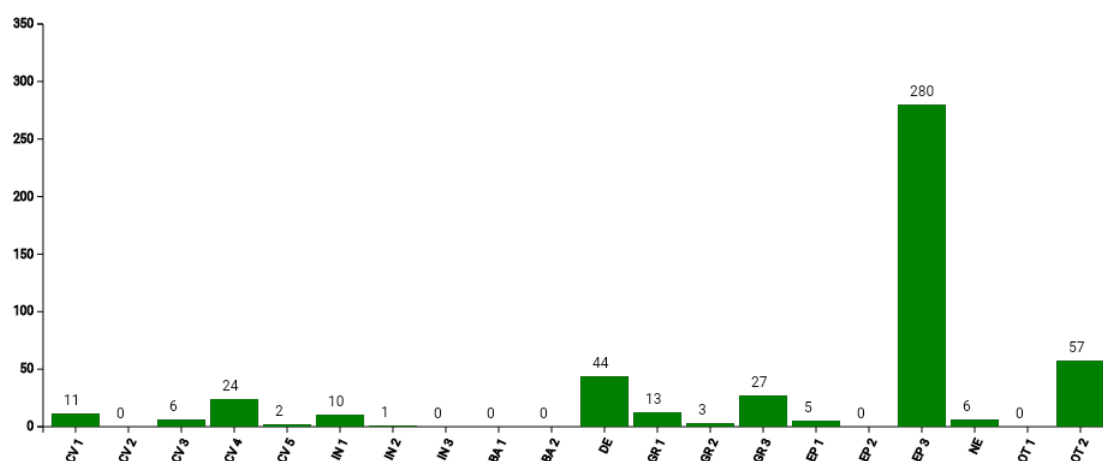
## Distribution of tree microhabitats by code (N total)



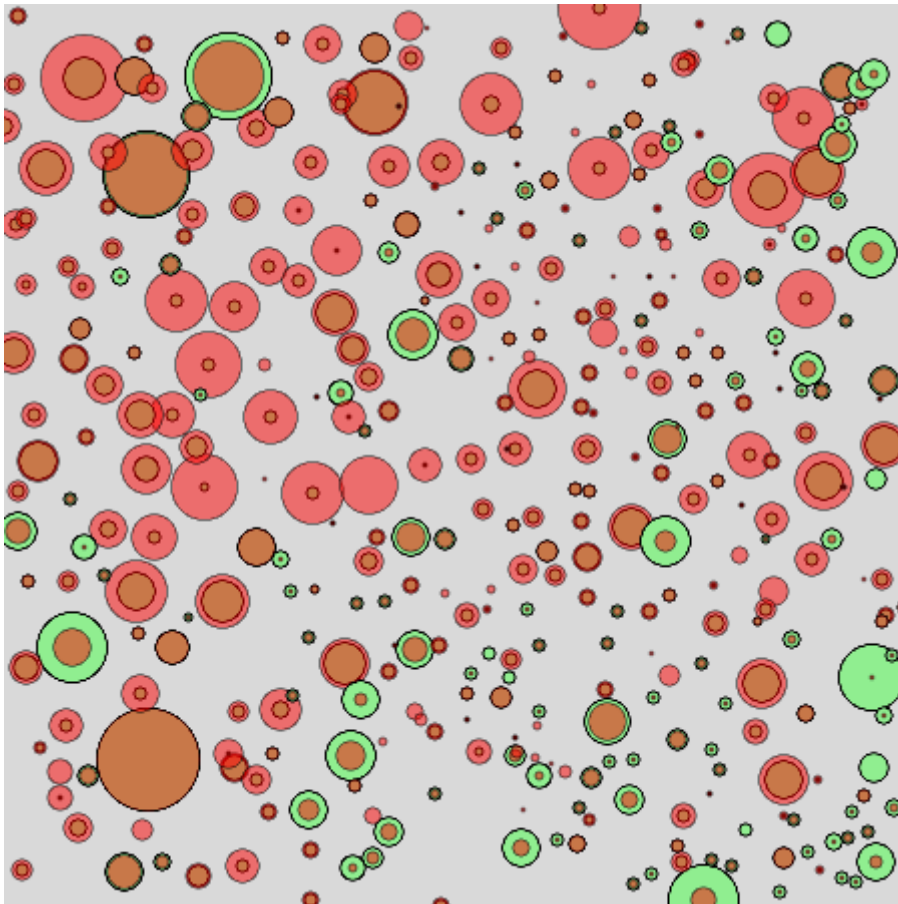
## Removed tree microhabitats by code (N removed)



## 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
Turkey oak (16) Quercus cerris	60	0.28	4.6	351	72	Structure
Turkey oak (78) Quercus cerris	52	0.21	3.1	238	24	Competitor
Turkey oak (57) Quercus cerris	51	0.2	3.4	258	24	Competitor
Turkey oak (306) Quercus cerris	50	0.2	3.2	246	24	Competitor
Turkey oak (77) Quercus cerris	50	0.2	3	232	0	Competitor
Turkey oak (351) Quercus cerris	47	0.17	2.9	224	24	Competitor
Turkey oak (183) Quercus cerris	46	0.17	2.3	179	60	Competitor
Turkey oak (86) Quercus cerris	45	0.16	2.4	183	24	Competitor
Turkey oak (69) Quercus cerris	43	0.15	2.4	184	24	Competitor
Turkey oak (25) Quercus cerris	41.5	0.14	2.1	157	36	Regeneration
Turkey oak (315) Quercus cerris	41	0.13	2	152	24	Competitor
Turkey oak (158) Quercus cerris	40	0.13	1.7	126	24	Competitor
Turkey oak (324) Quercus cerris	40	0.13	2	151	36	Competitor
Turkey oak (119) Quercus cerris	40	0.13	1.6	126	24	Competitor
Turkey oak (108) Quercus cerris	39.5	0.12	1.8	134	54	Competitor
Turkey oak (130) Quercus cerris	37	0.11	1.6	119	24	Competitor
Turkey oak (38) Quercus cerris	36	0.1	1.1	81	24	Competitor
Turkey oak (6) Quercus cerris	36	0.1	1.4	111	0	Competitor
Turkey oak (132) Quercus cerris	36	0.1	1.5	111	4	Competitor
Turkey oak (8) Quercus cerris	35.5	0.1	1.3	98	24	Competitor

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (67) Quercus cerris	35.5	0.1	1.4	106	24	Competitor
Turkey oak (203) Quercus cerris	35.5	0.1	1.4	105	28	Competitor
Turkey oak (169) Quercus cerris	35	0.1	1.6	122	24	Competitor
Turkey oak (188) Quercus cerris	34.5	0.09	1.4	109	24	Competitor
Turkey oak (226) Quercus cerris	34.5	0.09	1.2	94	24	Competitor
Turkey oak (284) Quercus cerris	34.5	0.09	1	73	66	Competitor
Turkey oak (337) Quercus cerris	34	0.09	1.1	87	0	Competitor
Turkey oak (17) Quercus cerris	34	0.09	1.2	90	24	Competitor
Turkey oak (42) Quercus cerris	34	0.09	1.3	98	12	Competitor
Turkey oak (134) Quercus cerris	33	0.09	1.2	94	0	Competitor
Turkey oak (83) Quercus cerris	32	0.08	1.1	87	24	Competitor
Turkey oak (106) Quercus cerris	32	0.08	1.1	81	24	Competitor
Turkey oak (29) Quercus cerris	32	0.08	1	79	24	Competitor
Turkey oak (138) Quercus cerris	31.5	0.08	1.1	86	0	Competitor
Turkey oak (124) Quercus cerris	31.5	0.08	0.9	65	0	Competitor
Turkey oak (181) Quercus cerris	31	0.08	0.9	68	0	Competitor
Turkey oak (194) Quercus cerris	30	0.07	1.1	82	24	Competitor
Turkey oak (147) Quercus cerris	30	0.07	0.9	71	24	Competitor
Turkey oak (190) Quercus cerris	30	0.07	1	78	24	Competitor
Turkey oak (30) Quercus cerris	30	0.07	0.9	69	24	Competitor



Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (224) Quercus cerris	29.5	0.07	0.8	63	24	Competitor
Italian maple (330) Acer opalus	29.5	0.07	1	73	24	Competitor
Turkey oak (91) Quercus cerris	29	0.07	1	74	24	Competitor
Turkey oak (95) Quercus cerris	29	0.07	0.9	68	24	Competitor
Turkey oak (339) Quercus cerris	28	0.06	0.8	60	24	Competitor
Turkey oak (152) Quercus cerris	28	0.06	0.9	68	24	Competitor
Turkey oak (383) Quercus cerris	27.5	0.06	0.8	60	24	Competitor
Turkey oak (105) Quercus cerris	27	0.06	0.7	53	24	Competitor
European hop-hornbeam (336) Ostrya carpinifolia	26.5	0.06	0.6	47	14	Competitor
European hop-hornbeam (58) Ostrya carpinifolia	26	0.05	0.6	45	0	Competitor
Turkey oak (125) Quercus cerris	26	0.05	0.7	53	0	Competitor
European hop-hornbeam (192) Ostrya carpinifolia	25	0.05	0.6	44	24	Competitor
Turkey oak (365) Quercus cerris	24.5	0.05	0.6	46	0	Competitor
Turkey oak (260) Quercus cerris	24	0.05	0.5	41	44	Competitor
European hop-hornbeam (328) Ostrya carpinifolia	24	0.05	0.5	40	28	Competitor
Italian maple (273) Acer opalus	23.5	0.04	0.5	36	24	Competitor
Italian maple (316) Acer opalus	23	0.04	0.6	45	24	Regeneration
Turkey oak (84) Quercus cerris	23	0.04	0.5	36	24	Competitor
European hop-hornbeam (207) Ostrya carpinifolia	23	0.04	0.4	33	3	Competitor
Turkey oak (102) Quercus cerris	23	0.04	0.5	38	24	Competitor

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
Acer opalus						
Turkey oak (202) Quercus cerris	22.5	0.04	0.5	41	12	Competitor
European hop-hornbeam (246) Ostrya carpinifolia	21.5	0.04	0.5	35	24	Competitor
Turkey oak (386) Quercus cerris	21	0.04	0.4	29	4	Competitor
Turkey oak (277) Quercus cerris	21	0.04	0.3	21	24	Competitor
European hop-hornbeam (248) Ostrya carpinifolia	21	0.04	0.4	29	24	Competitor
European hop-hornbeam (231) Ostrya carpinifolia	20.5	0.03	0.3	26	4	Competitor
Turkey oak (280) Quercus cerris	20.5	0.03	0.3	24	24	Competitor
European hop-hornbeam (247) Ostrya carpinifolia	20	0.03	0.3	26	24	Competitor
European hop-hornbeam (225) Ostrya carpinifolia	20	0.03	0.3	24	24	Competitor
Turkey oak (363) Quercus cerris	18.5	0.03	0.3	25	0	Competitor
Turkey oak (103) Quercus cerris	18	0.03	0.3	22	40	Competitor
European hop-hornbeam (319) Ostrya carpinifolia	18	0.03	0.3	25	4	Competitor
Turkey oak (312) Quercus cerris	18	0.03	0.2	19	28	Competitor
European hop-hornbeam (269) Ostrya carpinifolia	17	0.02	0.2	14	24	Competitor
European hop-hornbeam (353) Ostrya carpinifolia	16.5	0.02	0.2	15	31	Competitor
European hop-hornbeam (270) Ostrya carpinifolia	15	0.02	0.1	10	24	Competitor
European hop-hornbeam (268) Ostrya carpinifolia	13.5	0.01	0.1	9	4	Competitor
European hop-hornbeam (250) Ostrya carpinifolia	12	0.01	0.1	6	24	Competitor

## Retention trees

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
Turkey oak (133) Quercus cerris	68	0.36	5.4	409	174	Habitat tree
Turkey oak (26) Quercus cerris	57.5	0.26	4.3	329	148	Habitat tree
Turkey oak (13) Quercus cerris	56.5	0.25	3.7	281	144	Elite tree
Turkey oak (384) Quercus cerris	51	0.2	3	229	60	Elite tree
Turkey oak (100) Quercus cerris	50	0.2	2.9	219	69	Elite tree
Turkey oak (213) [REPLACE_DEAD]Quercus cerris	47.5	0.18	0.3	22	114	Veteran tree
Turkey oak (28) Quercus cerris	46.5	0.17	2.7	205	66	Elite tree
Turkey oak (232) Quercus cerris	45	0.16	2.5	192	64	Elite tree
Turkey oak (327) Quercus cerris	45	0.16	2.7	208	76	Elite tree
Turkey oak (82) Quercus cerris	45	0.16	2.2	169	64	Elite tree
Turkey oak (54) Quercus cerris	44	0.15	2.1	160	46	Elite tree
Turkey oak (236) Quercus cerris	43	0.15	1.9	143	78	Elite tree
Turkey oak (15) Quercus cerris	41.5	0.14	1.9	142	60	Diversity
Turkey oak (117) Quercus cerris	41	0.13	1.9	147	121	Veteran tree
Turkey oak (92) Quercus cerris	41	0.13	1.6	122	60	Elite tree
Turkey oak (150) Quercus cerris	40	0.13	1.8	139	60	Elite tree
Turkey oak (148) Quercus cerris	39	0.12	1.8	137	24	Elite tree
Turkey oak (131) Quercus cerris	37	0.11	1.5	116	40	Elite tree
Turkey oak (282) Quercus cerris	35.5	0.1	1.3	99	116	Elite tree
Italian maple (329) Acer opalus	34	0.09	1.1	85	84	Elite tree
Turkey oak (182)	33.5	0.09	1.2	90	81	Elite tree

Tree	DBH (cm)	Basal area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Economic value (€)	Habitat value (pts.)	Reason
Quercus cerris						
Turkey oak (151) Quercus cerris	32	0.08	1.2	89	24	Diversity
European hop-hornbeam (373) Ostrya carpinifolia	32	0.08	0.9	66	58	Elite tree
Turkey oak (189) Quercus cerris	31.5	0.08	1.1	81	36	Elite tree
Turkey oak (126) Quercus cerris	30.5	0.07	0.8	60	24	Elite tree
Italian maple (318) Acer opalus	30	0.07	0.9	71	27	Elite tree
Turkey oak (140) Quercus cerris	28.5	0.06	1	74	35	Diversity
Italian maple (267) Acer opalus	28	0.06	0.7	52	60	Elite tree
Turkey oak (153) [REPLACE_DEAD]Quercus cerris	25.5	0.05	0.4	29	40	Veteran tree
Italian maple (201) Acer opalus	24	0.05	0.5	37	28	Elite tree
Italian maple (89) Acer opalus	22	0.04	0.3	23	4	Elite tree
Italian maple (193) Acer opalus	21.5	0.04	0.4	29	4	Elite tree
Italian maple (157) Acer opalus	21.5	0.04	0.3	24	4	Elite tree
Italian maple (65) Acer opalus	21	0.04	0.3	24	24	Elite tree
mannan ash (323) Fraxinus ornus	20.5	0.03	0.4	34	4	Elite tree
mannan ash (43) Fraxinus ornus	15	0.02	0.2	16	30	Elite tree
European hop-hornbeam (227) [REPLACE_DEAD]Ostrya carpinifolia	15	0.02	0	4	48	Veteran tree
downy oak (276) Quercus pubescens	13.5	0.01	0.1	10	0	Elite tree
common beech (7) Fagus sylvatica	9	0.01	0.2	16	0	Elite tree