

Table 1 Suppl. Meteorological conditions during the sampling of *T. baccata* needles. The period from May of the current year to April of the following year was assumed as a season. Means  $\pm$  SE.

Season	Temperature [ $^{\circ}$ C]			Precipitation [mm]	
	mean	maximum	minimum	mean	sum
2013/14	10.52 $\pm$ 0.379	20.41 $\pm$ 0.456	3.09 $\pm$ 0.353	13.71 $\pm$ 1.055	718.4
2014/15	10.35 $\pm$ 0.378	19.85 $\pm$ 0.439	3.31 $\pm$ 0.366	14.47 $\pm$ 0.826	763.3
2015/16	10.77 $\pm$ 0.396	20.73 $\pm$ 0.480	2.87 $\pm$ 0.370	14.35 $\pm$ 0.820	748.8

Table 2 Suppl. Pearson's correlations coefficients between the content of dry mass, total free amino acids, soluble and insoluble proteins, and soluble and insoluble carbohydrates in *T. baccata* male (M) and female (F) needles of three age classes (0, 1, and 2) and meteorological conditions: the mean daily temperature on 7 d preceding the day of collection of plant material, the minimum and maximum temperature, and the total precipitation on 7 d before each date of sample collection. M - male individuals, F - female individuals, d.m. - dry mass, asterisk (\*) indicate  $p < 0.05$ .

	Gender	Needle age	Temperature max	mean	min	Sum of precipitation
Dry mass [% of f.m.]	F	0	-0.478	-0.676 *	-0.776 *	-0.094
		1	-0.241	-0.339	-0.346	0.191
		2	-0.083	-0.151	-0.163	-0.030
	M	0	-0.415	-0.619 *	-0.720 *	0.014
		1	-0.261	-0.370	-0.371	0.145
		2	-0.117	-0.184	-0.195	0.016
Soluble proteins [mg g <sup>-1</sup> (d.m.)]	F	0	-0.634 *	-0.480	-0.401	-0.399
		1	-0.638 *	-0.740 *	-0.756 *	-0.290
		2	-0.431 *	-0.366	-0.401	-0.069
	M	0	-0.297	-0.302	-0.285	-0.637 *
		1	-0.738 *	-0.760 *	-0.711 *	-0.368
		2	-0.418	-0.435 *	-0.493 *	-0.108
Insoluble proteins [mg g <sup>-1</sup> (d.m.)]	F	0	0.355	0.448	0.534	-0.032
		1	-0.267	-0.333	-0.357	-0.116
		2	-0.021	0.077	0.048	-0.192
	M	0	0.084	0.061	0.110	-0.318
		1	-0.167	-0.104	-0.054	0.022
		2	-0.256	-0.224	-0.265	-0.102
Free amino acids [mg g <sup>-1</sup> (d.m.)]	F	0	0.512	0.449	0.477	0.331
		1	0.440 *	0.358	0.314	0.542 *
		2	0.113	0.081	0.028	0.457 *
	M	0	0.235	0.024	-0.046	0.085
		1	0.354	0.238	0.188	0.387
		2	-0.073	-0.118	-0.194	0.281
Soluble carbohydrates [mg g <sup>-1</sup> (d.m.)]	F	0	-0.635 *	-0.632 *	-0.616 *	-0.040
		1	-0.438 *	-0.478 *	-0.501 *	-0.067
		2	-0.300	-0.257	-0.291	0.008
	M	0	-0.752 *	-0.692 *	-0.632 *	-0.018
		1	-0.499 *	-0.410	-0.329	-0.170
		2	0.012	0.049	0.011	-0.143
Insoluble carbohydrates [mg g <sup>-1</sup> (d.m.)]	F	0	0.432	0.322	0.212	0.342
		1	0.293	0.271	0.249	0.257
		2	0.204	0.175	0.226	0.099
	M	0	0.406	0.257	0.172	0.608 *
		1	0.237	0.192	0.182	0.205
		2	0.244	0.213	0.248	0.004

Table 3 Suppl. The long term mean content ( $\pm$  SE) of dry mass, total free amino acids, soluble and insoluble proteins, and soluble and insoluble carbohydrates in male (M) and female (F) *T. baccata* needles of three age classes (0, 1, and 2). The means with the same letters are not significantly different ( $P > 0.05$ ) by gender (*lowercase letters*) or by needle age (*uppercase letters*).

	Gender	Needle age			
		0	1	2	all
Dry mass [% of f.m.]	M	33.05 $\pm$ 0.815 <sup>aA</sup>	35.16 $\pm$ 0.437 <sup>aA</sup>	35.40 $\pm$ 0.401 <sup>aA</sup>	34.75 $\pm$ 0.301 <sup>a</sup>
	F	32.02 $\pm$ 0.747 <sup>aB</sup>	35.33 $\pm$ 0.384 <sup>aA</sup>	35.37 $\pm$ 0.400 <sup>aA</sup>	34.57 $\pm$ 0.286 <sup>a</sup>
	Mean	32.53 $\pm$ 0.553 <sup>B</sup>	35.24 $\pm$ 0.290 <sup>A</sup>	35.39 $\pm$ 0.283 <sup>A</sup>	34.66 $\pm$ 0.207
Soluble proteins [mg g <sup>-1</sup> (d.m.)]	M	11.33 $\pm$ 0.428 <sup>aA</sup>	10.93 $\pm$ 0.296 <sup>aA</sup>	10.37 $\pm$ 0.256 <sup>aA</sup>	10.82 $\pm$ 0.182 <sup>a</sup>
	F	11.94 $\pm$ 0.535 <sup>aA</sup>	10.51 $\pm$ 0.337 <sup>aA</sup>	10.83 $\pm$ 0.326 <sup>aA</sup>	10.96 $\pm$ 0.221 <sup>a</sup>
	Mean	11.63 $\pm$ 0.343 <sup>A</sup>	10.72 $\pm$ 0.224 <sup>A</sup>	10.60 $\pm$ 0.207 <sup>B</sup>	10.89 $\pm$ 0.143
Insoluble proteins [mg g <sup>-1</sup> (d.m.)]	M	4.86 $\pm$ 0.184 <sup>aA</sup>	4.67 $\pm$ 0.101 <sup>aA</sup>	4.52 $\pm$ 0.099 <sup>aA</sup>	4.66 $\pm$ 0.069 <sup>a</sup>
	F	4.97 $\pm$ 0.166 <sup>aA</sup>	4.78 $\pm$ 0.121 <sup>aA</sup>	4.87 $\pm$ 0.138 <sup>aA</sup>	4.86 $\pm$ 0.080 <sup>a</sup>
	Mean	4.91 $\pm$ 0.124 <sup>A</sup>	4.73 $\pm$ 0.079 <sup>A</sup>	4.69 $\pm$ 0.085 <sup>A</sup>	4.76 $\pm$ 0.053
Free amino acids [mg g <sup>-1</sup> (d.m.)]	M	1.63 $\pm$ 0.103 <sup>aA</sup>	1.75 $\pm$ 0.063 <sup>aA</sup>	2.03 $\pm$ 0.116 <sup>aA</sup>	1.82 $\pm$ 0.056 <sup>a</sup>
	F	1.64 $\pm$ 0.130 <sup>aA</sup>	1.73 $\pm$ 0.084 <sup>aA</sup>	1.74 $\pm$ 0.080 <sup>aA</sup>	1.71 $\pm$ 0.054 <sup>a</sup>
	Mean	1.63 $\pm$ 0.083 <sup>B</sup>	1.74 $\pm$ 0.053 <sup>B</sup>	1.88 $\pm$ 0.071 <sup>A</sup>	1.77 $\pm$ 0.039
Soluble carbohydrates [mg g <sup>-1</sup> (d.m.)]	M	57.84 $\pm$ 2.474 <sup>aB</sup>	71.18 $\pm$ 1.659 <sup>aA</sup>	77.85 $\pm$ 2.325 <sup>aA</sup>	70.51 $\pm$ 1.297 <sup>a</sup>
	F	58.13 $\pm$ 3.314 <sup>aB</sup>	76.36 $\pm$ 2.488 <sup>aA</sup>	80.47 $\pm$ 3.070 <sup>aA</sup>	73.62 $\pm$ 1.758 <sup>a</sup>
	Mean	57.98 $\pm$ 2.060 <sup>B</sup>	73.77 $\pm$ 1.502 <sup>A</sup>	79.16 $\pm$ 1.923 <sup>A</sup>	72.06 $\pm$ 1.090
Insoluble carbohydrates [mg g <sup>-1</sup> (d.m.)]	M	88.30 $\pm$ 10.008 <sup>aA</sup>	75.41 $\pm$ 9.324 <sup>aA</sup>	86.41 $\pm$ 8.844 <sup>aA</sup>	82.45 $\pm$ 5.459 <sup>a</sup>
	F	66.90 $\pm$ 8.476 <sup>aA</sup>	54.91 $\pm$ 9.467 <sup>aA</sup>	68.10 $\pm$ 8.632 <sup>aA</sup>	62.54 $\pm$ 5.313 <sup>b</sup>
	Mean	77.60 $\pm$ 6.597 <sup>A</sup>	65.16 $\pm$ 6.663 <sup>A</sup>	77.26 $\pm$ 6.196 <sup>A</sup>	72.50 $\pm$ 3.827

Table 4 Suppl. The number of biochemical parameters for which male and female yews differ statistically in terms of mean values for a given trait in individual months of needle life. Number of all tested parameters (max number) = 6. Values in bold > 3.

Year	Month	Month											
		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
0	1-12	<b>5</b>	<b>5</b>	2	1	<b>4</b>	2	1	3	3	0	<b>4</b>	3
1	13-24	2	2	2	2	1	1	1	2	1	2	<b>6</b>	3
2	25-36	2	2	1	<b>4</b>	2	2	3	3	3	3	<b>4</b>	3