

Figure S1. The design of the experiment and analyzed parameters.

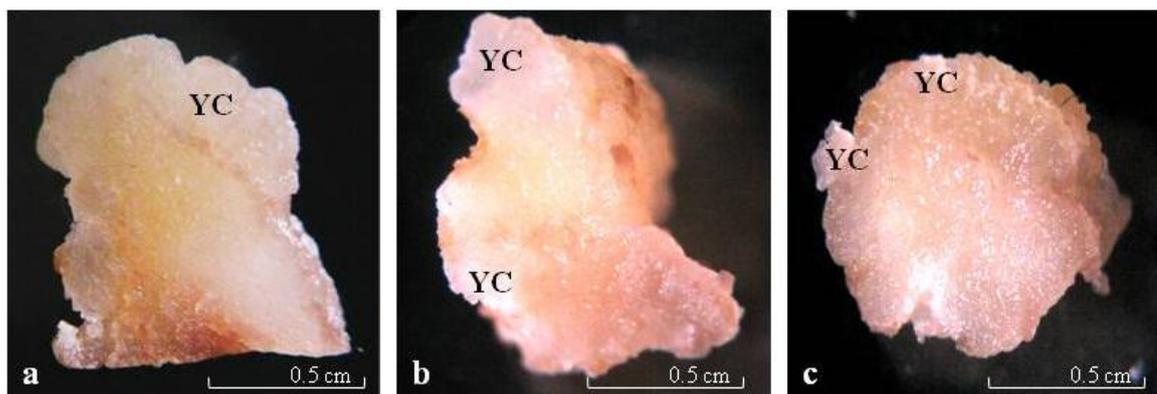


Figure S2. Lateral sections of tea callus calluses grown under different light intensity: 50 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ (a); 75 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ (b) и 100 $\mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$ (c). Duration of light exposure – 20 days. Symbol: YC -young cells.

Table S1. Two-way ANOVA showing the effect of intensity and duration of light exposure and their interaction on water, different phenolic compounds, malondialdehyde, total carbohydrates, chlorophyll *a* and *b* contents in tea callus cultures.

Variable and source of variation	df	F	P	Variable and source of variation	df	F	P
<i>Water content</i>				<i>Malondialdehyde content</i>			
<i>Light intensity</i>	2	1.030	0.372	<i>Light intensity</i>	2	0.010	0.990
<i>Duration of light exposure</i>	3	2.370	0.096	<i>Duration of light exposure</i>	3	2.406	0.092
<i>Light intensity</i> × <i>duration of light exposure</i>	6	2.000	0.105	<i>Light intensity</i> × <i>duration of light exposure</i>	6	1.795	0.143
<i>Total phenolic content</i>				<i>Total carbohydrates content</i>			
<i>Light intensity</i>	2	1.844	0.171	<i>Light intensity</i>	2	3.647	0.035
<i>Duration of light exposure</i>	3	31.176	<0.001	<i>Duration of light exposure</i>	3	18.722	<0.001
<i>Light intensity</i> × <i>duration of light exposure</i>	6	4.623	0.001	<i>Light intensity</i> × <i>duration of light exposure</i>	6	6.147	<0.001
<i>Phenylpropanoids content</i>				<i>Relative chlorophyll a content</i>			
<i>Light intensity</i>	2	8.002	0.001	<i>Light intensity</i>	2	22.830	<0.001
<i>Duration of light exposure</i>	3	192.165	<0.001	<i>Duration of light exposure</i>	3	303.518	<0.001
<i>Light intensity</i> × <i>duration of light exposure</i>	6	10.779	<0.001	<i>Light intensity</i> × <i>duration of light exposure</i>	6	7.118	<0.001
<i>Flavans content</i>				<i>Relative chlorophyll b content</i>			
<i>Light intensity</i>	2	0.415	0.663	<i>Light intensity</i>	2	13.410	<0.001
<i>Duration of light exposure</i>	3	21.755	<0.001	<i>Duration of light exposure</i>	3	302.171	<0.001
<i>Light intensity</i> × <i>duration of light exposure</i>	6	4.755	<0.001	<i>Light intensity</i> × <i>duration of light exposure</i>	6	3.950	0.003
<i>Proanthocyanidins content</i>							
<i>Light intensity</i>	2	0.629	0.538				
<i>Duration of light exposure</i>	3	27.285	<0.001				
<i>Light intensity</i> × <i>duration of light exposure</i>	6	9.803	<0.001				