plants

MDPI

Supplementary Material

Clonal propagation and assessment of biomass production and saponin content of elite accessions of wild *Paris polyphylla* var. *yunnanensis*

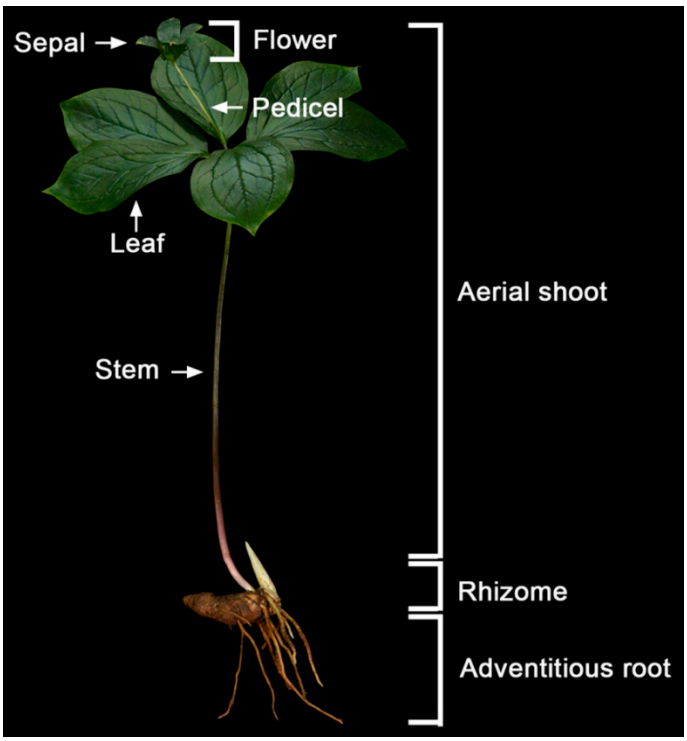

Figure S1. Structure of *P. polyphylla* of 5 years.

Table S1. The effect of filter paper on SE induction frequency.

	Medium	Filter paper + medium
Number of somatic embryos	9.00 ± 3.56	63.10 ± 31.10*

Note: Values are means ± SD (n = 10). Asterisk above the values indicate significant differences ($P \leq 0.05$) between different treatments.

Table S2. Rate of plantlets sprouting, nonsprouting and death (%). $n = 300$.

Sprouting rate	Nonsprouting rate	Death rate
73.9%	20.5%	5.6%

Table S3. Polyphyllins contents in rhizomes and adventitious roots (mg g^{-1} dw) of *P. polyphylla* in different harvest times (1, 2, 3, 4 and 5 years old).

Year after transplanting	Rhizomes			Total content of rhizome	Adventitious roots	Total content
	PPI	PPII	PPVII		PPVII	
1	0.18 ± 0.18^{a}	0.33 ± 0.11^{a}	0.17 ± 0.13^{a}	0.68 ± 0.23^{a}	6.93 ± 1.24^{c}	7.61 ± 1.07^{b}
2	0.44 ± 0.39^{a}	0.44 ± 0.43^{a}	0.03 ± 0.02^{a}	0.90 ± 0.81^{a}	3.35 ± 0.31^{b}	4.25 ± 0.92^{a}
3	1.29 ± 0.17^{ab}	1.39 ± 0.19^{c}	0.19 ± 0.04^{ab}	2.87 ± 0.39^{b}	2.73 ± 0.75^{b}	5.60 ± 1.03^{a}
4	2.08 ± 1.36^{b}	0.91 ± 0.48^{b}	0.43 ± 0.39^{c}	3.42 ± 1.62^{b}	1.01 ± 0.25^{a}	4.43 ± 1.77^{a}
5	5.39 ± 1.15^{c}	2.27 ± 0.39^{d}	0.92 ± 0.12^{c}	8.57 ± 1.17^{c}	1.26 ± 0.27^{a}	9.83 ± 1.42^{c}

Note: Values are means ± SD ($n = 5$). Different letters above the values indicate significant differences ($P \leq 0.05$) between different treatments.

Table S4. PPI, PPII and PPVII content in rhizomes and adventitious roots (mg g^{-1} dw) of MD, N1, LC and SL in 5 years.

Accession	Rhizomes			Total content of rhizome	Adventitious roots	Total content
	PPI	PPII	PPVII		PPVII	
MD	9.23 ± 2.64^{c}	6.64 ± 1.46^{b}	1.37 ± 0.42^{c}	17.36 ± 4.02^{c}	1.63 ± 0.21^{a}	18.99 ± 3.99^{c}
N1	5.39 ± 1.15^{b}	2.27 ± 0.39^{a}	0.92 ± 0.12^{b}	8.57 ± 1.17^{a}	1.26 ± 0.27^{a}	9.83 ± 1.42^{a}
SL	2.68 ± 0.38^{a}	1.57 ± 0.35^{a}	0.27 ± 0.37^{a}	4.50 ± 1.02^{a}	2.80 ± 0.85^{b}	7.31 ± 1.37^{a}
LC	5.80 ± 0.43^{b}	6.61 ± 1.46^{b}	0.81 ± 0.00^{b}	13.07 ± 1.91^{b}	2.00 ± 0.63^{ab}	15.07 ± 2.47^{b}

Note: Values are means ± SD ($n = 5$). Different letters above the values indicate significant differences ($P \leq 0.05$) between different treatments.