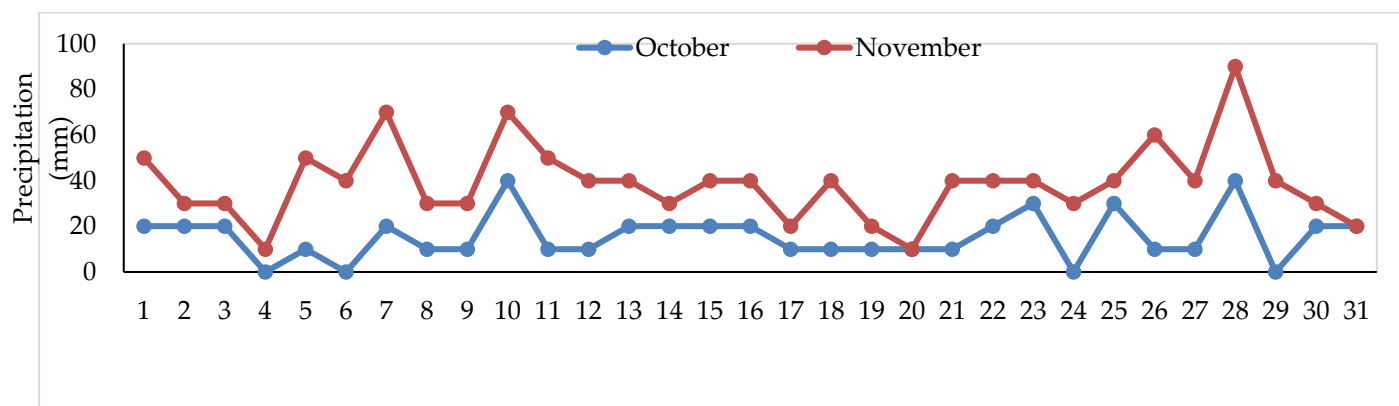
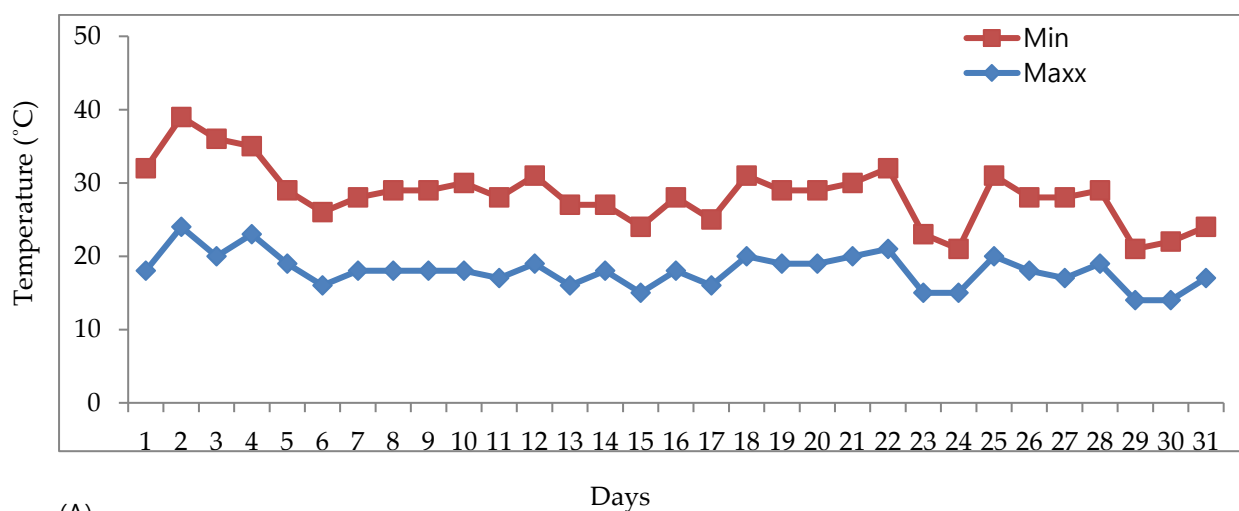


(A)

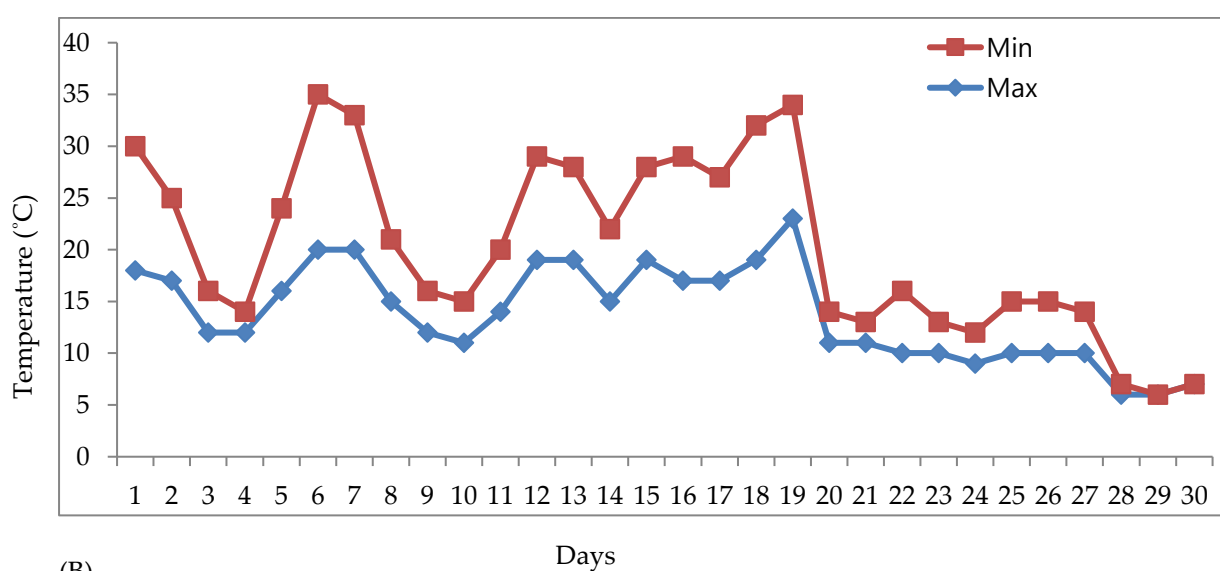


(B)

Figure S1. Fluctuation in the (A) humidity, (B) precipitation in the month of October and November during growth of *A. japonica*.



(A)



(B)

Figure S2. Fluctuation in the temperature in the month of October and November during growth of *A. japonica*.

Table S1. Pearson's correlation coefficients of the antioxidant properties and minerals.

Assays	Al	As	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Li	Mg	Mn	Ni	Pb	Se	Ag	Ti	Zn
DPPH	.982	-.945	.327	.132	.189	.156	.115	.156	.115	.101	.189	.132	.156	.132	.240	-.250	-.866	.327	.500
ABTS	1.000 <sup>ns</sup>	-.991	.509	.327	.381	.350	.311	.350	.311	.298	.381	.327	.350	.327	.429	-.051	-.949	.509	.663

Table S2. Calibration curves of 16 phenolic compounds.

Phytochemicals	Concentration ( $\mu\text{g mL}^{-1}$ )	Linearity ( $r^2$ )	Equation	LOD ( $\mu\text{g/g}$ )	LOQ ( $\mu\text{g/g}$ )
Protocatechuic acid	0.5	0.9917	$y=15900x-6370$	0.36	1.19
<i>p</i> -Hydroxybenzoic acid	0.5	0.9983	$y=45500x+14400$	0.09	0.29
Chlorogenic acid	0.5	0.9982	$y=378000x+54400$	0.006	0.022
<i>p</i> -Coumaric acid	0.5	0.9932	$y=63500x+16800$	0.034	0.114
Ferulic acid	0.5	0.9937	$y=10200x+73.4$	0.45	1.52
Rutin	0.5	0.9942	$y=77000x+53200$	0.025	0.085
Quercetin	0.5	0.9993	$y=160000x+6730$	0.045	0.152
5-Sulfosalicylic acid	0.5	0.9992	$y=342000x-33500$	0.044	0.15
Homogentisic acid	0.5	0.9963	$y=72800x-1550$	0.083	0.28
Salicylic acid	0.5	0.9977	$y=606000x-45.2$	0.022	0.075
Caffeic acid	0.5	0.9979	$y=282000x+62800$	0.01	0.033
Orientin	0.5	0.9986	$y=-5070x^2+71900x+4000$	0.043	0.14
Vitexin	0.5	0.9945	$y=-1340x^2+45900x+22300$	0.029	0.096
Apigenin	0.5	0.9989	$y=76700x+42400$	0.041	0.14
Luteolin	0.5	0.9973	$y=-1020x^2+56100x+13600$	0.079	0.26
L-Phenylalanine	0.5	0.9954	$y=484x+2490$	7.32	24.4