

Table S1. Rhizosphere soil pH, available P, exchangeable Ca, exchangeable Mg, and exchangeable Al of 16-week-old *Pinus massoniana* seedlings grown in an acidic yellow soil with (+Al) or without (–Al) Al treatment.

ECM isolate	Al Treatment	pH Value	Available P (mg kg ⁻¹ DW)	Exchangeable Ca (mg kg ⁻¹ DW)	Exchangeable Mg (mg kg ⁻¹ DW)	Exchangeable Al (mg kg ⁻¹ DW)
–ECM	–Al	4.49 ± 0.05b	4.04 ± 0.01b	3.62 ± 0.01c	0.29 ± 0b0c	11.36 ± 1.26c
	+Al	4.43 ± 0.04bc	4.80 ± 0.16a	4.01 ± 0.20a	0.32 ± 0.02ab	10.53 ± 0.59cd
<i>Laccaria bicolor</i> 270	–Al	4.38 ± 0.04c	3.40 ± 0.18cd	2.72 ± 0.09e	0.20 ± 0.02d	10.06 ± 0.00d
	+Al	4.37 ± 0.04c	3.67 ± 0.18c	3.83 ± 0.06b	0.31 ± 0.01b	14.35 ± 0.73a
<i>Laccaria bicolor</i> S238A	–Al	4.60 ± 0.04a	5.08 ± 0.00a	4.11 ± 0.02a	0.33 ± 0.00a	2.54 ± 0.00e
	+Al	4.35 ± 0.04c	3.29 ± 0.26d	3.59 ± 0.07c	0.30 ± 0.02b	12.66 ± 0.00b
<i>Laccaria bicolor</i> S238N	–Al	4.42 ± 0.04bc	3.41 ± 0.13cd	3.86 ± 0.01b	0.30 ± 0.00b	10.12 ± 0.76d
	+Al	4.27 ± 0.04d	4.05 ± 0.25b	3.39 ± 0.05d	0.27 ± 0.02c	14.76 ± 0.73a

¹ Different lowercase letters in the same column indicate significant differences among treatments at $p \leq 0.05$ level. Data show the means ± SD ($n = 3$).