

Supplementary material

Field Trials to Assess Growth and Stomatal Densities of Five Mexican Pine Species and Their Hybrids, Under Common Plantation Conditions

Supplementary Table S1. Difference between basal diameters medians of *Pinus* species in millimeters and *p* values calculated in Kruskal-Wallis multiple testing (both trials); $\alpha = 0.025$.

Species	PA-H	PA-P	PD-H	PD-P	PE-H	PE-P	PL-H	PL-P	PT-H
PA-P	3.3 (1)								
PD-H	0.4(0.81)	2.9(0.8)							
PD-P	1(0.83)	2.3(0.82)	0.65(1)						
PE-H	10(0.99)	13.3(0.99)	10.4(0.001)	11.05(0.1)					
PE-P	8.9(0.99)	12.2(0.99)	9.3(0.001)	9.9(0.08)	1.1(1)				
PL-H	6.4(0.58)	9.7(0.61)	6.8(0.98)	7.4(0.99)	3.6(0.007)	2.5(0.005)			
PL-P	5.1(0.53)	8.4(0.56)	5.5(0.97)	6.1(0.98)	4.9(0.02)	3.8(0.018)	1.3(1)		
PT-H	3.0(0.82)	6.3(0.81)	3.4(1)	4.0(1)	7.0(<0.001)	5.9(<0.001)	3.4(0.96)	2.1(0.94)	
PT-P	1.7(0.69)	5.0(0.7)	2.1(0.99)	2.7(0.99)	8.3(<0.001)	7.2(<0.001)	4.7(0.99)	3.4(0.99)	1.3(0.99)

PD-P = *Pinus durangensis*, PE-P = *P. engelmannii* and PT-P = *P. teocote*. PA-H = *Pinus arizonica* x *P. durangensis* hybrids genetically more similar to *P. arizonica*; PD-H = *P. durangensis* x *P. arizonica* hybrids genetically more similar to *P. durangensis* & *P. durangensis* x *P. engelmannii* genetically more similar to *P. durangensis*; PE-H = *P. engelmannii* & *P. arizonica* hybrids genetically more similar to *P. engelmannii*; PL-H = *P. leiophylla* x *P. teocote* hybrids genetically more similar to *P. leiophylla*; PT-H = *P. leiophylla* x *P. teocote* hybrids genetically more similar to *P. teocote*.

Supplementary Table S2. Differences between the median height to the apical bud of *Pinus* species in cm, and the corresponding *p* values, calculated in Kruskal-Wallis multiple tests (overall for both trials); $\alpha = 0.025$.

	PA-H	PA-P	PD-H	PD-P	PE-H	PE-P	PL-H	PL-P	PT-H
PA-P	6.1(1)								
PD-H	13.4(0.91)	7.3(1)							
PD-P	14.8(0.87)	8.6(1)	1.4(1)						
PE-H	2.8(1)	8.9(0.96)	16.3(<0.001)	17.7(<0.001)					
PE-P	2.7(1)	8.8(0.97)	16.2(<0.001)	17.5(<0.001)	0.1(1)				
PL-H	13.2(0.87)	7.0(1)	0.3(1)	1.6(1)	16(<0.001)	15.9(<0.001)			
PL-P	19(0.74)	12.8(0.99)	5.6(0.99)	4.2(1)	21.8(<0.001)	21.7(<0.001)	5.8(1)		
PT-H	14(0.91)	7.9(1)	0.6(1)	0.8(1)	16.8(<0.001)	16.7(<0.001)	0.8(1)	5(0.99)	
PT-P	16.5(0.86)	10.4(1)	3(1)	1.7(1)	19.3(<0.001)	19.2(<0.001)	3.3(1)	2.5(1)	2.5(1)

PD-P = *Pinus durangensis*, PE-P = *P. engelmannii* and PT-P = *Pinus teocote*. PA-H = *Pinus arizonica* x *P. durangensis* hybrids genetically more similar to *P. arizonica*; PD-H = *P. durangensis* x *P. arizonica* hybrids genetically more similar to *P. durangensis* (13 individuals) & *P. durangensis* x *P. engelmannii* genetically more similar to *P. durangensis* (63 individuals); PE-H = *P. engelmannii* & *P. arizonica* hybrids genetically more similar to *P. engelmannii*; PL-H = *P. leiophylla* x *P. teocote* hybrids genetically more similar to *P. leiophylla*; PT-H = *P. leiophylla* x *P. teocote* hybrids genetically more similar to *P. teocote*.

Supplementary Table S3. Difference between the medians of the maximum height to the top of the needles of *Pinus* species, in centimeters, and *p* values calculated in Kruskal-Wallis multiple tests (overall for both trials); $\alpha = 0.025$.

	PA-H	PA-P	PD-H	PD-P	PE-H	PE-P	PL-H	PL-P	PT-H
PA-P	2.5(1)								
PD-H	14.8(0.24)	12.4(0.59)							
PD-P	15.7(0.19)	13.2(0.52)	0.9(0.99)						
PE-H	5.8(0.98)	3.4(0.99)	9(<0.001)	9.9(<0.001)					
PE-P	5.8(0.98)	3.4(0.99)	9(<0.001)	9.9(<0.001)	0(1)				
PL-H	11.2(0.7)	8.8(0.91)	3.6(0.84)	4.5(0.74)	5.4(0.34)	5.4(0.41)			
PL-P	15.8(0.48)	13.4(0.78)	1(0.99)	0.1(0.99)	10(0.11)	10(0.13)	4.6(0.99)		
PT-H	10.6(0.72)	8.1(0.92)	4.2(0.04)	5(0.11)	4.8(<0.001)	4.8(0.001)	1.2(1)	5.3(0.97)	
PT-P	12.4(0.51)	9.9(0.82)	2.4(0.81)	3.2(0.74)	6.6(<0.001)	6.6(<0.001)	1.2(0.99)	3.4(0.99)	1.8(0.89)

PD-P = *Pinus durangensis*, PE-P = *P. engelmannii* and PT-P = *P. teocote*; PA-H = *P. arizonica* x *P. durangensis* hybrid genetically more similar to *P. arizonica*; PD-H = *P. durangensis* x *P. arizonica* hybrids genetically more similar to *P. durangensis* (13 individuals) and *P. durangensis* x *P. engelmannii* genetically more similar to *P. durangensis* (63 individuals); PE-H = *P. engelmannii* x *P. arizonica* hybrids genetically more similar to *P. engelmannii*; PL-H = *P. leiophylla* x *P. teocote* hybrids genetically more similar to *P. leiophylla*; PT-H = *P. leiophylla* x *P. teocote* hybrids genetically more similar to *P. teocote*.

Supplementary Table S4. Delta index (δ) and corresponding *p* values in delta tests for the survival of *Pinus* species (both trials combined), $\alpha = 0.025$.

	PA-H	PA-P	PD-H	PD-P	PE-H	PE-P	PL-H	PL-P	PT-H
PA-P	0.33(0.002)								
PD-H	0.05(0.81)	0.28(<0.001)							
PD-P	0.18(0.07)	0.14(0.03)	0.14(0.01)						
PE-H	0.0003(1)	0.33(<0.001)	0.05(0.23)	0.18(<0.001)					
PE-P	0.04(0.84)	0.29(<0.001)	0.01(0.87)	0.15(0.002)	0.25(0.99)				
PL-H	0.09(0.46)	0.24(0.003)	0.04(0.56)	0.09(0.19)	0.09(0.15)	0.05(0.45)			
PL-P	0.14(0.29)	0.18(0.02)	0.09(0.20)	0.04(0.60)	0.14(0.05)	0.10(0.15)	0.05(0.57)		
PT-H	0.07(0.52)	0.25(<0.001)	0.02(0.58)	0.11(0.02)	0.06(0.99)	0.15(0.99)	0.01(0.89)	0.06(0.38)	
PT-P	0.11(0.37)	0.21(0.001)	0.06(0.14)	0.06(0.17)	0.12(0.001)	0.06(0.64)	0.02(0.77)	0.02(0.75)	0.04(0.27)

PD-P = *Pinus durangensis*, PE-P = *P. engelmannii* and PT = *P. teocote*; PA-H = *P. arizonica* x *P. durangensis* hybrids genetically more similar to *P. arizonica*; PD-H = *P. durangensis* x *P. arizonica* hybrids genetically more similar to *P. durangensis* (13 individuals) and *P. durangensis* x *P. engelmannii* genetically more similar to *P. durangensis* (63 individuals); PE-H = *P. engelmannii* & *P. arizonica* hybrids genetically more similar to *P. engelmannii*; PL-H = *P. leiophylla* x *P. teocote* hybrids genetically more similar to *P. leiophylla*; PT-H = *P. leiophylla* x *P. teocote* hybrids genetically more similar to *P. teocote*.