

C A M C O R E

ANOVA AND MULTIPLE COMPARISONS FOR PROVENANCE AND FAMILY HEIGHT

ONE YEAR MEASUREMENTS

TEST IDENTIFICATION: 20-26-07C1
SPECIES: Pinus patula
COMPANY: Klabin Do Parana Agro Florestal
SITE NAME: Imbauzinho 118B
LATITUDE: 24° 16' 10" S
LONGITUDE: 50° 38' 25" W
ELEVATION: 780 m
ANNUAL PRECIPITATION: 1,473 mm

DATE PLANTED: October 1988
DATE MEASURED: October 1989

ANALYSIS OF VARIANCE

DEPENDENT VARIABLE: One Year Height (meters)

<u>SOURCE</u>	<u>DF</u>	<u>SUM OF SQUARES</u>	<u>F VALUE</u>
REP	8	2.49639360	4.52 **
PROV	8	3.88945080	7.05 **
REP*PROV	64	4.41422640	1.55 **
FAM(PROV)	31	2.92804419	2.13 **
REP*FAM(PROV)	248	11.01209106	1.77 **
ERROR	1602	40.14310333	
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CORRECTED TOTAL	1961	65.55294337	

** Significant at $p < .01$

TEST MEAN C.V. (%)
0.692 m 22.89

***** MEANS BY PROVENANCE *****

WALLER-DUNCAN MULTIPLE COMPARISONS FOR ONE YEAR PROVENANCE HEIGHT
 MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.

<u>Waller</u>	<u>Grouping</u>	<u>Mean</u>	<u>N</u>	<u>Provenance</u>	
	A	0.839	50	Control	(999)
	B	0.751	140	Zacualtipan	(12)
	B	0.736	211	Conrado Castillo	(8)
	B	0.718	203	Cuajimoloyas	(9)
	B	0.707	249	Potrero De Monroy	(1)
C	B	0.698	284	Pinal De Amoles	(11)
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C	D	0.649	430	Llano De Las Carmonas	(13)
C	D	0.648	345	Tlacotla	(10)
C	D	0.632	50	Control	(998)

* Control lots: 998 = Pinus elliottii, Commercial control
 999 = Pinus taeda, Commercial control

***** MEANS BY FAMILY *****

<u>Family</u>	<u>Provenance</u>	<u># Trees</u>	<u>% Survival</u>	<u>Mean Height (m)</u>	<u>C.V. (%)</u>
999	*	50	92.59	0.84	21.85
250	12	44	81.48	0.80	21.89
194	9	51	94.44	0.80	24.64
226	8	54	100.00	0.77	21.87
229	8	53	98.15	0.76	17.14
11	1	52	96.30	0.75	25.80
200	11	48	88.89	0.74	24.58
28	1	53	98.15	0.74	28.84
248	12	54	100.00	0.73	30.12
215	11	50	92.59	0.73	27.12
224	8	52	96.30	0.72	18.13
249	12	42	77.78	0.72	25.87
269	13	47	87.04	0.71	27.38
206	11	42	77.78	0.71	29.82
213	11	50	92.59	0.71	29.09
192	9	50	92.59	0.70	23.13
281	13	48	88.89	0.69	22.38
276	13	49	90.74	0.69	23.97
191	9	53	98.15	0.69	23.38
5	1	52	96.30	0.69	27.87
246	8	52	96.30	0.69	17.37
305	10	52	96.30	0.69	36.75
195	9	49	90.74	0.68	31.36
307	10	49	90.74	0.68	19.92
8	1	46	85.19	0.68	24.29
304	10	47	87.04	0.67	26.16
287	13	52	96.30	0.67	27.69
10	1	46	85.19	0.67	24.50
298	10	47	87.04	0.66	26.64
300	10	50	92.59	0.66	29.23
203	11	49	90.74	0.65	21.16
275	13	47	87.04	0.65	23.96
201	11	45	83.33	0.65	23.62
279	13	49	90.74	0.63	23.04
271	13	50	92.59	0.63	22.56
998	*	50	92.59	0.63	24.59
291	10	49	90.74	0.60	28.04
273	13	42	77.78	0.59	26.58
294	10	51	94.44	0.58	22.34
263	13	46	85.19	0.54	21.66

	<u># Trees</u>	<u>% Survival</u>	<u>Mean Height (m)</u>	<u>C.V. (%)</u>

OVERALL	1862	90.74	0.69	26.37

The overall mean does not include control lots.

Provenance code: 1 = Potrero De Monroy, Mexico
8 = Conrado Castillo, Mexico
9 = Cuajimoloyas, Mexico
10 = Tlacotla, Mexico
11 = Pinal De Amoles, Mexico
12 = Zacualtipan, Mexico
13 = Llano De Las Carmonas, Mexico