

C A M C O R E

ANOVA AND MULTIPLE COMPARISONS FOR PROVENANCE AND FAMILY HEIGHT

THREE YEAR MEASUREMENTS

TEST IDENTIFICATION: 15-15-01F
SPECIES: Pinus maximinoi
COMPANY: CENIBRA Florestal
SITE NAME: Fazenda Primavera
LATITUDE: 18° 38' 03" S
LONGITUDE: 42° 51' 18" W
ELEVATION: 850 m
ANNUAL PRECIPITATION: 1300 - 1500 mm

DATE PLANTED: December 1986
DATE MEASURED: March 1990

ANALYSIS OF VARIANCE

DEPENDENT VARIABLE: Three Year Height (meters)

<u>SOURCE</u>	<u>DF</u>	<u>SUM OF SQUARES</u>	<u>F VALUE</u>
REP	8	185.48557710	5.68 **
PROV	5	28.05922637	1.38 ns
REP*PROV	40	163.21529120	2.35 **
FAM(PROV)	19	82.61726862	2.51 **
REP*FAM(PROV)	142	246.36414498	1.03 ns
ERROR	708	1190.47600000	
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CORRECTED TOTAL	922	1993.02689057	

ns: Not significant

** Significant at $p < .01$

TEST MEAN C.V. (%)
6.15 m 21.09

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

The Waller-Duncan multiple comparison procedure shows no significant differences among the mean provenance heights.

<u>Provenance</u>	<u># Trees</u>	<u>% Survival</u>	<u>Mean Height (m)</u>	<u>C.V. (%)</u>	<u>Mean D.B.H. (cm)</u>
San Jeronimo	337	69.34	6.4	24.38	8.0
Tatumbula	144	66.67	6.0	23.99	7.8
San Juan	169	78.24	6.0	24.86	7.6
Coban	116	71.60	6.0	22.50	8.1
* Control	49	90.74	6.0	19.91	9.8
Marcala	108	66.67	5.9	22.07	6.7

* Control lot: 999 = P. caribaea var. hondurensis, Seed orchard, Aracruz

15-15-01F

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

<u>Family</u>	<u>Prov</u>	<u># Trees</u>	<u>% Survival</u>	<u>Mean Height (m)</u>	<u>C.V. (%)</u>	<u>Mean D.B.H. (cm)</u>
89	2	10	55.56	7.1	26.72	8.4
73	2	37	68.52	7.1	21.67	8.0
50	3	40	74.07	6.9	21.71	8.3
61	2	32	59.26	6.7	24.57	8.8
80	2	42	77.78	6.7	22.27	8.1
151	7	30	55.56	6.5	26.55	7.9
88	2	27	75.00	6.5	25.78	8.5
102	5	36	66.67	6.3	22.07	7.1
63	2	35	64.81	6.2	26.71	8.1
76	2	35	64.81	6.2	29.54	7.7
66	2	38	70.37	6.2	23.70	7.6
2	1	41	75.93	6.1	23.33	7.8
71	2	41	75.93	6.1	21.59	7.6
46	3	44	81.48	6.0	23.65	8.0
160	7	46	85.19	6.0	22.47	7.8
999	*	49	90.74	6.0	19.91	9.8
6	1	36	66.67	6.0	20.31	8.2
18	1	39	72.22	6.0	23.97	8.4
69	2	40	74.07	6.0	19.95	7.8
143	7	31	57.41	5.9	20.42	7.7
133	7	37	68.52	5.8	25.04	7.6
124	5	32	59.26	5.7	19.25	6.7
44	3	47	87.04	5.7	28.04	7.2
130	5	40	74.07	5.6	22.87	6.3
31	3	38	70.37	5.6	19.72	7.0

OVERALL		874	70.37	6.2	24.11	7.7
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The overall values do not include control lots.

Provenance code: 1 = Coban, Guatemala
 2 = San Jeronimo, Guatemala
 3 = San Juan Sacatepequez, Guatemala
 5 = Marcala, Honduras
 7 = Tatumbula, Honduras