

## Apéndice F Análisis estadístico de parámetros de color en jugo de manzana tratados térmicamente.

### Lh versus temperatura

Factor	Type	Levels	Values
tempera	fixed	4	25 45 70 80

Analysis of Variance for Lh, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
tempera	3	101.671	101.671	33.890	1743.19	0.000
Error	8	0.156	0.156	0.019		
Total	11	101.827				

Tukey Simultaneous Tests

Response Variable Lh

All Pairwise Comparisons among Levels of temperatura

temperatura = 25 subtracted from:

Level	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
45	-2.247	0.1138	-19.73	0.0000
70	3.817	0.1138	33.52	0.0000
80	5.010	0.1138	44.01	0.0000

temperatura = 45 subtracted from:

Level	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
70	6.063	0.1138	53.26	0.0000
80	7.257	0.1138	63.74	0.0000

temperatura = 70 subtracted from:

Level	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
80	1.193	0.1138	10.48	0.0000

### ah versus temperatura

Factor	Type	Levels	Values
tempera	fixed	4	25 45 70 80

Analysis of Variance for ah, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
tempera	3	7.6745	7.6745	2.5582	38.20	0.000
Error	8	0.5358	0.5358	0.0670		
Total	11	8.2103				

Tukey Simultaneous Tests

Response Variable ah  
 All Pairwise Comparisons among Levels of temperatura

temperatura = 25 subtracted from:

Level tempera	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
45	1.5933	0.2113	7.540	0.0003
70	-0.5267	0.2113	-2.492	0.0358
80	-0.0467	0.2113	-0.221	0.0059

temperatura = 45 subtracted from:

Level tempera	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
70	-2.120	0.2113	-10.03	0.0000
80	-1.640	0.2113	-7.76	0.0003

temperatura = 70 subtracted from:

Level tempera	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
80	0.4800	0.2113	2.272	0.1841

**bh versus temperatura**

Factor	Type	Levels	Values
tempera	fixed	4	25 45 70 80

Analysis of Variance for bh, using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
tempera	3	12.5240	12.5240	4.1747	44.72	0.000
Error	8	0.7467	0.7467	0.0933		
Total	11	13.2708				

Tukey 95.0% Simultaneous Confidence Intervals  
 Response Variable bh  
 All Pairwise Comparisons among Levels of temperatura

temperatura = 25 subtracted from:

Level tempera	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
45	-0.4267	0.2495	-1.710	0.3784
70	1.2300	0.2495	4.931	0.0050
80	2.1633	0.2495	8.672	0.0001

temperatura = 45 subtracted from:

Level tempera	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
70	1.657	0.2495	6.641	0.0007
80	2.590	0.2495	10.383	0.0000

temperatura = 70 subtracted from:

Level tempera	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
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80                    0.9333            0.2495            3.741            0.0236

**Δe' versus Temperatura**

Factor      Type      Levels      Values  
 Temperat   fixed      3            45 70 80

Analysis of Variance for De', using Adjusted SS for Tests

Source	DF	Seq SS	Adj SS	Adj MS	F	P
Temperat	2	10.6232	10.6232	5.3116	66.01	0.000
Error	6	0.4828	0.4828	0.0805		
Total	8	11.1060				

Tukey 95.0% Simultaneous Confidence Intervals  
 Response Variable De'  
 All Pairwise Comparisons among Levels of Temperat

Temperat = 45 subtracted from:

Level Temperat	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
70	1.260	0.2316	5.440	0.0039
80	2.660	0.2316	11.485	0.0001

Temperat = 70 subtracted from:

Level Temperat	Difference of Means	SE of Difference	T-Value	Adjusted P-Value
80	1.400	0.2316	6.045	0.0023