The SAS System 10:27 Saturday, January 25, 2003 207

The GLM Procedure

Class Level Information

Class Levels Values

trt 24 T10BB T11B T12BB T13B T14B T15B T16B T17BB T18BB T19B T1BB T20BB T21B T22BB

T23B T24B T2BB T3BB T4BB T5B T6B T7B T8BB T9BB

rep 3 1 2 3

NR 4 0 23 46 69

Number of observations 72

The SAS System 10:27 Saturday, January 25, 2003 208

The GLM Procedure

Dependent Variable: DF

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 1291.888889 51.675556 27.25 <.0001

Error 46 87.222222 1.896135

Corrected Total 71 1379.111111

R-Square Coeff Var Root MSE DF Mean

0.936755 1.306592 1.377002 105.3889

Source DF Type III SS Mean Square F Value Pr > F

trt 20 1244.333333 62.216667 32.81 <.0001

rep 2 23.444444 11.722222 6.18 0.0042

NR 0 0.000000 . . .

trt\*NR 0 0.000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 209

The GLM Procedure

Dependent Variable: PH

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 14120.05625 564.80225 4.31 <.0001

Error 46 6024.02250 130.95701

Corrected Total 71 20144.07875

R-Square Coeff Var Root MSE PH Mean

0.700953 8.923210 11.44364 128.2458

Source DF Type III SS Mean Square F Value Pr > F

trt 20 13046.55500 652.32775 4.98 <.0001

rep 2 174.53083 87.26542 0.67 0.5185

NR 0 0.00000 . . .

trt\*NR 0 0.00000 . . .

The SAS System 10:27 Saturday, January 25, 2003 210

The GLM Procedure

Dependent Variable: NT

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 562.6692750 22.5067710 105.72 <.0001

Error 46 9.7925250 0.2128810

Corrected Total 71 572.4618000

R-Square Coeff Var Root MSE NT Mean

0.982894 5.791510 0.461390 7.966667

Source DF Type III SS Mean Square F Value Pr > F

trt 20 556.6800000 27.8340000 130.75 <.0001

rep 2 0.0492750 0.0246375 0.12 0.8910

NR 0 0.0000000 . . .

trt\*NR 0 0.0000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 211

The GLM Procedure

Dependent Variable: LPP

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 27.20291667 1.08811667 1.96 0.0241

Error 46 25.59583333 0.55643116

Corrected Total 71 52.79875000

R-Square Coeff Var Root MSE LPP Mean

0.515219 13.61417 0.745943 5.479167

Source DF Type III SS Mean Square F Value Pr > F

trt 20 21.28722222 1.06436111 1.91 0.0352

rep 2 4.45083333 2.22541667 4.00 0.0250

NR 0 0.00000000 . . .

trt\*NR 0 0.00000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 212

The GLM Procedure

Dependent Variable: LH

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 9173.938264 366.957531 63.58 <.0001

Error 46 265.479931 5.771303

Corrected Total 71 9439.418194

R-Square Coeff Var Root MSE LH Mean

0.971875 6.807409 2.402354 35.29028

Source DF Type III SS Mean Square F Value Pr > F

trt 20 8789.118333 439.455917 76.15 <.0001

rep 2 3.001736 1.500868 0.26 0.7721

NR 0 0.000000 . . .

trt\*NR 0 0.000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 213

The GLM Procedure

Dependent Variable: LAPP

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 40165.86448 1606.63458 606.04 <.0001

Error 46 121.94781 2.65104

Corrected Total 71 40287.81229

R-Square Coeff Var Root MSE LAPP Mean

0.996973 3.986089 1.628201 40.84708

Source DF Type III SS Mean Square F Value Pr > F

trt 20 40079.80093 2003.99005 755.93 <.0001

rep 2 2.08206 1.04103 0.39 0.6775

NR 0 0.00000 . . .

trt\*NR 0 0.00000 . . .

The SAS System 10:27 Saturday, January 25, 2003 214

The GLM Procedure

Dependent Variable: LSR

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 62.7149222 2.5085969 1.00 0.4807

Error 46 114.8435222 2.4965983

Corrected Total 71 177.5584444

R-Square Coeff Var Root MSE LSR Mean

0.353207 107.3250 1.580063 1.472222

Source DF Type III SS Mean Square F Value Pr > F

trt 20 50.79980000 2.53999000 1.02 0.4621

rep 2 5.07041111 2.53520556 1.02 0.3702

NR 0 0.00000000 . . .

trt\*NR 0 0.00000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 215

The GLM Procedure

Dependent Variable: FHYtonha

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 4325.223264 173.008931 3.93 <.0001

Error 46 2025.290047 44.028045

Corrected Total 71 6350.513311

R-Square Coeff Var Root MSE FHYtonha Mean

0.681082 12.53756 6.635363 52.92389

Source DF Type III SS Mean Square F Value Pr > F

trt 20 3920.297333 196.014867 4.45 <.0001

rep 2 66.686886 33.343443 0.76 0.4747

NR 0 0.000000 . . .

trt\*NR 0 0.000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 216

The GLM Procedure

Dependent Variable: DMYtonha

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 1014.888663 40.595547 1.14 0.3407

Error 46 1636.212725 35.569842

Corrected Total 71 2651.101388

R-Square Coeff Var Root MSE DMYtonha Mean

0.382818 123.4260 5.964046 4.832083

Source DF Type III SS Mean Square F Value Pr > F

trt 20 826.3225056 41.3161253 1.16 0.3279

rep 2 72.7386750 36.3693375 1.02 0.3677

NR 0 0.0000000 . . .

trt\*NR 0 0.0000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 217

The GLM Procedure

Dependent Variable: DSM

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 9267.10281 370.68411 1.07 0.4130

Error 46 15973.45108 347.24894

Corrected Total 71 25240.55389

R-Square Coeff Var Root MSE DSM Mean

0.367151 11.52446 18.63462 161.6963

Source DF Type III SS Mean Square F Value Pr > F

trt 20 7405.043583 370.252179 1.07 0.4135

rep 2 985.666858 492.833429 1.42 0.2523

NR 0 0.000000 . . .

trt\*NR 0 0.000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 218

The GLM Procedure

Dependent Variable: Yldkg

Sum of

Source DF Squares Mean Square F Value Pr > F

Model 25 10393.15408 415.72616 1.61 0.0806

Error 46 11899.13895 258.67693

Corrected Total 71 22292.29303

R-Square Coeff Var Root MSE Yldkg Mean

0.466222 53.54626 16.08344 30.03653

Source DF Type III SS Mean Square F Value Pr > F

trt 20 7857.435094 392.871755 1.52 0.1207

rep 2 516.918119 258.459060 1.00 0.3760

NR 0 0.000000 . . .

trt\*NR 0 0.000000 . . .

The SAS System 10:27 Saturday, January 25, 2003 219

The GLM Procedure

t Tests (LSD) for DF

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 1.896135

Critical Value of t 2.01290

Least Significant Difference 0.8001

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 105.8333 24 1

A

A 105.7500 24 2

B 104.5833 24 3

The SAS System 10:27 Saturday, January 25, 2003 220

The GLM Procedure

Duncan's Multiple Range Test for DF

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 1.896135

Number of Means 2 3

Critical Range .8002 .8415

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 105.8333 24 1

A

A 105.7500 24 2

B 104.5833 24 3

The SAS System 10:27 Saturday, January 25, 2003 221

The GLM Procedure

t Tests (LSD) for PH

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 130.957

Critical Value of t 2.01290

Least Significant Difference 6.6496

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 129.608 24 1

A

A 129.063 24 2

A

A 126.067 24 3

The SAS System 10:27 Saturday, January 25, 2003 222

The GLM Procedure

Duncan's Multiple Range Test for PH

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 130.957

Number of Means 2 3

Critical Range 6.650 6.993

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 129.608 24 1

A

A 129.063 24 2

A

A 126.067 24 3

The SAS System 10:27 Saturday, January 25, 2003 223

The GLM Procedure

t Tests (LSD) for NT

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 0.212881

Critical Value of t 2.01290

Least Significant Difference 0.2681

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 7.9967 24 3

A

A 7.9704 24 1

A

A 7.9329 24 2

The SAS System 10:27 Saturday, January 25, 2003 224

The GLM Procedure

Duncan's Multiple Range Test for NT

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 0.212881

Number of Means 2 3

Critical Range .2681 .2820

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 7.9967 24 3

A

A 7.9704 24 1

A

A 7.9329 24 2

The SAS System 10:27 Saturday, January 25, 2003 225

The GLM Procedure

t Tests (LSD) for LPP

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 0.556431

Critical Value of t 2.01290

Least Significant Difference 0.4334

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 5.8167 24 1

A

B A 5.3958 24 2

B

B 5.2250 24 3

The SAS System 10:27 Saturday, January 25, 2003 226

The GLM Procedure

Duncan's Multiple Range Test for LPP

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 0.556431

Number of Means 2 3

Critical Range .4335 .4558

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 5.8167 24 1

A

B A 5.3958 24 2

B

B 5.2250 24 3

The SAS System 10:27 Saturday, January 25, 2003 227

The GLM Procedure

t Tests (LSD) for LH

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 5.771303

Critical Value of t 2.01290

Least Significant Difference 1.3959

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 35.5438 24 1

A

A 35.2833 24 2

A

A 35.0438 24 3

The SAS System 10:27 Saturday, January 25, 2003 228

The GLM Procedure

Duncan's Multiple Range Test for LH

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 5.771303

Number of Means 2 3

Critical Range 1.396 1.468

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 35.5438 24 1

A

A 35.2833 24 2

A

A 35.0438 24 3

The SAS System 10:27 Saturday, January 25, 2003 229

The GLM Procedure

t Tests (LSD) for LAPP

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 2.651039

Critical Value of t 2.01290

Least Significant Difference 0.9461

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 41.0129 24 3

A

A 40.9150 24 1

A

A 40.6133 24 2

The SAS System 10:27 Saturday, January 25, 2003 230

The GLM Procedure

Duncan's Multiple Range Test for LAPP

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 2.651039

Number of Means 2 3

Critical Range .9461 .9950

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 41.0129 24 3

A

A 40.9150 24 1

A

A 40.6133 24 2

The SAS System 10:27 Saturday, January 25, 2003 231

The GLM Procedure

t Tests (LSD) for LSR

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 2.496598

Critical Value of t 2.01290

Least Significant Difference 0.9181

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 1.8475 24 3

A

A 1.2875 24 2

A

A 1.2817 24 1

The SAS System 10:27 Saturday, January 25, 2003 232

The GLM Procedure

Duncan's Multiple Range Test for LSR

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 2.496598

Number of Means 2 3

Critical Range .9181 .9656

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 1.8475 24 3

A

A 1.2875 24 2

A

A 1.2817 24 1

The SAS System 10:27 Saturday, January 25, 2003 233

The GLM Procedure

t Tests (LSD) for FHYtonha

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 44.02804

Critical Value of t 2.01290

Least Significant Difference 3.8556

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 53.635 24 1

A

A 53.573 24 2

A

A 51.563 24 3

The SAS System 10:27 Saturday, January 25, 2003 234

The GLM Procedure

Duncan's Multiple Range Test for FHYtonha

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 44.02804

Number of Means 2 3

Critical Range 3.856 4.055

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 53.635 24 1

A

A 53.573 24 2

A

A 51.563 24 3

The SAS System 10:27 Saturday, January 25, 2003 235

The GLM Procedure

t Tests (LSD) for DMYtonha

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 35.56984

Critical Value of t 2.01290

Least Significant Difference 3.4655

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 6.253 24 3

A

A 4.142 24 1

A

A 4.101 24 2

The SAS System 10:27 Saturday, January 25, 2003 236

The GLM Procedure

Duncan's Multiple Range Test for DMYtonha

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 35.56984

Number of Means 2 3

Critical Range 3.466 3.645

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 6.253 24 3

A

A 4.142 24 1

A

A 4.101 24 2

The SAS System 10:27 Saturday, January 25, 2003 237

The GLM Procedure

t Tests (LSD) for DSM

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 347.2489

Critical Value of t 2.01290

Least Significant Difference 10.828

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 164.333 24 1

A

A 164.292 24 2

A

A 156.464 24 3

The SAS System 10:27 Saturday, January 25, 2003 238

The GLM Procedure

Duncan's Multiple Range Test for DSM

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 347.2489

Number of Means 2 3

Critical Range 10.83 11.39

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 164.333 24 1

A

A 164.292 24 2

A

A 156.464 24 3

The SAS System 10:27 Saturday, January 25, 2003 239

The GLM Procedure

t Tests (LSD) for Yldkg

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 258.6769

Critical Value of t 2.01290

Least Significant Difference 9.3456

Means with the same letter are not significantly different.

t Grouping Mean N rep

A 33.826 24 3

A

A 28.142 24 2

A

A 28.142 24 1

The SAS System 10:27 Saturday, January 25, 2003 240

The GLM Procedure

Duncan's Multiple Range Test for Yldkg

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 258.6769

Number of Means 2 3

Critical Range 9.346 9.828

Means with the same letter are not significantly different.

Duncan Grouping Mean N rep

A 33.826 24 3

A

A 28.142 24 2

A

A 28.142 24 1

The SAS System 10:27 Saturday, January 25, 2003 241

The GLM Procedure

t Tests (LSD) for DF

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 1.896135

Critical Value of t 2.01290

Least Significant Difference 0.9239

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 106.2222 18 69

A

B A 105.6111 18 46

B

B 105.0000 18 23

B

B 104.7222 18 0

The SAS System 10:27 Saturday, January 25, 2003 242

The GLM Procedure

Duncan's Multiple Range Test for DF

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 1.896135

Number of Means 2 3 4

Critical Range 0.924 0.972 1.003

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 106.2222 18 69

A

B A 105.6111 18 46

B

B 105.0000 18 23

B

B 104.7222 18 0

The SAS System 10:27 Saturday, January 25, 2003 243

The GLM Procedure

t Tests (LSD) for PH

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 130.957

Critical Value of t 2.01290

Least Significant Difference 7.6783

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 131.778 18 69

A

A 131.728 18 46

A

A 125.350 18 0

A

A 124.128 18 23

The SAS System 10:27 Saturday, January 25, 2003 244

The GLM Procedure

Duncan's Multiple Range Test for PH

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 130.957

Number of Means 2 3 4

Critical Range 7.678 8.075 8.335

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 131.778 18 69

A

A 131.728 18 46

A

A 125.350 18 0

A

A 124.128 18 23

The SAS System 10:27 Saturday, January 25, 2003 245

The GLM Procedure

t Tests (LSD) for NT

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 0.212881

Critical Value of t 2.01290

Least Significant Difference 0.3096

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 8.3056 18 69

A

A 8.1722 18 23

B 7.8056 18 46

B

B 7.5833 18 0

The SAS System 10:27 Saturday, January 25, 2003 246

The GLM Procedure

Duncan's Multiple Range Test for NT

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 0.212881

Number of Means 2 3 4

Critical Range .3096 .3256 .3361

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 8.3056 18 69

A

A 8.1722 18 23

B 7.8056 18 46

B

B 7.5833 18 0

The SAS System 10:27 Saturday, January 25, 2003 247

The GLM Procedure

t Tests (LSD) for LPP

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 0.556431

Critical Value of t 2.01290

Least Significant Difference 0.5005

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 5.7167 18 23

A

A 5.4556 18 46

A

A 5.4000 18 69

A

A 5.3444 18 0

The SAS System 10:27 Saturday, January 25, 2003 248

The GLM Procedure

Duncan's Multiple Range Test for LPP

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 0.556431

Number of Means 2 3 4

Critical Range .5005 .5264 .5433

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 5.7167 18 23

A

A 5.4556 18 46

A

A 5.4000 18 69

A

A 5.3444 18 0

The SAS System 10:27 Saturday, January 25, 2003 249

The GLM Procedure

t Tests (LSD) for LH

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 5.771303

Critical Value of t 2.01290

Least Significant Difference 1.6119

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 38.4944 18 69

B 36.1889 18 23

C 34.1667 18 46

D 32.3111 18 0

The SAS System 10:27 Saturday, January 25, 2003 250

The GLM Procedure

Duncan's Multiple Range Test for LH

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 5.771303

Number of Means 2 3 4

Critical Range 1.612 1.695 1.750

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 38.4944 18 69

B 36.1889 18 23

C 34.1667 18 46

D 32.3111 18 0

The SAS System 10:27 Saturday, January 25, 2003 251

The GLM Procedure

t Tests (LSD) for LAPP

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 2.651039

Critical Value of t 2.01290

Least Significant Difference 1.0925

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 42.5694 18 69

B 40.9122 18 46

B

C B 40.1739 18 23

C

C 39.7328 18 0

The SAS System 10:27 Saturday, January 25, 2003 252

The GLM Procedure

Duncan's Multiple Range Test for LAPP

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 2.651039

Number of Means 2 3 4

Critical Range 1.092 1.149 1.186

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 42.5694 18 69

B 40.9122 18 46

B

C B 40.1739 18 23

C

C 39.7328 18 0

The SAS System 10:27 Saturday, January 25, 2003 253

The GLM Procedure

t Tests (LSD) for LSR

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 2.496598

Critical Value of t 2.01290

Least Significant Difference 1.0602

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 2.0044 18 46

A

A 1.3156 18 23

A

A 1.3156 18 69

A

A 1.2533 18 0

The SAS System 10:27 Saturday, January 25, 2003 254

The GLM Procedure

Duncan's Multiple Range Test for LSR

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 2.496598

Number of Means 2 3 4

Critical Range 1.060 1.115 1.151

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 2.0044 18 46

A

A 1.3156 18 23

A

A 1.3156 18 69

A

A 1.2533 18 0

The SAS System 10:27 Saturday, January 25, 2003 255

The GLM Procedure

t Tests (LSD) for FHYtonha

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 44.02804

Critical Value of t 2.01290

Least Significant Difference 4.4521

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 55.417 18 69

A

B A 53.722 18 23

B A

B A 53.084 18 46

B

B 49.472 18 0

The SAS System 10:27 Saturday, January 25, 2003 256

The GLM Procedure

Duncan's Multiple Range Test for FHYtonha

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 44.02804

Number of Means 2 3 4

Critical Range 4.452 4.682 4.833

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 55.417 18 69

A

B A 53.722 18 23

B A

B A 53.084 18 46

B

B 49.472 18 0

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The GLM Procedure

t Tests (LSD) for DMYtonha

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 35.56984

Critical Value of t 2.01290

Least Significant Difference 4.0017

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 7.001 18 46

A

A 4.438 18 69

A

A 3.982 18 0

A

A 3.908 18 23

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The GLM Procedure

Duncan's Multiple Range Test for DMYtonha

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 35.56984

Number of Means 2 3 4

Critical Range 4.002 4.208 4.344

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 7.001 18 46

A

A 4.438 18 69

A

A 3.982 18 0

A

A 3.908 18 23

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The GLM Procedure

t Tests (LSD) for DSM

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 347.2489

Critical Value of t 2.01290

Least Significant Difference 12.503

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 164.500 18 0

A

A 163.611 18 69

A

A 162.944 18 23

A

A 155.729 18 46

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The GLM Procedure

Duncan's Multiple Range Test for DSM

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 347.2489

Number of Means 2 3 4

Critical Range 12.50 13.15 13.57

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 164.500 18 0

A

A 163.611 18 69

A

A 162.944 18 23

A

A 155.729 18 46

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The GLM Procedure

t Tests (LSD) for Yldkg

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 258.6769

Critical Value of t 2.01290

Least Significant Difference 10.791

Means with the same letter are not significantly different.

t Grouping Mean N NR

A 36.656 18 46

A

B A 33.544 18 23

B A

B A 26.518 18 69

B

B 23.429 18 0

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The GLM Procedure

Duncan's Multiple Range Test for Yldkg

NOTE: This test controls the Type I comparisonwise error rate, not the experimentwise error rate.

Alpha 0.05

Error Degrees of Freedom 46

Error Mean Square 258.6769

Number of Means 2 3 4

Critical Range 10.79 11.35 11.71

Means with the same letter are not significantly different.

Duncan Grouping Mean N NR

A 36.656 18 46

A

B A 33.544 18 23

B A

B A 26.518 18 69

B

B 23.429 18 0

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The GLM Procedure

Level of Level of ------------DF----------- ------------PH----------- ------------NT-----------

trt NR N Mean Std Dev Mean Std Dev Mean Std Dev

T10BB 0 3 100.000000 1.00000000 117.466667 1.2220202 13.1666667 0.57735027

T11B 0 3 108.666667 2.51661148 146.533333 1.6165808 6.6666667 0.76376262

T12BB 69 3 104.000000 1.73205081 110.000000 1.7776389 11.6666667 0.28867513

T13B 69 3 108.666667 1.52752523 145.333333 0.8082904 5.0000000 0.00000000

T14B 69 3 111.666667 0.57735027 144.133333 1.3316656 5.0000000 0.00000000

T15B 46 3 110.333333 1.52752523 151.933333 1.2055428 5.1666667 0.28867513

T16B 46 3 110.666667 1.52752523 140.866667 1.3012814 5.6666667 0.00577350

T17BB 0 3 102.333333 1.52752523 107.500000 1.3228757 7.3333333 0.28867513

T18BB 46 3 100.000000 1.00000000 121.066667 1.4468356 8.6666667 0.57735027

T19B 0 3 106.000000 0.00000000 137.266667 1.4047538 5.5000000 0.00000000

T1BB 46 3 103.000000 1.73205081 115.233333 1.7156146 10.5000000 0.50000000

T20BB 46 3 102.000000 1.00000000 119.933333 1.8147543 11.1666667 0.28867513

T21B 46 3 107.666667 2.08166600 141.333333 1.2701706 5.6666667 0.28867513

T22BB 0 3 99.333333 1.52752523 109.133333 2.0816660 8.0000000 0.86602540

T23B 0 3 112.000000 1.00000000 134.200000 1.5099669 4.8333333 0.57735027

T24B 69 3 109.666667 1.52752523 143.266667 2.3007245 6.1666667 0.28867513

T2BB 23 3 101.666667 1.15470054 122.233333 1.8502252 10.3333333 0.28867513

T3BB 69 3 101.666667 2.08166600 121.866667 1.7473790 10.5000000 0.86602540

T4BB 23 3 102.000000 1.00000000 110.266667 0.7023769 11.5000000 0.50000000

T5B 23 3 110.666667 2.30940108 138.666667 1.4189198 5.0666667 0.00577350

T6B 23 3 106.666667 1.15470054 139.400000 1.6000000 6.0000000 0.86602540

T7B 23 3 108.666667 2.08166600 109.533333 55.1979468 4.6666667 0.02886751

T8BB 23 3 100.333333 1.15470054 124.666667 0.9237604 11.4666667 0.05773503

T9BB 69 3 101.666667 1.15470054 126.066667 1.2858201 11.5000000 0.00000000

Level of Level of -----------LPP----------- ------------LH----------- -----------LAPP----------

trt NR N Mean Std Dev Mean Std Dev Mean Std Dev

T10BB 0 3 5.06666667 0.41633320 21.7333333 0.5773503 16.4266667 1.15759809

T11B 0 3 5.66666667 0.11547005 44.1333333 1.5011107 66.1166667 1.57665257

T12BB 69 3 5.33333333 0.11547005 26.8666667 0.1154701 30.2100000 0.50685304

T13B 69 3 5.13333333 0.50332230 48.6000000 1.0000000 49.7200000 0.32078030

T14B 69 3 5.66666667 0.11547005 50.0666667 0.4618802 72.6133333 1.00520313

T15B 46 3 5.73333333 0.61101009 47.6666667 0.9865766 80.8066667 1.06006289

T16B 46 3 4.93333333 0.30550505 43.6000000 1.9697716 52.8633333 0.22368132

T17BB 0 3 5.06666667 0.41633320 20.0666667 0.7023769 15.1833333 0.97140791

T18BB 46 3 5.13333333 0.11547005 17.0000000 10.4000000 16.7666667 6.65420418

T19B 0 3 6.40000000 1.21655251 36.8666667 0.6429101 62.2600000 0.85135187

T1BB 46 3 5.40000000 0.20000000 27.3333333 0.8326664 17.5066667 0.88262865

T20BB 46 3 5.00000000 0.20000000 24.2000000 0.6928203 19.5666667 1.11733313

T21B 46 3 6.53333333 1.79257729 45.2000000 0.8717798 57.9633333 0.68595432

T22BB 0 3 4.53333333 0.11547005 21.8000000 1.7776389 14.9166667 0.60144271

T23B 0 3 5.33333333 0.46188022 49.2666667 1.0263203 63.4933333 1.34433379

T24B 69 3 5.86666667 0.11547005 50.5333333 0.8082904 66.9800000 1.38097791

T2BB 23 3 5.06666667 0.11547005 27.6666667 0.8082904 20.9400000 0.51176166

T3BB 69 3 5.26666667 0.11547005 28.3333333 1.5534907 17.4200000 0.55000000

T4BB 23 3 5.20000000 0.00000000 27.1333333 1.2055428 15.7400000 0.36373067

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The GLM Procedure

Level of Level of -----------LPP----------- ------------LH----------- -----------LAPP----------

trt NR N Mean Std Dev Mean Std Dev Mean Std Dev

T5B 23 3 5.66666667 0.11547005 47.2000000 1.6370706 71.8900000 0.56320511

T6B 23 3 5.80000000 1.40000000 43.0666667 0.9018500 56.6433333 0.23671361

T7B 23 3 5.43333333 0.25166115 45.8000000 0.4000000 60.8133333 0.56871200

T8BB 23 3 7.13333333 2.57940562 26.2666667 0.9751068 15.0166667 0.90029625

T9BB 69 3 5.13333333 0.41633320 26.5666667 0.7637626 18.4733333 0.95928793

Level of Level of -----------LSR----------- ---------FHYtonha-------- ---------DMYtonha--------

trt NR N Mean Std Dev Mean Std Dev Mean Std Dev

T10BB 0 3 1.22000000 0.01000000 50.8333333 2.1262251 4.3166667 0.5860319

T11B 0 3 1.40333333 0.01527525 51.4166667 1.6645820 4.3733333 0.0208167

T12BB 69 3 1.11333333 0.00577350 64.5833333 0.8779711 4.3300000 0.0100000

T13B 69 3 1.22333333 0.00577350 53.7500000 1.5612495 4.2100000 0.0173205

T14B 69 3 1.41666667 0.01154701 59.1666667 1.1547005 4.0633333 0.0057735

T15B 46 3 1.25000000 0.01732051 44.5833333 1.7736497 4.0333333 0.0057735

T16B 46 3 1.30000000 0.00000000 56.6666667 1.3768926 3.3600000 0.0000000

T17BB 0 3 1.18666667 0.01154701 58.3333333 1.8763884 4.0300000 0.0100000

T18BB 46 3 5.74000000 7.74226711 37.2566667 31.1743907 22.0033333 29.2254706

T19B 0 3 1.13666667 0.02309401 40.0000000 1.5612495 3.0366667 0.0115470

T1BB 46 3 1.14333333 0.01527525 68.3333333 2.1842237 4.8933333 0.0115470

T20BB 46 3 1.23666667 0.00577350 54.1666667 1.7736497 3.9233333 0.0152753

T21B 46 3 1.35666667 0.01154701 57.5000000 1.7500000 3.7900000 0.0173205

T22BB 0 3 1.34000000 0.10535654 56.6666667 1.6645820 4.4866667 0.0152753

T23B 0 3 1.23333333 0.02081666 39.5833333 1.8763884 3.6466667 0.0115470

T24B 69 3 1.37000000 0.01000000 45.0000000 1.8027756 4.3333333 0.0208167

T2BB 23 3 1.25000000 0.00000000 58.7500000 1.7500000 4.8133333 0.0057735

T3BB 69 3 1.44333333 0.00577350 57.9166667 1.6072751 4.7300000 0.0264575

T4BB 23 3 1.33333333 0.01527525 59.5833333 1.7017148 4.2966667 0.0057735

T5B 23 3 1.36333333 0.00577350 57.4166667 2.0207259 3.4166667 0.0152753

T6B 23 3 1.43666667 0.01527525 45.0000000 2.0463382 3.8033333 0.0057735

T7B 23 3 1.20333333 0.00577350 50.0000000 0.4330127 3.0533333 0.0057735

T8BB 23 3 1.30666667 0.01154701 51.5833333 0.8779711 4.0633333 0.0152753

T9BB 69 3 1.32666667 0.00577350 52.0833333 3.6084392 4.9633333 0.0152753

Level of Level of -------------DSM------------- ------------Yldkg------------

trt NR N Mean Std Dev Mean Std Dev

T10BB 0 3 164.333333 0.5773503 26.6700000 0.0200000

T11B 0 3 165.666667 1.5275252 25.1400000 0.0173205

T12BB 69 3 161.333333 1.5275252 19.9466667 0.0152753

T13B 69 3 164.333333 2.0816660 23.3733333 0.0115470

T14B 69 3 165.333333 2.0816660 28.0233333 0.0404145

T15B 46 3 164.666667 1.5275252 36.7966667 0.0057735

T16B 46 3 165.000000 1.0000000 28.3666667 0.0057735

T17BB 0 3 164.333333 2.0816660 26.3666667 0.0057735

T18BB 46 3 111.043333 91.7236373 72.0200000 78.7909919

T19B 0 3 165.333333 1.5275252 24.6433333 0.0208167

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Level of Level of -------------DSM------------- ------------Yldkg------------

trt NR N Mean Std Dev Mean Std Dev

T1BB 46 3 163.000000 1.0000000 42.5433333 0.0230940

T20BB 46 3 164.333333 2.0816660 18.8933333 0.0208167

T21B 46 3 166.333333 1.1547005 21.3133333 0.0251661

T22BB 0 3 163.333333 1.5275252 16.9166667 0.0152753

T23B 0 3 164.000000 2.6457513 20.8366667 0.0152753

T24B 69 3 165.333333 2.3094011 23.9700000 0.0173205

T2BB 23 3 159.333333 2.0816660 48.6600000 0.0264575

T3BB 69 3 161.000000 1.0000000 32.8700000 0.0264575

T4BB 23 3 159.333333 1.5275252 25.8133333 0.0057735

T5B 23 3 164.666667 2.0816660 42.4700000 0.0173205

T6B 23 3 164.666667 1.5275252 23.4733333 0.0115470

T7B 23 3 166.333333 2.0816660 26.4766667 0.0057735

T8BB 23 3 163.333333 1.5275252 34.3700000 0.0200000

T9BB 69 3 164.333333 0.5773503 30.9233333 0.0152753