**DATA** A;

INPUT WP SP $ BLK TRT FUNG DS YIELD;

CARDS;

101 A 1 1 0 43 205

101 B 1 1 1 1 399

102 A 1 2 1 2 426

102 B 1 2 0 92 102

103 A 1 3 1 2 385

103 B 1 3 0 7 355

201 A 2 2 1 4 412

201 B 2 2 0 75 224

202 A 2 3 1 3 425

202 B 2 3 0 10 352

203 A 2 1 0 27 330

203 B 2 1 1 2 375

301 A 3 1 1 2 420

301 B 3 1 0 47 303

302 A 3 3 0 12 342

302 B 3 3 1 1 395

303 A 3 2 0 63 222

303 B 3 2 1 3 393

401 A 4 3 0 12 326

401 B 4 3 1 1 400

402 A 4 1 0 32 289

402 B 4 1 1 1 418

403 A 4 2 1 2 371

403 B 4 2 0 53 175

;

**PROC** **MIXED** COVTEST METHOD=TYPE3;

CLASS BLK TRT FUNG;

MODEL DS=TRT|FUNG/RESIDUAL;

RANDOM BLK BLK\*TRT;

LSMEANS TRT|FUNG/DIFF;

**PROC** **MIXED** COVTEST METHOD=TYPE3;

CLASS BLK TRT FUNG;

MODEL YIELD=TRT|FUNG/RESIDUAL;

RANDOM BLK BLK\*TRT;

LSMEANS TRT|FUNG/DIFF;

**PROC** **REG**;

MODEL YIELD=DS;

**DATA** B;

SET A;

RY1=YIELD/**399.23843**;

**PROC** **REG**;

MODEL RY1=DS;

**PROC** **SORT** DATA=A; BY BLK TRT FUNG;

**PROC** **TRANSPOSE** DATA=A OUT=T1A; BY BLK TRT;

VAR YIELD;

**DATA** T2A;

SET T1A;

RY2=COL1/COL2;

DROP \_NAME\_ COL1 COL2;

**PROC** **TRANSPOSE** DATA=A OUT=T1B; BY BLK TRT;

VAR DS;

**DATA** T2B;

SET T1B;

CDS=COL1;

DROP \_NAME\_ COL1 COL2;

**DATA** T3;

MERGE T2A T2B;

BY BLK TRT;

**PROC** **PRINT**;

**PROC** **MIXED** COVTEST;

CLASS BLK TRT;

MODEL RY2=TRT/RESIDUAL;

RANDOM BLK;

LSMEANS TRT/DIFF;

**PROC** **REG**;

MODEL RY2=CDS;

**RUN**;