**DATA** A;

INPUT PLOT AN T BLK TRT PCTSEV;

Y=PCTSEV/**100**;

YSTAR=LOG(Y/(**1**-Y));

WT=Y\*(**1**-Y);

DROP AN;

CARDS;

101 1 0 1 2 9

102 1 0 1 1 6

103 1 0 1 3 2

201 1 0 2 2 7

202 1 0 2 3 5

203 1 0 2 1 3

301 1 0 3 3 4

302 1 0 3 2 2

303 1 0 3 1 6

401 1 0 4 1 1

402 1 0 4 2 1

403 1 0 4 3 4

101 2 7 1 2 4

102 2 7 1 1 6

103 2 7 1 3 10

201 2 7 2 2 2

202 2 7 2 3 5

203 2 7 2 1 3

301 2 7 3 3 11

302 2 7 3 2 6

303 2 7 3 1 4

401 2 7 4 1 8

402 2 7 4 2 3

403 2 7 4 3 6

101 3 14 1 2 8

102 3 14 1 1 20

103 3 14 1 3 15

201 3 14 2 2 13

202 3 14 2 3 12

203 3 14 2 1 14

301 3 14 3 3 15

302 3 14 3 2 8

303 3 14 3 1 25

401 3 14 4 1 17

402 3 14 4 2 14

403 3 14 4 3 49

101 4 21 1 2 24

102 4 21 1 1 38

103 4 21 1 3 61

201 4 21 2 2 31

202 4 21 2 3 42

203 4 21 2 1 79

301 4 21 3 3 48

302 4 21 3 2 23

303 4 21 3 1 86

401 4 21 4 1 52

402 4 21 4 2 45

403 4 21 4 3 56

101 5 28 1 2 28

102 5 28 1 1 89

103 5 28 1 3 44

201 5 28 2 2 41

202 5 28 2 3 49

203 5 28 2 1 79

301 5 28 3 3 45

302 5 28 3 2 47

303 5 28 3 1 63

401 5 28 4 1 94

402 5 28 4 2 52

403 5 28 4 3 64

101 6 35 1 2 36

102 6 35 1 1 77

103 6 35 1 3 88

201 6 35 2 2 42

202 6 35 2 3 69

203 6 35 2 1 71

301 6 35 3 3 43

302 6 35 3 2 39

303 6 35 3 1 84

401 6 35 4 1 97

402 6 35 4 2 47

403 6 35 4 3 76

;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM BLK;

\*WEIGHT WT;

REPEATED/SUBJECT=BLK\*TRT TYPE=CS R=**1**,**2**,**3** RCORR=**1**,**2**,**3**;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM BLK;

WEIGHT WT;

REPEATED/SUBJECT=BLK\*TRT TYPE=CS R=**1**,**2**,**3** RCORR=**1**,**2**,**3**;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM INT T/SUBJECT=BLK\*TRT GROUP=TRT TYPE=CS;

REPEATED/SUBJECT=BLK\*TRT GROUP=TRT;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM BLK;

\*WEIGHT WT;

REPEATED/SUBJECT=BLK\*TRT TYPE=CSH R=**1**,**2**,**3** RCORR=**1**,**2**,**3**;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM BLK;

WEIGHT WT;

REPEATED/SUBJECT=BLK\*TRT TYPE=CSH R=**1**,**2**,**3** RCORR=**1**,**2**,**3**;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM INT T/SUBJECT=BLK\*TRT GROUP=TRT TYPE=CSH;

REPEATED/SUBJECT=BLK\*TRT GROUP=TRT;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM BLK;

\*WEIGHT WT;

REPEATED/SUBJECT=BLK\*TRT TYPE=AR(**1**) R=**1**,**2**,**3** RCORR=**1**,**2**,**3**;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM BLK;

WEIGHT WT;

REPEATED/SUBJECT=BLK\*TRT TYPE=AR(**1**) R=**1**,**2**,**3** RCORR=**1**,**2**,**3**;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM INT T/SUBJECT=BLK\*TRT GROUP=TRT TYPE=AR(**1**);

REPEATED/SUBJECT=BLK\*TRT GROUP=TRT;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM BLK;

\*WEIGHT WT;

REPEATED/SUBJECT=BLK\*TRT TYPE=UN R=**1**,**2**,**3** RCORR=**1**,**2**,**3**;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM BLK;

WEIGHT WT;

REPEATED/SUBJECT=BLK\*TRT TYPE=UN R=**1**,**2**,**3** RCORR=**1**,**2**,**3**;

**PROC** **MIXED** DATA=A COVTEST;

CLASS BLK TRT;

MODEL YSTAR=TRT|T/SOLUTION DDFM=BETWITHIN RESIDUAL;

RANDOM INT T/SUBJECT=BLK\*TRT GROUP=TRT TYPE=UN;

REPEATED/SUBJECT=BLK\*TRT GROUP=TRT;

**RUN**;