

```

1      OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69      *AST 504
70
71      Sub-sampling .
72      Chapter 5, from Keuhl .
73
74
75
76      ;
77      DATA MYDATA ;
78
79      SEED = 19997 ;
80
81
82      DO TRT = 1 TO 3 ;
83      DO PLOT = 1 TO 4 ;
84      PPP = 2.8*RANNOR(SEED ) ;
85      DO PLANT = 1 TO 6 ;
86
87      WT = 1.2* TRT + PPP + 1.8*RANNOR(SEED ) ;
88      WT = ROUND ( WT , .2 ) ;
89      OUTPUT;
90
91      END;
92      END;
93      END;
94
95
96
97      options ls = 79 formdlm = '_';
98
99
100

```

NOTE: The data set WORK.MYDATA has 72 observations and 6 variables.

NOTE: DATA statement used (Total process time):

```

real time          0.00 seconds
user cpu time      0.00 seconds
system cpu time    0.01 seconds
memory             672.37k
OS Memory          30372.00k
Timestamp          12/13/2021 03:43:41 AM
Step Count                     235  Switch Count   3
Page Faults                    0
Page Reclaims                  90
Page Swaps                     0
Voluntary Context Switches     17
Involuntary Context Switches   0
Block Input Operations         0
Block Output Operations       264

```

```

101      proc glm data = mydata ;
102      class trt plot ;
103      model wt = trt plot( trt ) / ss3 ;
104
105      test h = trt e = plot( trt ) ;
106      means trt / lsd lines e = plot( trt ) ;
107
108      * plot nested in trt meaning they are random
109      e = plot (trt) reset the error term . Telling sas to use the error
109      ! df

```

```
110
111     class example
112     proc glm data
113     class spray tree
114     model wt = spray tree(spray)/ ss3 .. tree nested in spray
115     test h= spray e = tree (spray).... reset the error term again
116     means spray / lsd lines e = tree(spray)
117
118     ;
119     run;
```

NOTE: Means from the MEANS statement are not adjusted for other terms in the model. For adjusted means, use the LSMEANS statement.

```
120
121
122     OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
132
```