```
/*************************************************************/
/*  Timing of Nitrogen Fertilization of Wheat                */
/*  Example 8.2 from Kuehl, R.O.(2000)                       */
/*  Design of Experiments: Statistical Principles of         */
/*  Research Design and Analysis.                            */
/*  2nd Edition.  Duxbury Press.  CA, USA                    */
/*************************************************************/

Data rcbd;
  input block trmt Nitrogen;
  datalines;
1 1 34.98
1 2 40.89
1 3 42.07
1 4 37.18
1 5 37.99
1 6 34.89
2 1 41.22
2 2 46.69
2 3 49.42
2 4 45.85
2 5 41.99
2 6 50.15
3 1 36.94
3 2 46.65
3 3 52.68
3 4 40.23
3 5 37.61
3 6 44.57
4 1 39.97
4 2 41.9
4 3 42.91
4 4 39.2
4 5 40.45
4 6 43.29
;
Run;

/* Proc GLM Statements */
Proc glm data=rcbd;
    class block trmt;
    model Nitrogen = block trmt;
    random block;
    title "Proc GLM Results";
Run;
Quit;


/* Proc MIXED Statements with an LSMEANS for treatment differences */
Proc mixed data=rcbd covtest;
    class block trmt;
    model Nitrogen = trmt;
    random block;
    title "Proc MIXED Results";
```

```
Run;


/* Proc GLIMMIX Statements with an LSMEANS for treatment differences */
Proc glimmix data=rcbd;
    class block trmt;
    model Nitrogen = trmt;
    random block;
    title "Proc GLIMMIX Results";
Run;
```