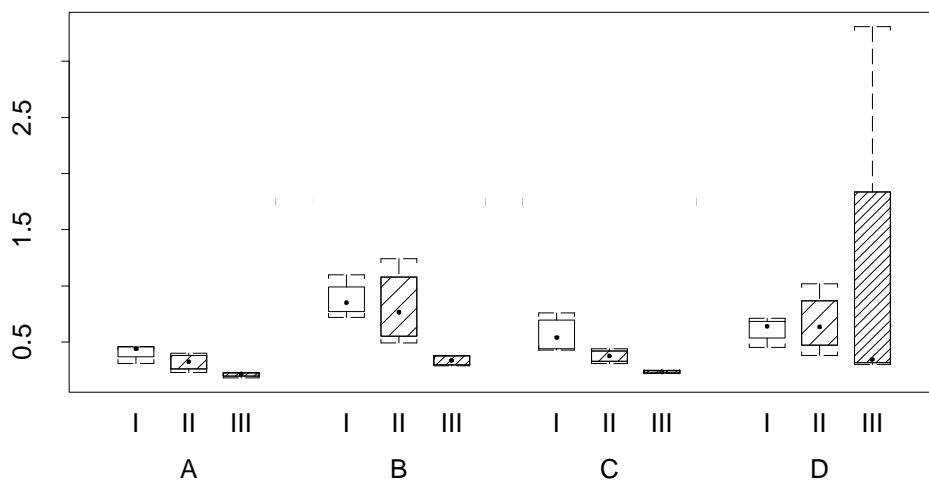


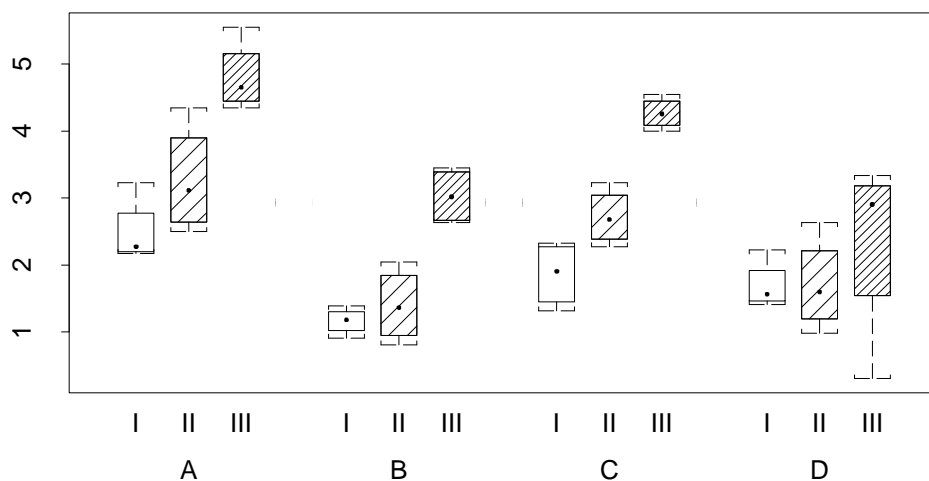
## Factorial Experiments

Twelve treatments consisting of all combinations of 3 types of poison with 4 methods of administration were assigned in a completely randomized experiment to 48 rats, 4 rats per treatment combination. Survival times in minutes from time of administration were recorded.

Survival Time (min.)



1/(Survival Time)



Factor Means

```

-----
method | mean(invsurv)
-----+-----
A | 3.519345
B | 1.861943
C | 2.94721
D | 1.917366
-----
    
```

```

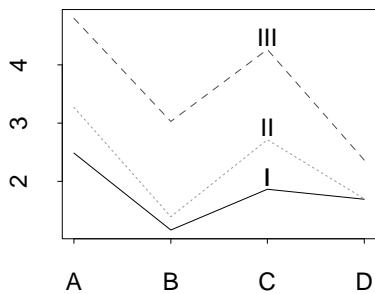
-----
poison | mean(invsurv)
-----+-----
I | 1.800688
II | 2.269329
III | 3.614382
-----
    
```

Analysis of Variance Table

Number of obs = 48      R-squared = 0.7971  
 Root MSE = .629605      Adj R-squared = 0.7352

Source	Partial SS	df	MS	F	Prob > F
Model	56.0761607	11	5.09783279	12.86	0.0000
method	23.6463402	3	7.8821134	19.88	0.0000
poison	28.3641519	2	14.182076	35.78	0.0000
method*poison	4.06566861	6	.677611435	1.71	0.1470
Residual	14.2705052	36	.396402923		
Total	70.346666	47	1.49673757		

Profile Plot



Hypothetical Profile Plot

