

Review of Randomized Complete Block Designs

Respond to the following questions individually then discuss your answers as a group. You should hand in your individual response. We will discuss your group responses and then I will lecture on other topics.

1. At a local farm, USGS soil maps identified 5 different soil types. Within each irregularly-shaped plot defined by a single soil type, 6 different fertilizer/watering regimens were applied. What is the block?
2. Suppose you had an experiment with 5 blocks and 4 treatments. Explain how to randomize treatments for a RCBD.
3. Construct and run SAS code to analyze the following RCBD data. Is the test on Block significant? In general, why might a test on Block be inappropriate?

Treatment	Block			
	1	2	3	4
A	8.7	8.9	9.2	8.3
B	8.8	8.4	9.6	8.3
C	7.4	8.0	8.9	7.9
D	7.9	7.3	9.0	7.6
E	10.2	9.3	11.3	9.5