

## 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? When you studied block designs in previous classes, did you discuss whether it was appropriate to test for block effects or not? Yandell refers to this issue only obliquely, but some texts discuss it in more detail.

	Block			
Treatment	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