Week 10 – Two-Way ANOVA

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| Answers in different color text |
| It is **really** helpful for me if you make your answers in a different color, so I can easily pick them out! |

**In a completely randomized design (CRD), how are the treatments assigned?**

**What is a nuisance factor?**

**Why would you want to block based on a nuisance factor?**

**In the example of fertilizer application on wheat fields, why is each fertilizer rate applied only once within each field?**

**In a randomized complete block design (RCBD), how are the treatments assigned?**

**Why should you expect for a “good” blocking variable to have a small p-value in the ANOVA table?**

**What can you say about the blocking variable if its p-value (from the ANOVA table) is large?**

**What happens to the error (residual) sum of squares if you ignore a blocking variable? Why is this bad?**

**Suppose you’re part of a research team investigating the efficacy of a newly designed** [**beta blocker**](https://en.wikipedia.org/wiki/Beta_blocker)**. What are two variables you believe would be important to block on?**

**How are treatments assigned in a Latin square design?**