

## Agronomy 526 Homework

**Due: 4/19/22**

1. Assume you have been contracted by USAID to design and conduct an experiment evaluating 12 genotypes of tropical sorghums as potential biomass crops for marginal lands. Another factor of interest is how biomass yields compare when the sorghums are planted as a full-season crop or as a double-crop following wheat. You have two experimental farms available and three years to complete your research.
  - a. Develop an efficient design for this experiment showing your layout, model and an analysis of variance table with df and expected mean squares.
  - b. Explain the reasoning for the design you have developed.
  - c. Write out the SAS code that you would use to analyze the results of the experiment starting with the PROC MIXED step.