

## Agronomy 526 Homework

**Due: 4/26/22**

1. The following data are from an experiment designed to evaluate six sources of nitrogen applied at a rate of 100 lb/acre on yield of sugar beets (tons/acre). The six treatments were: A) ammonium sulfate, B) ammonium nitrate, C) urea, D) Ca nitrate, E) Na nitrate, and F) control (no N). The design was a Latin square.

	<b>Column</b>											
<b>Row</b>	1	2	3	4	5	6	1	2	3	4	5	6
1	28.2	F	29.1	D	32.1	A	33.1	B	31.1	E	32.4	C
2	31.0	E	29.5	B	29.4	C	24.8	F	33.0	D	30.6	A
3	30.6	D	28.8	E	21.7	F	30.8	C	31.9	A	30.1	B
4	33.1	C	30.4	A	28.8	B	31.4	D	26.7	F	31.9	E
5	29.9	B	25.8	F	30.3	E	30.3	A	33.5	C	32.3	D
6	30.8	A	29.7	C	27.4	D	29.1	E	30.7	B	21.4	F

- a. Perform the analysis of variance.
- b. Use contrasts where appropriate to compare treatment effects.
- c. Compare treatment means using an LSD.
- d. Interpret the results.