Agronomy 526 Homework

Due: 5/3/22

1. The following data are from a soybean variety trial. The design was a simple lattice.

Block	Rep 1 Variety	Rep 1 Yield	Rep 2 Variety	Rep 2 Yield
1	1	36	1	54
1	2	37	6	43
1	3	35	11	54
1	4	38	16	41
1	5	36	21	38
2	6	46	2	51
2	7	42	7	41
2	8	42	12	44
2	9	43	17	41
2	10	38	22	53
3	11	47	3	46
3	12	37	8	34
3	13	37	13	42
3	14	39	18	42
3	15	44	23	42
4	16	48	4	47
4	17	46	9	40
4	18	43	14	60
4	19	43	19	39
4	20	44	24	53
5	21	44	5	45
5	22	45	10	45
5	23	41	15	52
5	24	44	20	46
5	25	44	25	49

a. Perform the analysis of variance.

b. Calculate the standard error for comparing means in the same block.

c. Calculate the standard error for comparing means in different blocks.

d. Calculate the efficiency of the lattice design relative to RCBD.

e. Calculate adjusted means and interpret the results.