

Appendix A: Tables and Figures

Radish/Rye 101	Radish 201	Radish/Clover 301
Zero Control 102	Radish/Oat 202	Radish/Oats 302
Control 103	Zero Control 203	Control 303
Rye 104	Indy 204	Radish/Rye 304
Radish/Oat 105	Radish/Clover 205	Zero Control 305
Radish/Clover 106	Control 206	Radish 306
Indy 107	Radish/Rye 207	Indy 307
Radish 108	Rye 208	Rye 308

Radish/Rye 401	Radish 501	Radish/Clover 601
Zero Control 402	Radish/Oat 502	Radish/Oats 602
Control 403	Zero Control 503	Control 603
Rye 404	Indy 504	Radish/Rye 604
Radish/Oat 405	Radish/Clover 505	Zero Control 605
Radish/Clover 406	Control 506	Radish 606
Indy 407	Radish/Rye 507	Indy 607
Radish 408	Rye 508	Rye 608

Figure 1. Map of project plots. Left block are plots that received spring applied N on the right are plots that received fall applied N. Plots labeled zero control did not receive N in either the fall or spring.



Image 1: Cover Crop Applicator

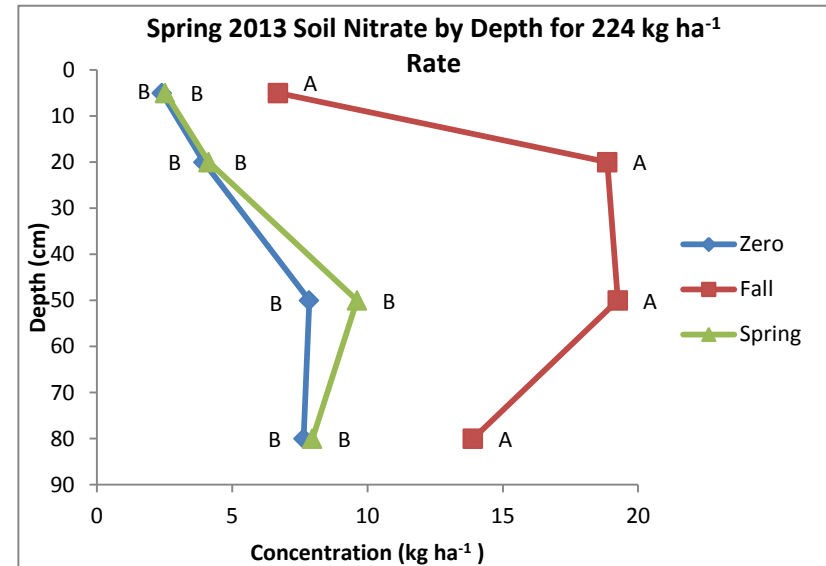
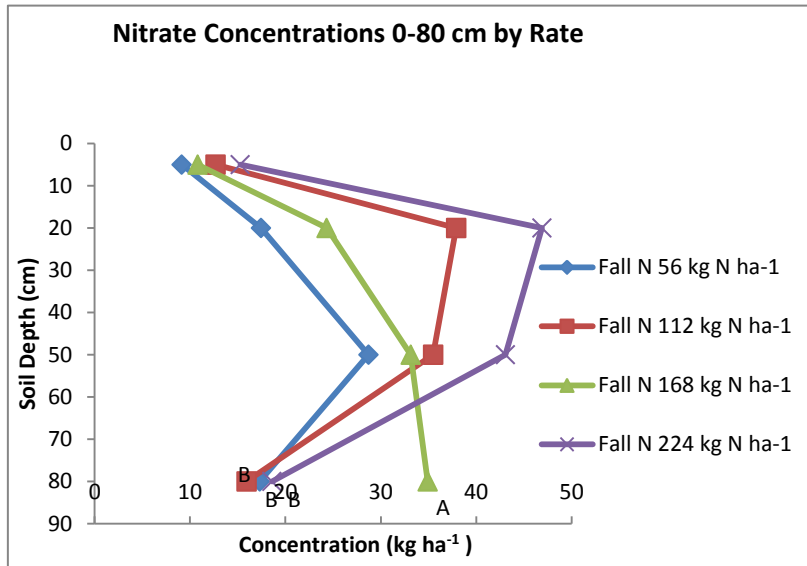


Figure 2a(left) and 2b(right). Soil Nitrate by depth in the fall (05/20/13).

Capital letters indicate a statistical difference in nitrate amount at individual depths at an alpha level of 0.05.

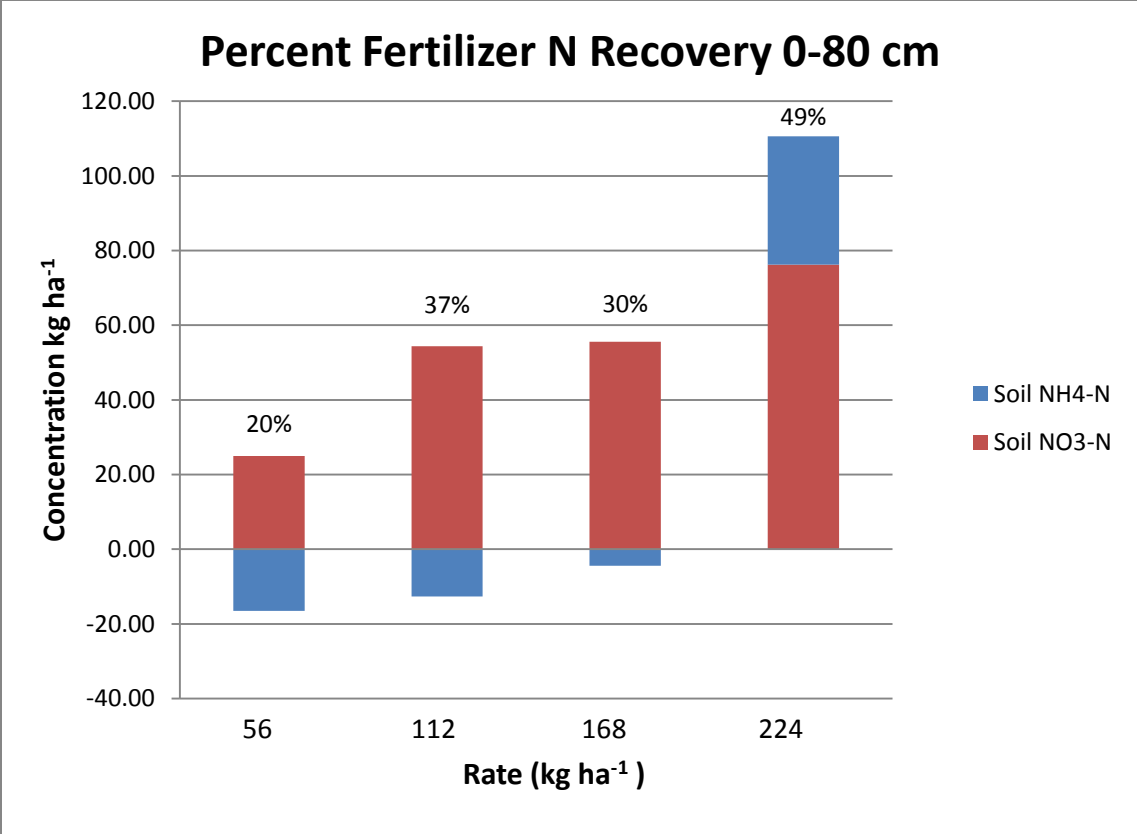


Figure 3: Percent fertilizer N recovery for soil samples collected 5/20/2013. These values were obtained by subtracting the average control values from each plot. The values below zero indicate that the control had more ammonium than the treatments. This indicates that all of the ammonium in those treatments had already been converted to nitrate.

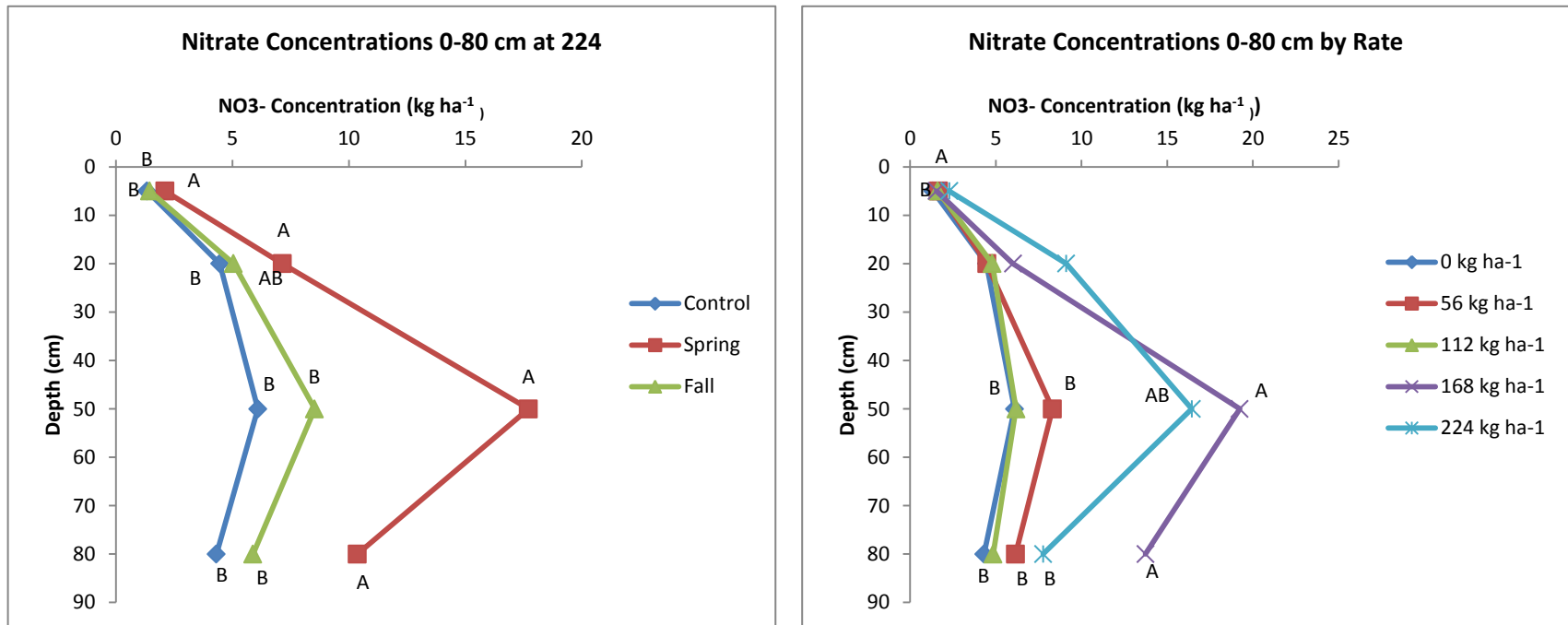


Figure 4a(left) and 4b(right). Soil Nitrate by depth in the fall (11/14/13).

Capital letters indicate a statistical difference in nitrate amount at individual depths at an alpha level of 0.05.

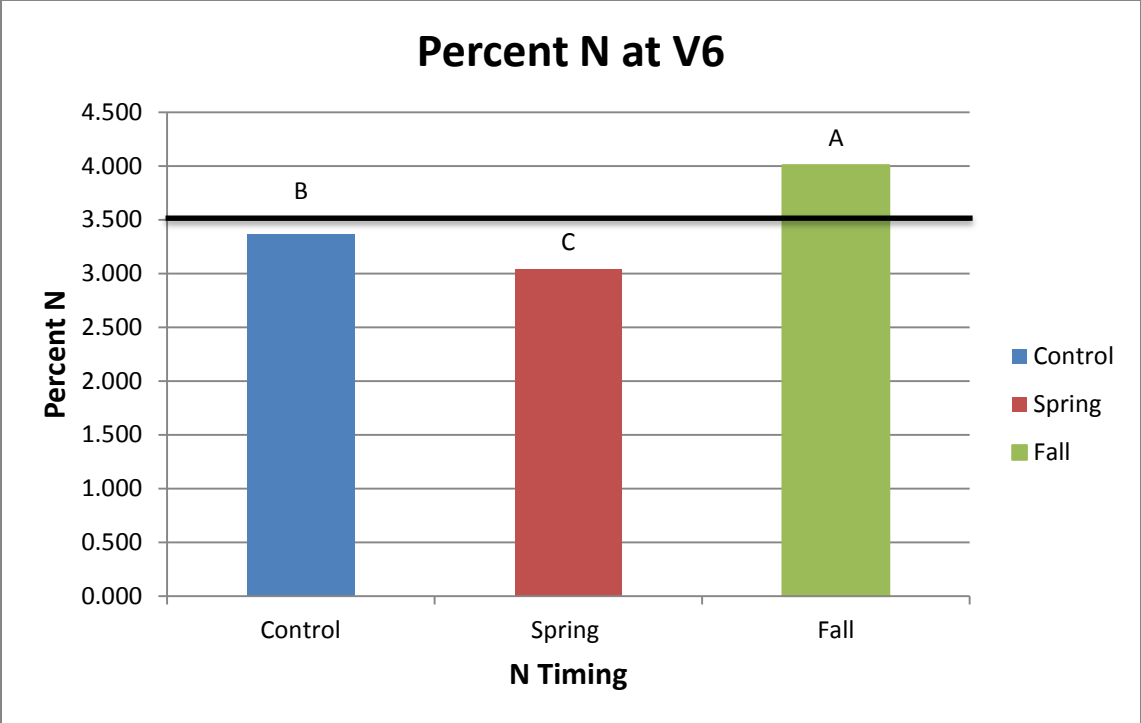


Figure 5: Percent N of the tissue analysis at V6 collected on 6/25/2013. Different letters indicate significance at an alpha level of 0.05. The black line at 3.5% indicates the deficient/sufficient line for corn at this growth

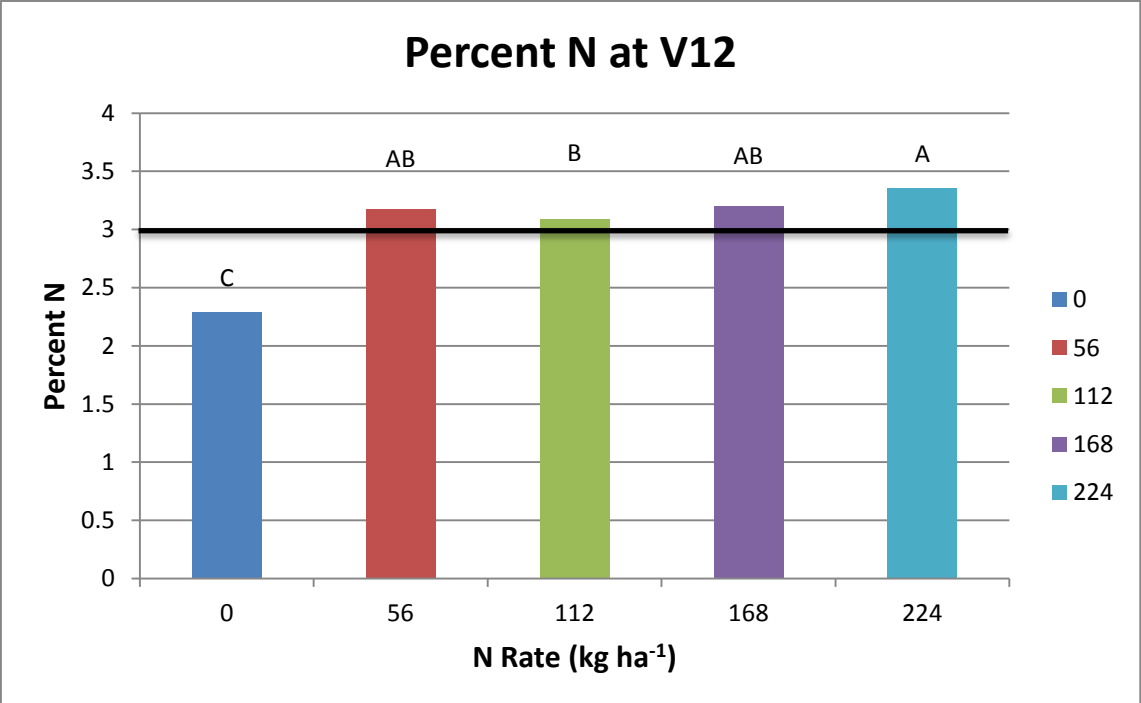


Figure 6: Percent N of the tissue analysis at V12 collected on 7/16/2013. Different letters indicate significance at an alpha level of 0.05. The black line at 3% indicates the deficient/sufficient line for corn at this growth stage.

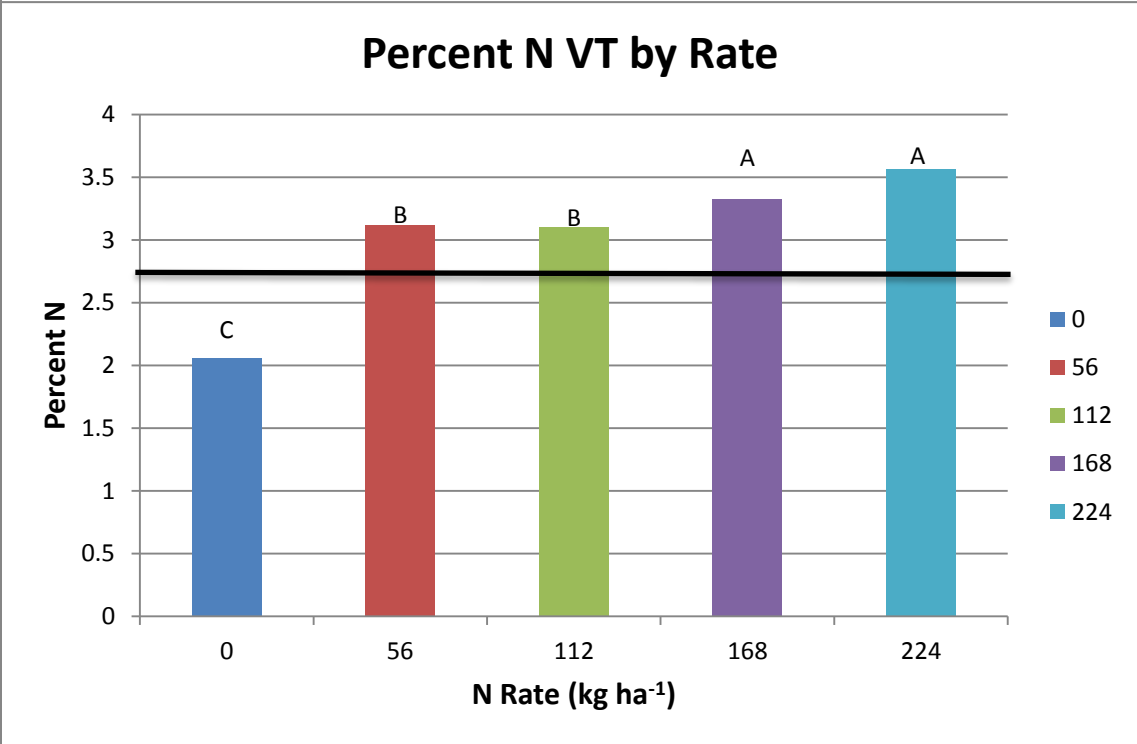
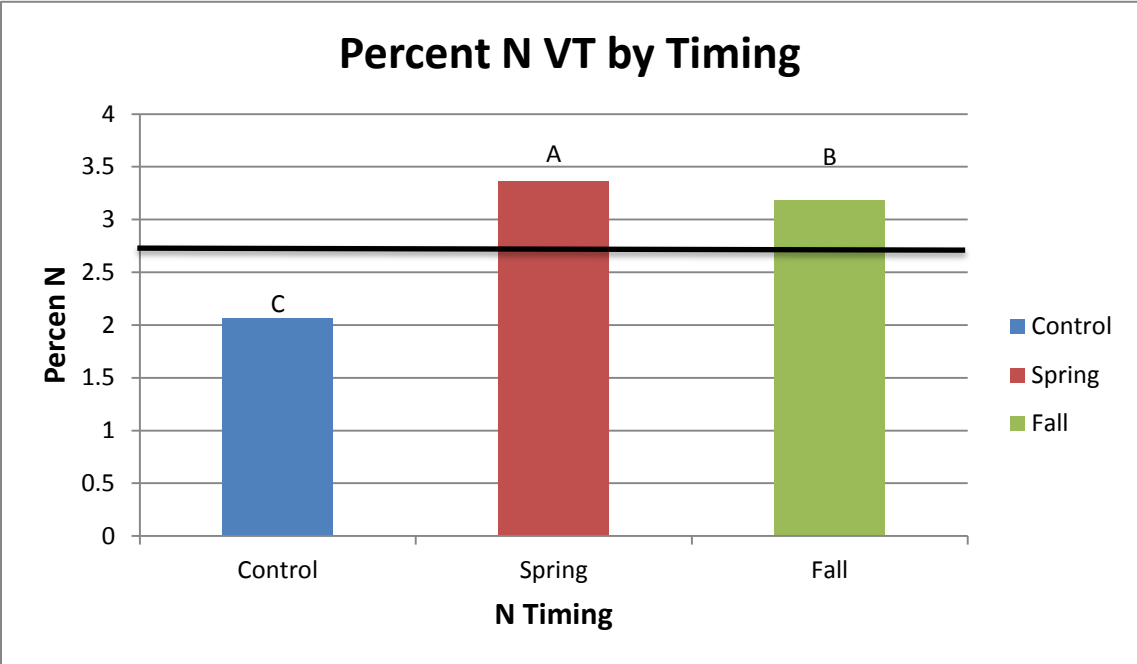


Figure 7: Percent N of the tissue analysis at VT collected on 7/24/2013. Different letters indicate significance at an alpha level of 0.05. The black line at 2.7% indicates the deficient/sufficient line for corn at this growth stage.

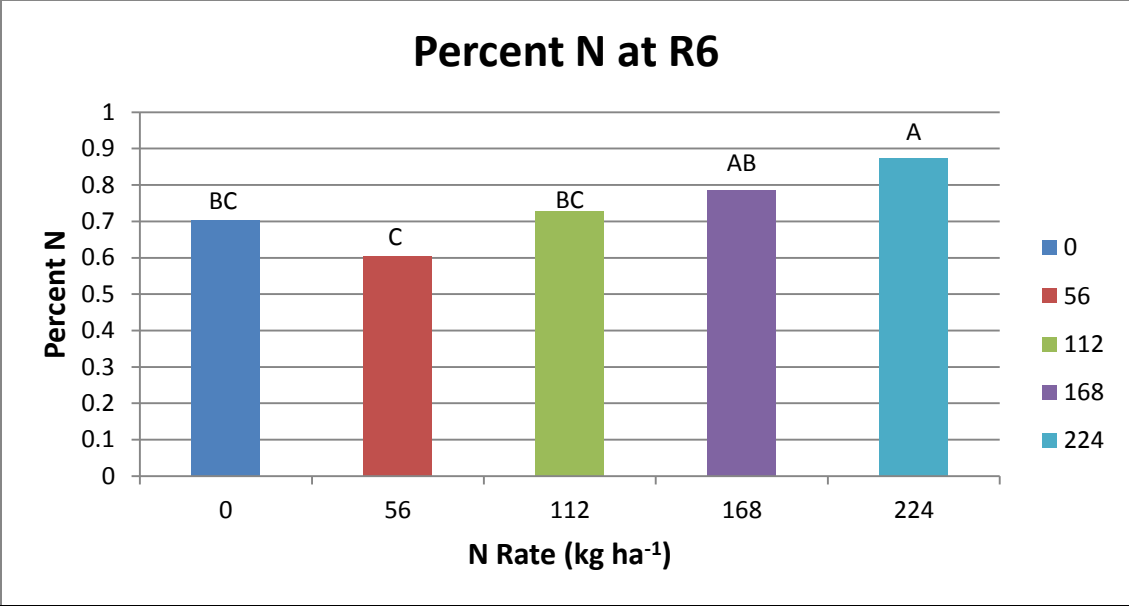


Figure 8: Percent N of the tissue analysis at R6 collected on 7/24/2013. No significant differences between treatments were observed.

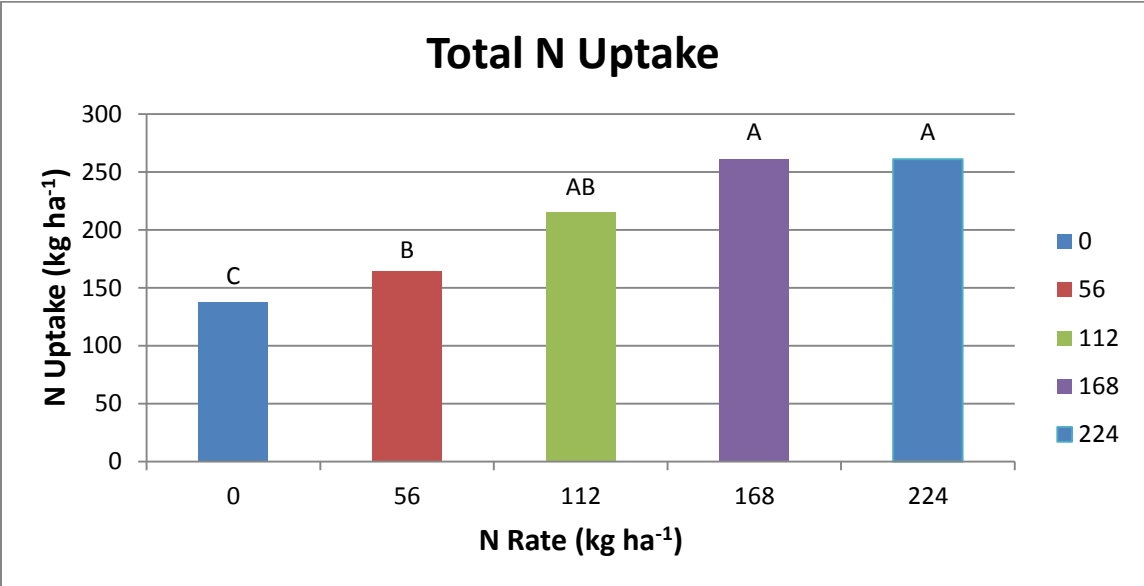


Figure 9: Total N uptake at R6. Different letters indicate significance at an alpha level of 0.05.

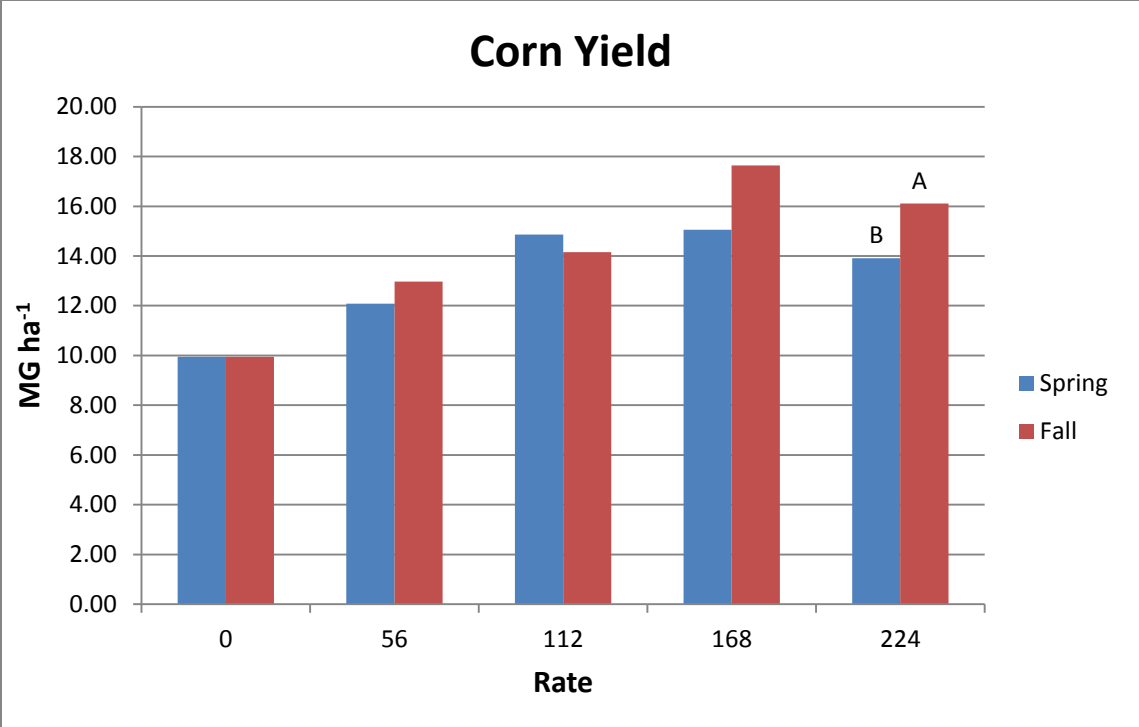


Figure 10: Grain yield (MG ha⁻¹) by rate (kg ha⁻¹) adjusted to 15.5% moisture content. Different letters indicate significance at an alpha level of 0.05.

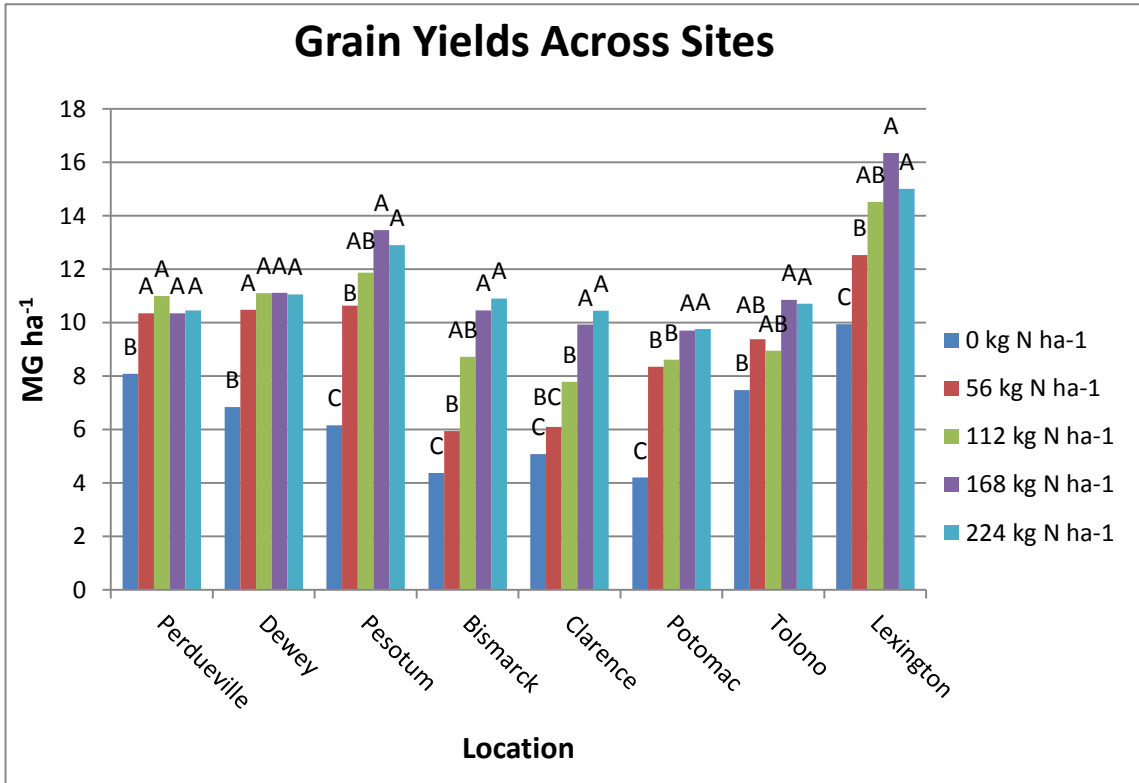


Figure 11: Grain yield (MG ha⁻¹) by location and N application rate within each location. Different letters at each location rate indicates a significant difference at an alpha level of 0.05.