

# Evaluation of Greenseeker for Variable Rate Nitrogen Application

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## Procedure

Four treatments were established in 2008 in an irrigated location at the Tennessee Valley Regional Research and Extension Center in Belle Mina, AL. Greenseeker data was collected four times during the growing season, along with plant tissue samples for nutrient analysis, plant heights and SPAD meter readings at georeferenced locations.

This project is part of an effort to conduct optical sensor tests with common data sets across the Cotton Belt.

## Conclusions

- The data below only accounts for the straight replication of N rates.
- The *Standard* treatment yielded highest and had the highest spad meter readings in this initial analysis, which indicates that this recommendation is appropriate.

## Future

A spatial analysis is underway to compare the yield at specific points with the Greenseeker reading at that location. Plant tissue data will also be correlated with yield, spad meter and Greenseeker readings.

## Treatments

Treatment #	Name	Pre-plant N (lbs/ac)	Sidedress N (lbs/ac)	Yield (lbs/acre)
#1	N Rich	150	0	3618
#2	No side	50	0	2951
#3	Standard	70	50	3718
#4	High Side	50	100	3555

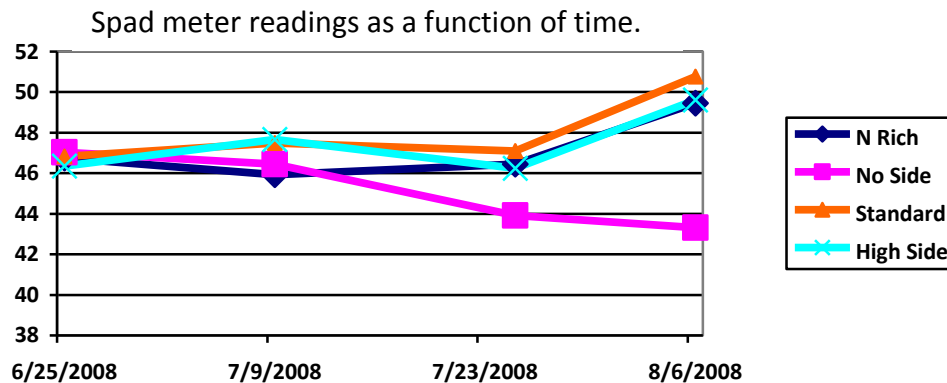


Figure 1. Spad meter readings for 4 periods during the growing season.