

USING NDVI AS A PREDICTOR OF COTTON PLANT HEIGHT FOR REAL-TIME SENSOR-BASED VARIABLE RATE APPLICATION OF GROWTH REGULATORS

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SUMMARY

Variable rate application of growth regulators could be a cost cutting means for cotton producers. One proposed method for variable rate application is using crop sensors to estimate cotton height and excessive growth. Small plots in Oklahoma and Tennessee were used to determine the relationship between the normalized difference vegetative index (NDVI) measured with sensors and plant height. The relationship between NDVI measured with optical sensors and plant height was evident early in the growing season. However NDVI and plant height lose correlation as the plant matures and the crop canopy begins to close.