Seed Treatments to Manage Insect and Nematode Pests in Cotton: A Focus on Thrips

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Efficacy of Seed Treatments Against Thrips

- Thrips occurrence in untreated plots
- Thrips efficacy changes due to rate increases
- Thrips efficacy changes due to the addition of a nematicide
- Using GreenSeeker NDVI for plant vigor ratings

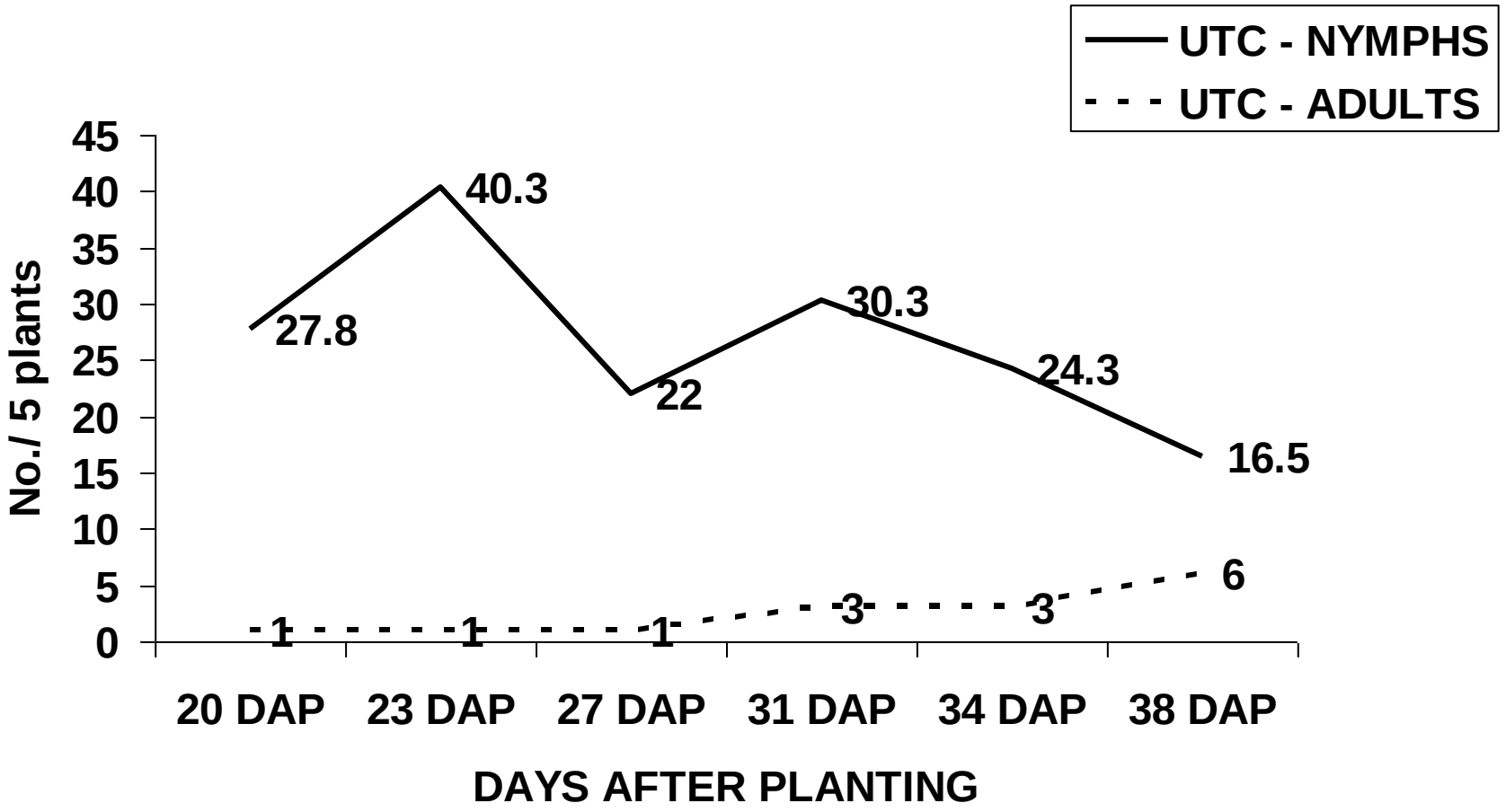


Fig.1 Thrips Occurrence In Untreated Plots

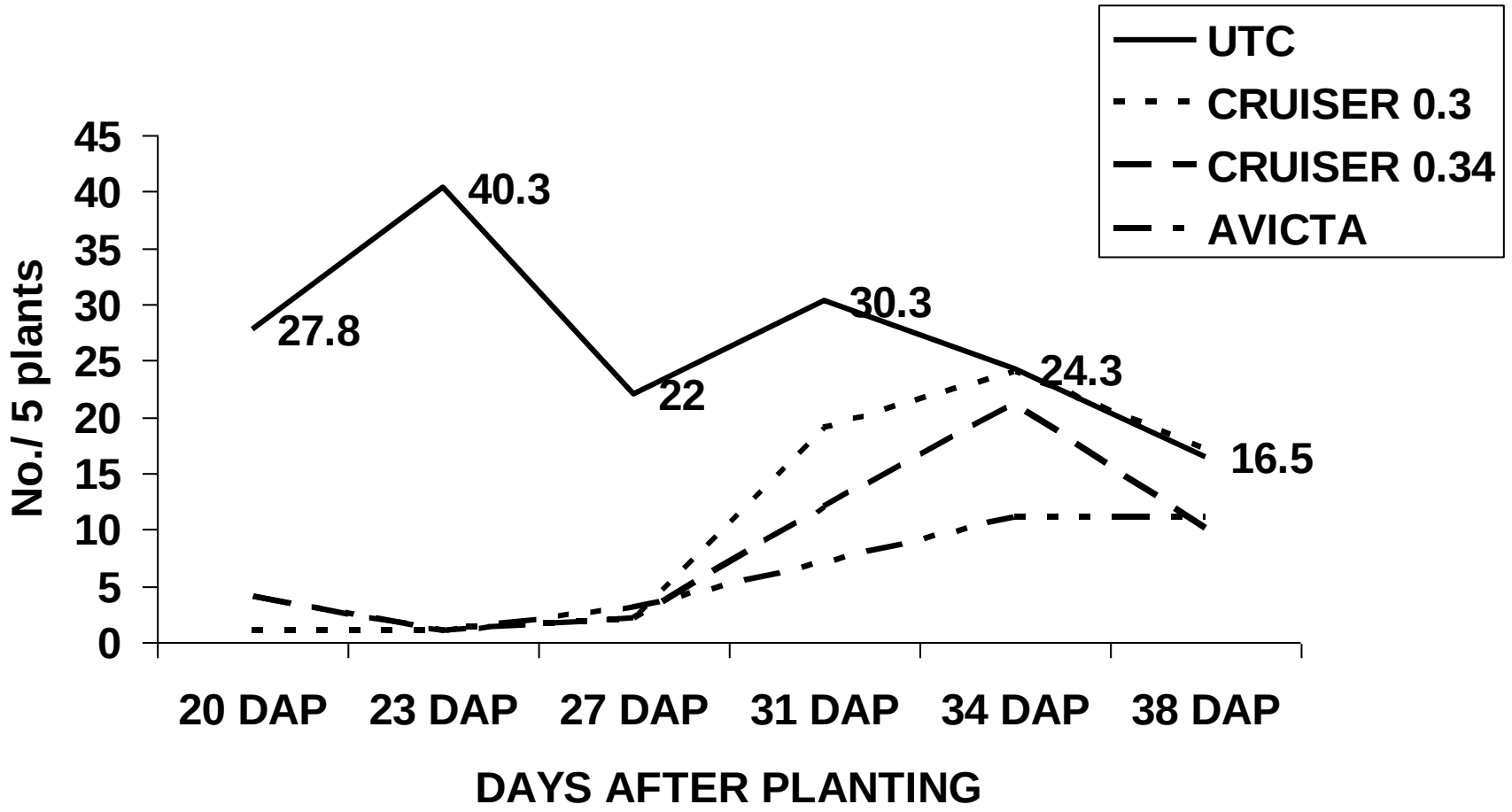
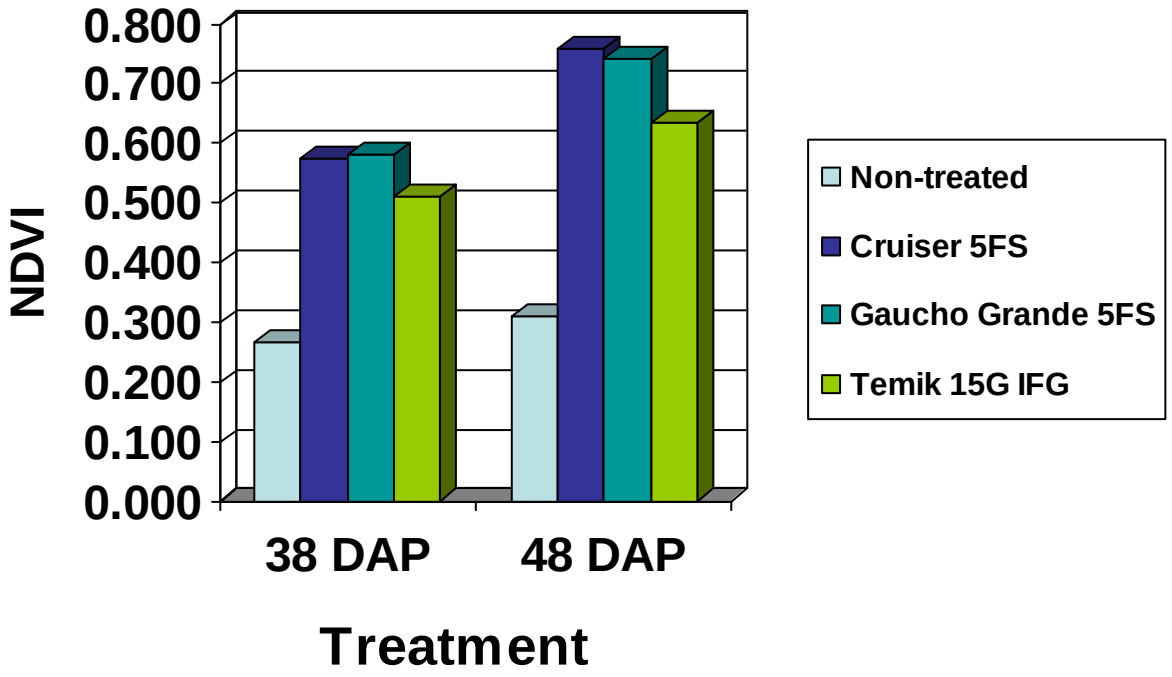


Fig. 2 Efficacy of Cruiser Rates and AVICTA Complete PAC

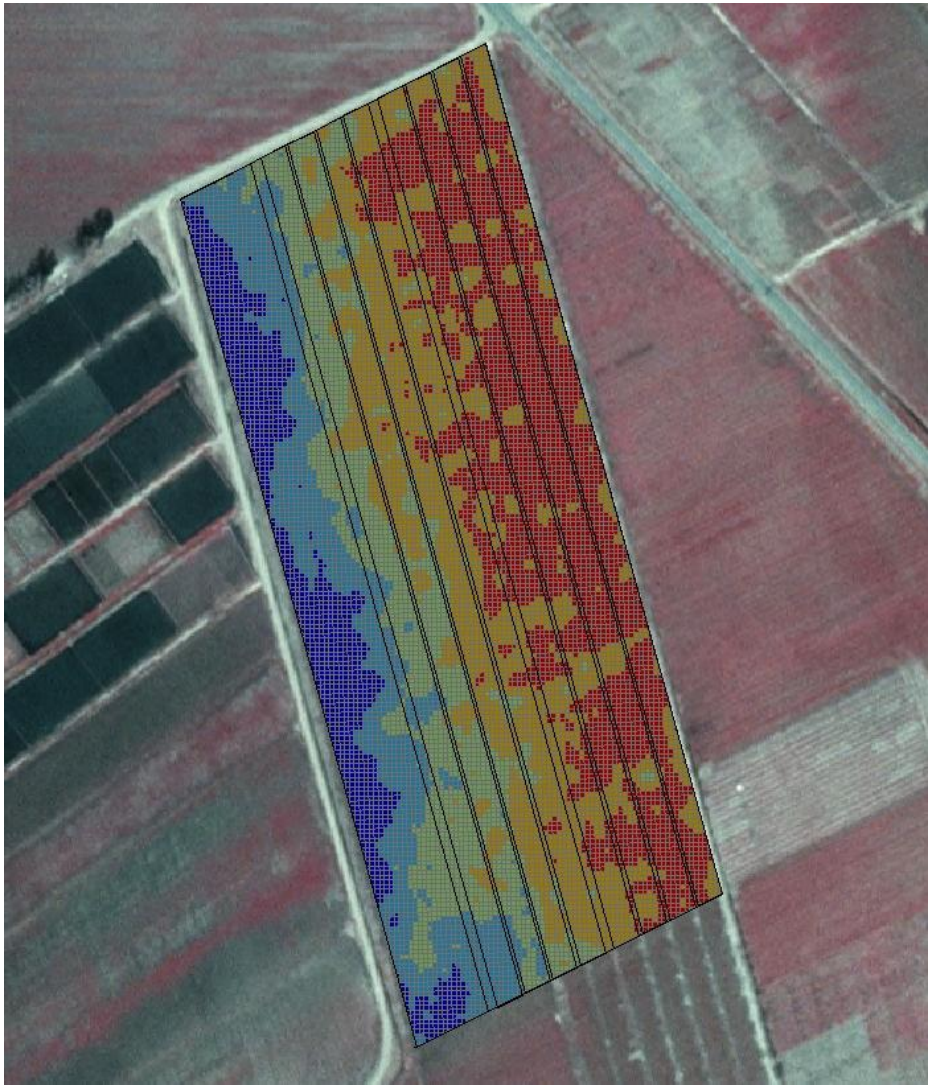
Example 2) GreenSeeker NDVI

- Improves plot data management
  - 1) handheld
  - 2) mobile

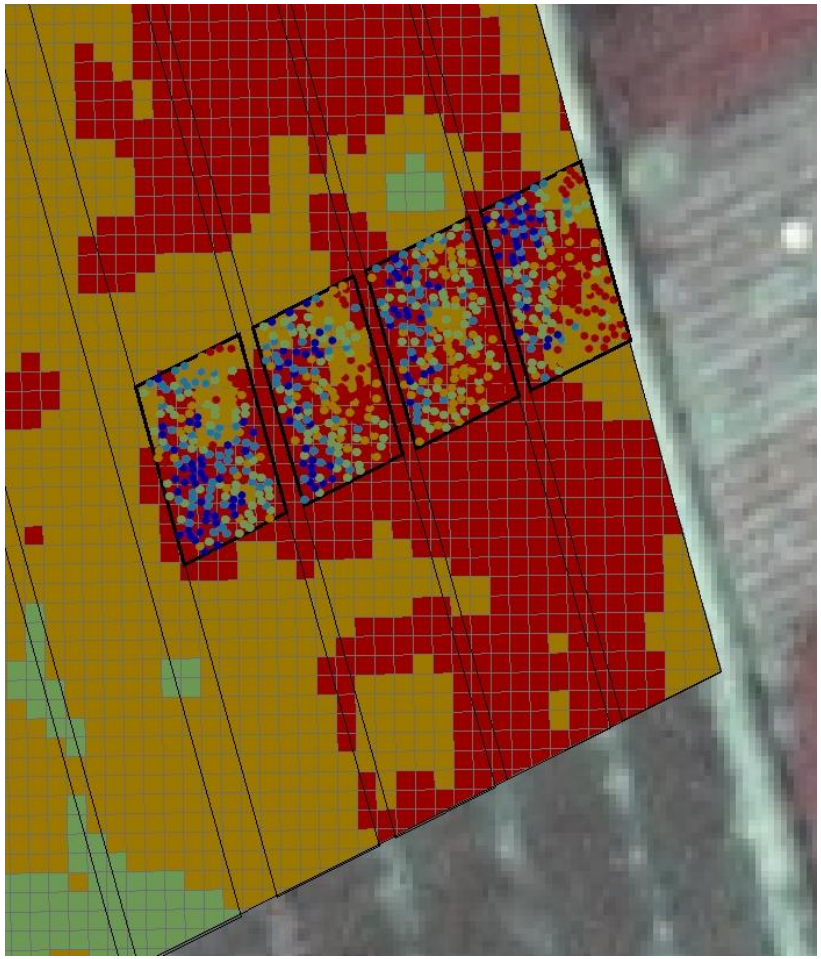
GreenSeeker NDVI
Example – handheld at cottons pre-bloom stage



Use of NDVI
To evaluate plots



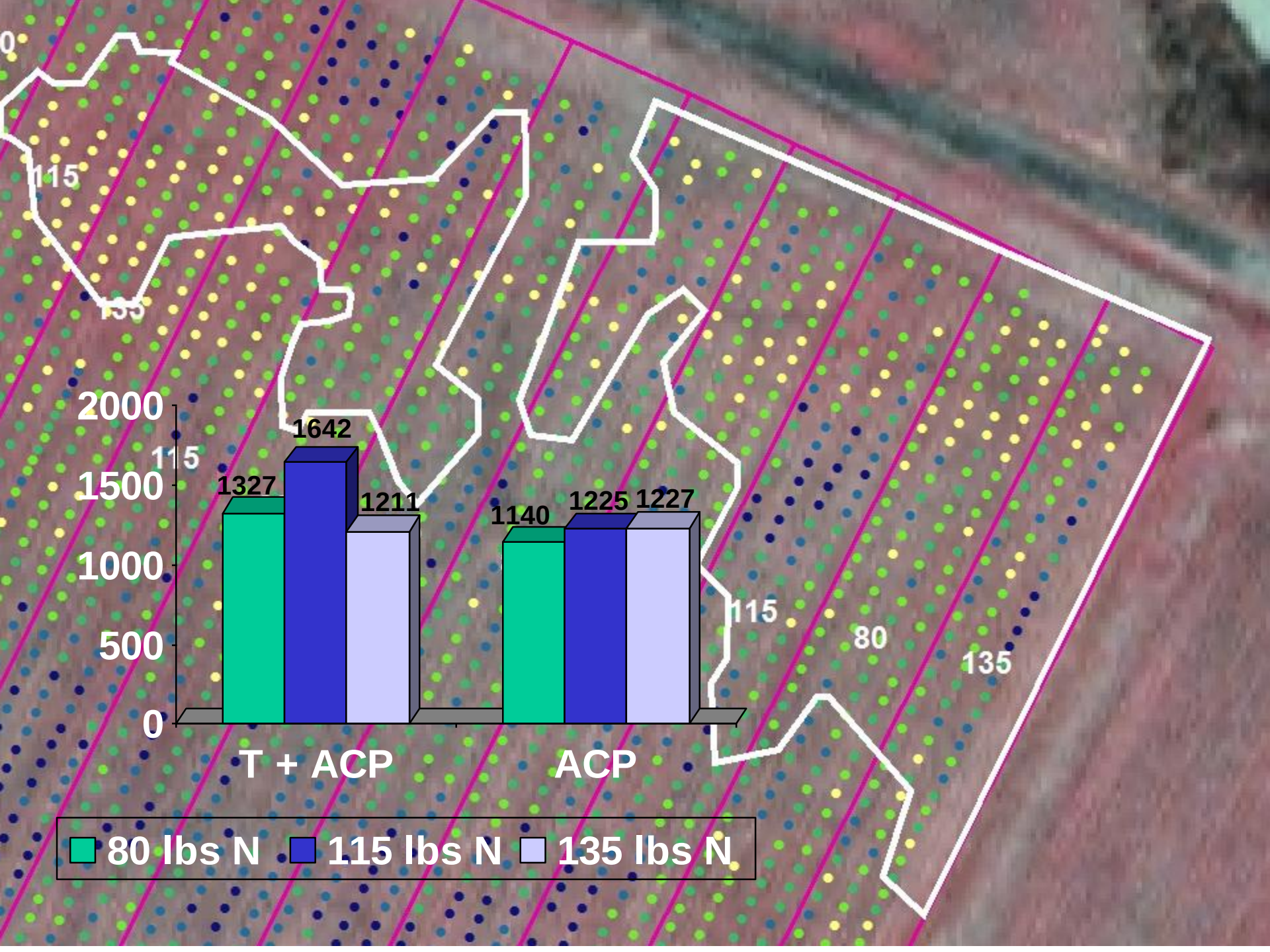
Test - SJ08CT03a, on light soil with high nematodes



- Geo-referenced tiers on the Northeast Res. Sta.
- .shp point data, 40 DAP represents GreeenSeeker NDVI
- Mobile mount, RTK GPS
- Darker blue equal higher NDVI due to Temik 15G sidedress treatments.
- Back ground is Veris ec_a

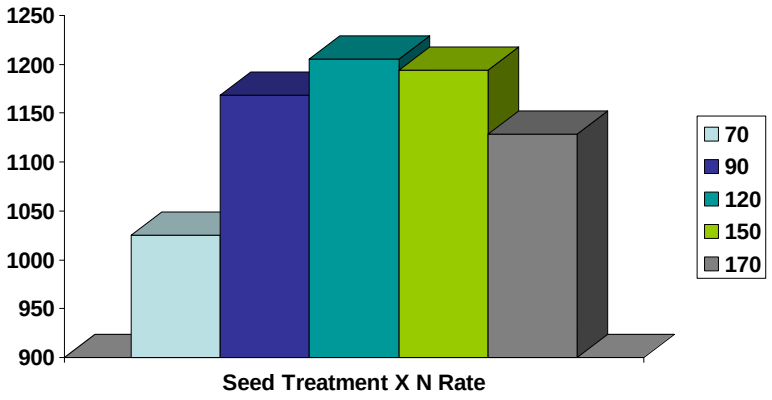
Other considerations for the use of seed treatments

- Implications for resistance in other pests
  - mites, aphids and plant bugs
- Pest status
  - expect changes in species due shifts in crop status on farms
- Management recommendations
  - plan for soil type variability and nematode pest status


115
135
115
80
135
2000
1500
1000
500
0
1642
1327
1211
1140
1225
1227
T + ACP
ACP
80 lbs N
115 lbs N
135 lbs N

LSU Analysis - McCarter

Effect	DF	F Value	Pr > F
N_rate	6	16.8	<.0001
Ec_zone	2	152.83	<.0001
N_rate*ec_Zone	12	1.24	<.0001



- **Seeding pests**
  - **thrips**
  - **aphids**
  - **mites**
  - **fungi**
  - **nematodes**