2021 Row Crop Short Course Importance of Tarnished Plant Bug Adult Migration

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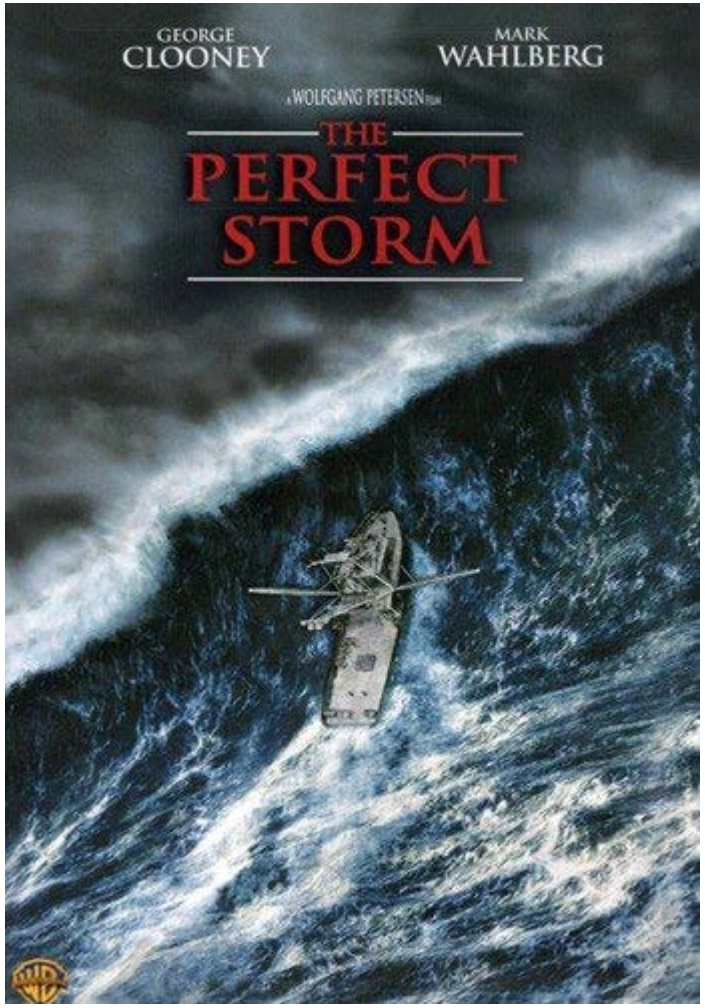
MIGRATION EVENTS: WHAT MAKES UP FOR EXTREME EVENTS?

- Ditch Banks with wild host plants
- Wooded tree lines
- Crops: Corn, Soybean, Grain Sorghum, etc.
- Fallow land (PP)

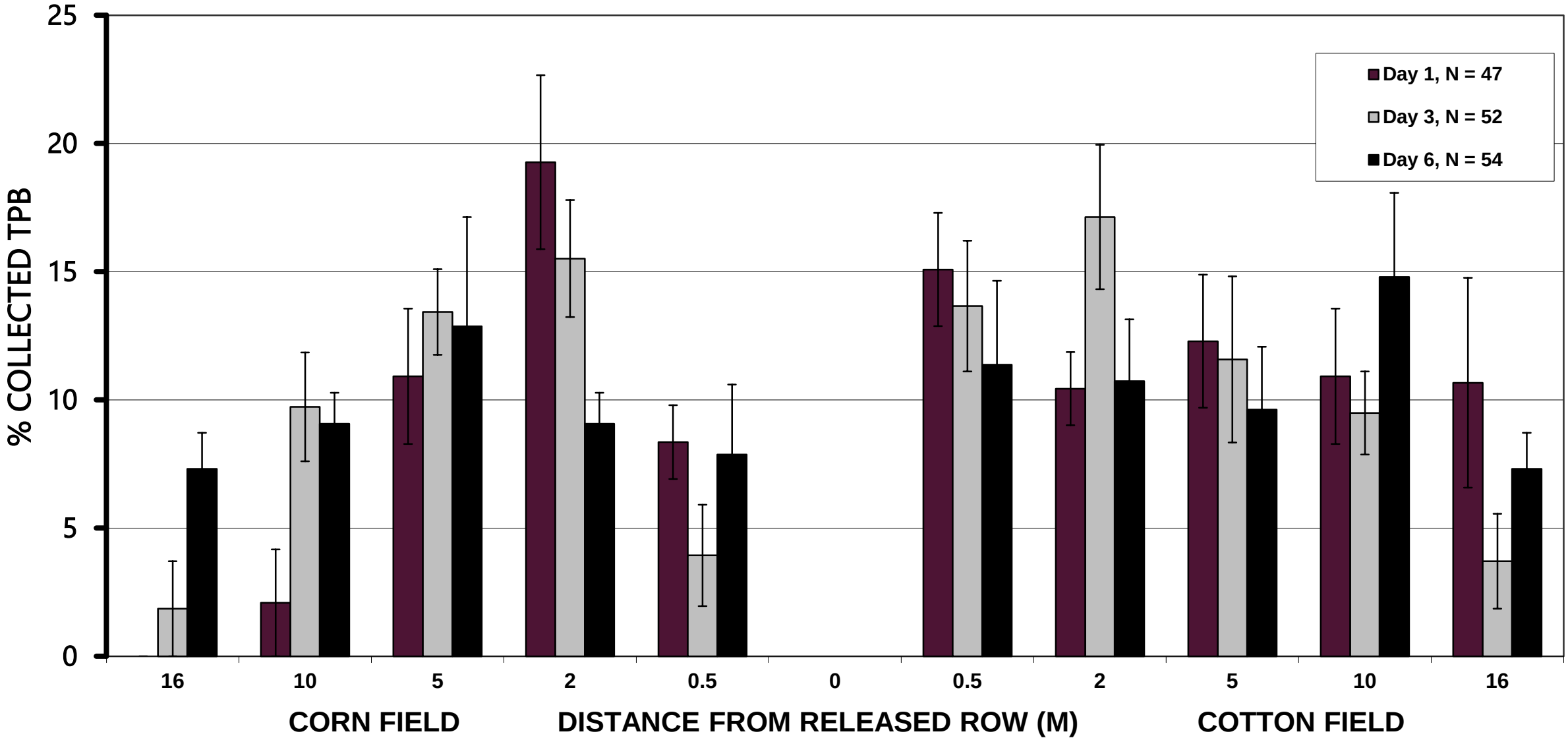
- Environmental conditions
- Crop planting configurations
- Crop planting dates
- Low sink to source ratio



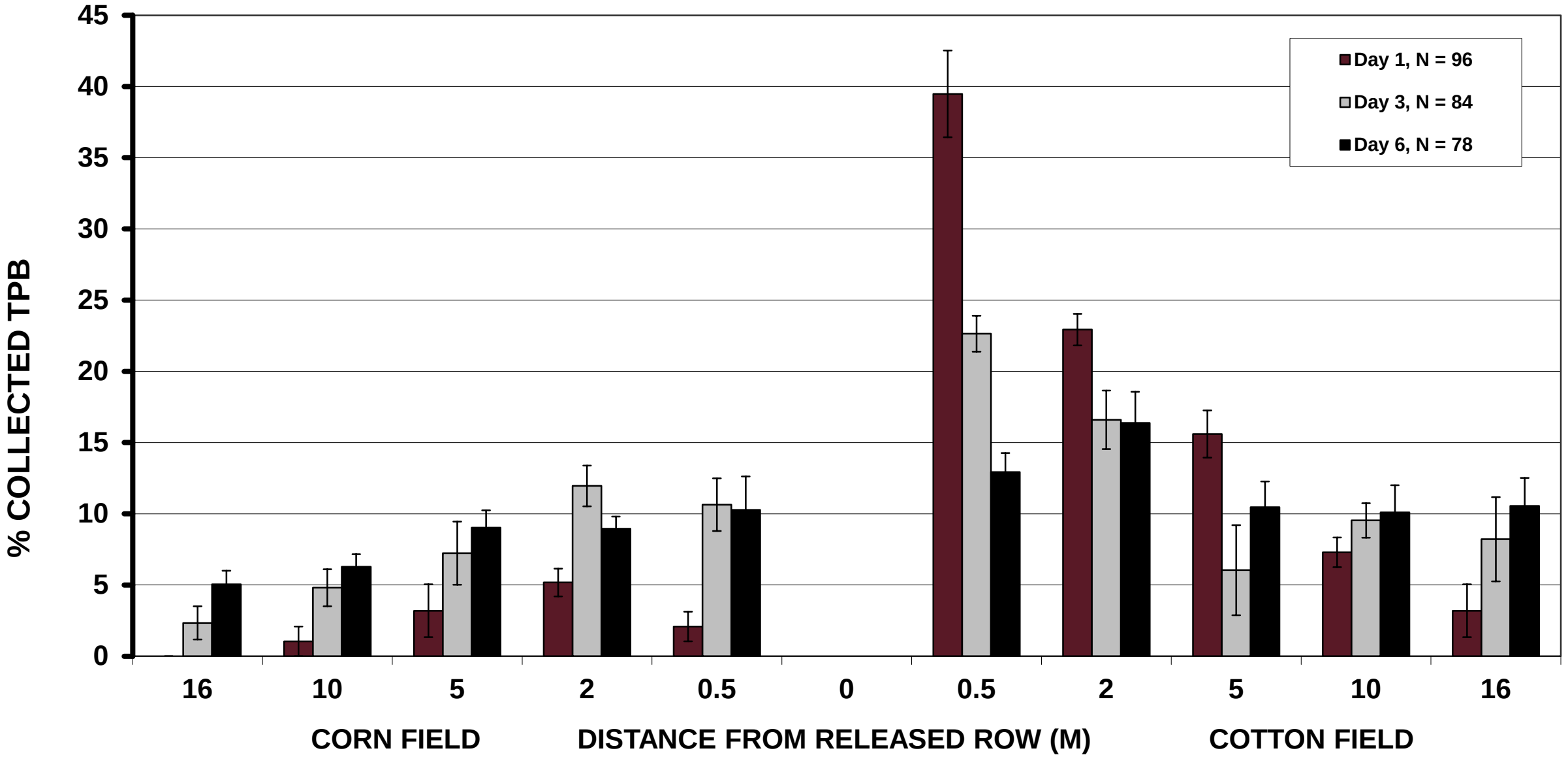
MIGRATING ADULTS: THE CORN EFFECT

MIGRATING ADULTS: WHAT WE KNOW

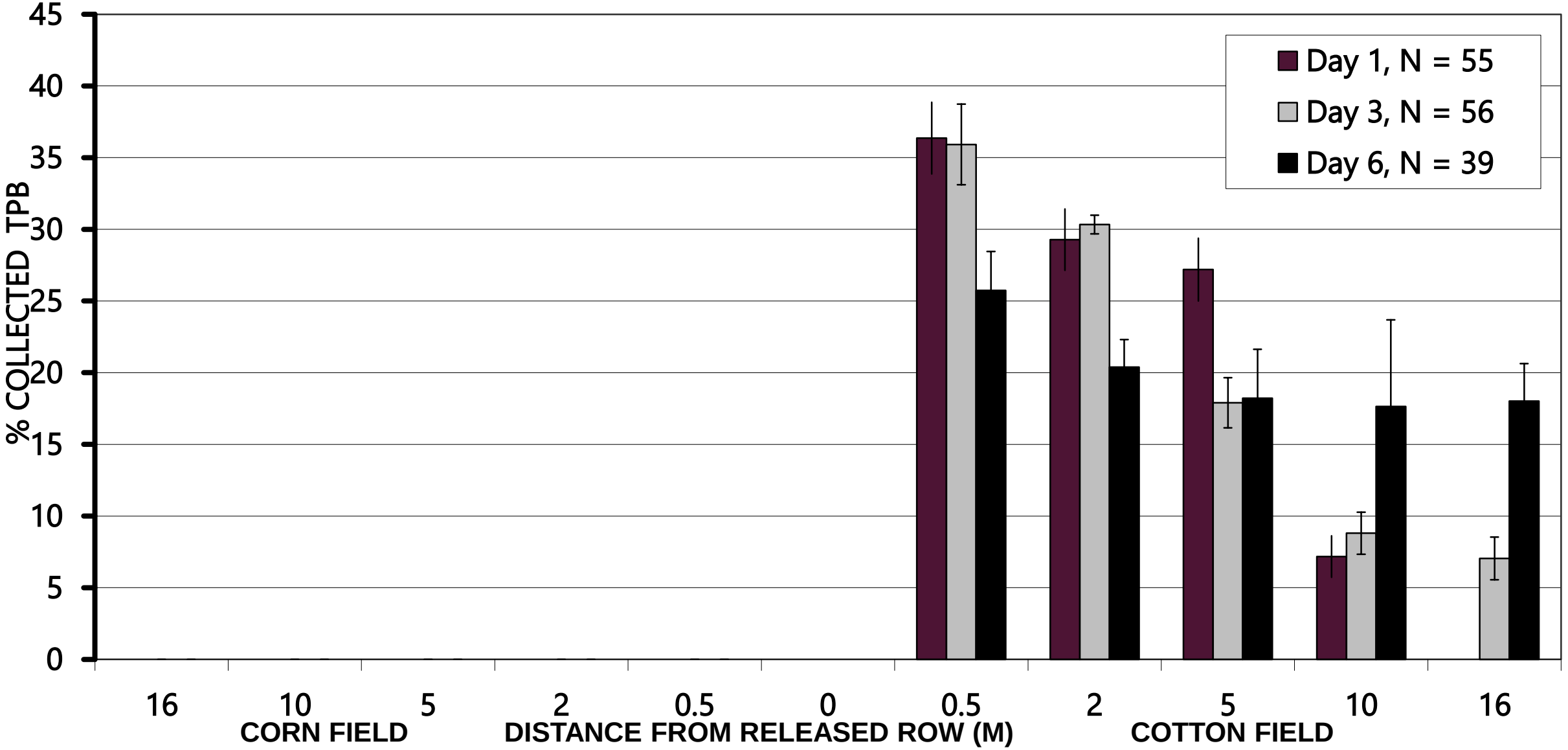
TPB MOVEMENT AT THE CORN-COTTON INTERFACE, CORN (TASSELING), COTTON (PRE SQUARING STAGE), MS 2009



TPB MOVEMENT AT THE CORN-COTTON INTERFACE, CORN (GREEN SILK), COTTON (SQUARING STAGE), MS 2009

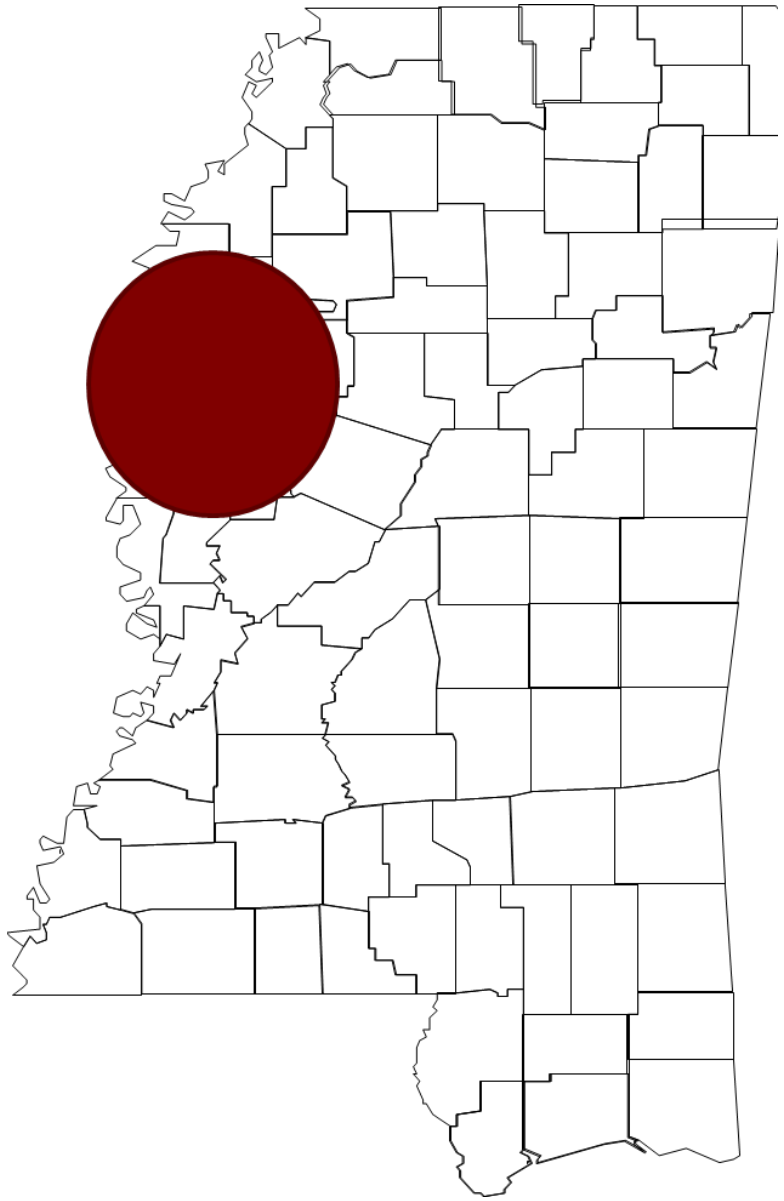


TPB MOVEMENT AT THE CORN- COTTON INTERFACE, CORN (BROWN SILK), COTTON (FLOWERING), MS 2009



2007 ADULT MIGRATION NEXT TO CORN
15 INSECTICIDES APPLICATIONS

2021 ADULT MIGRATION NEXT TO CORN, 11 INSECTICIDE APPLICATIONS



2007:
DRASTIC DROP IN COTTON ACRES
ENVIRONMENT RIGHT
CROP CONFIGURATION
PLANTING DATES

"WE HAVE A PROBLEM WE CAN'T SOLVE WITH MONEY"

2007 MS CONSULTANT SURVEY

Table 1. 2007 Consultant Survey in MS Delta, Tarnished Plant Bug Applications

Number of Acres Treated	Number of Sprays	Percent of Acres with X applications
600	1-3	18%
75673	4-6	22.6%
220710	7-10	65.92%
37845	14-16	11.31%
Total Acres 334828	AVG 8.12	100%

DITCH BANK EFFECT

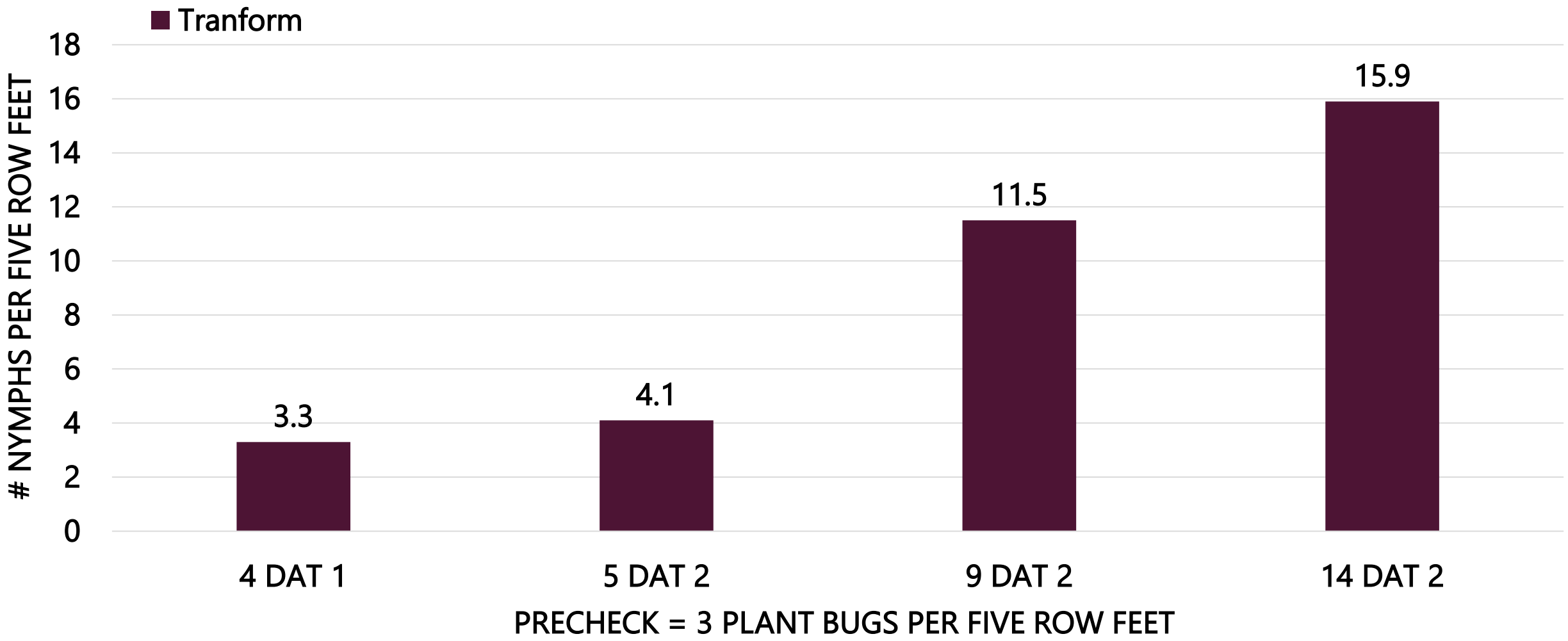
COTTON IS A SINK NOT A SOURCE FOR TPB

ASSESSING INSECTICIDE PERFORMANCE AGAINST MIGRATING ADULTS TARNISHED PLANT BUGS

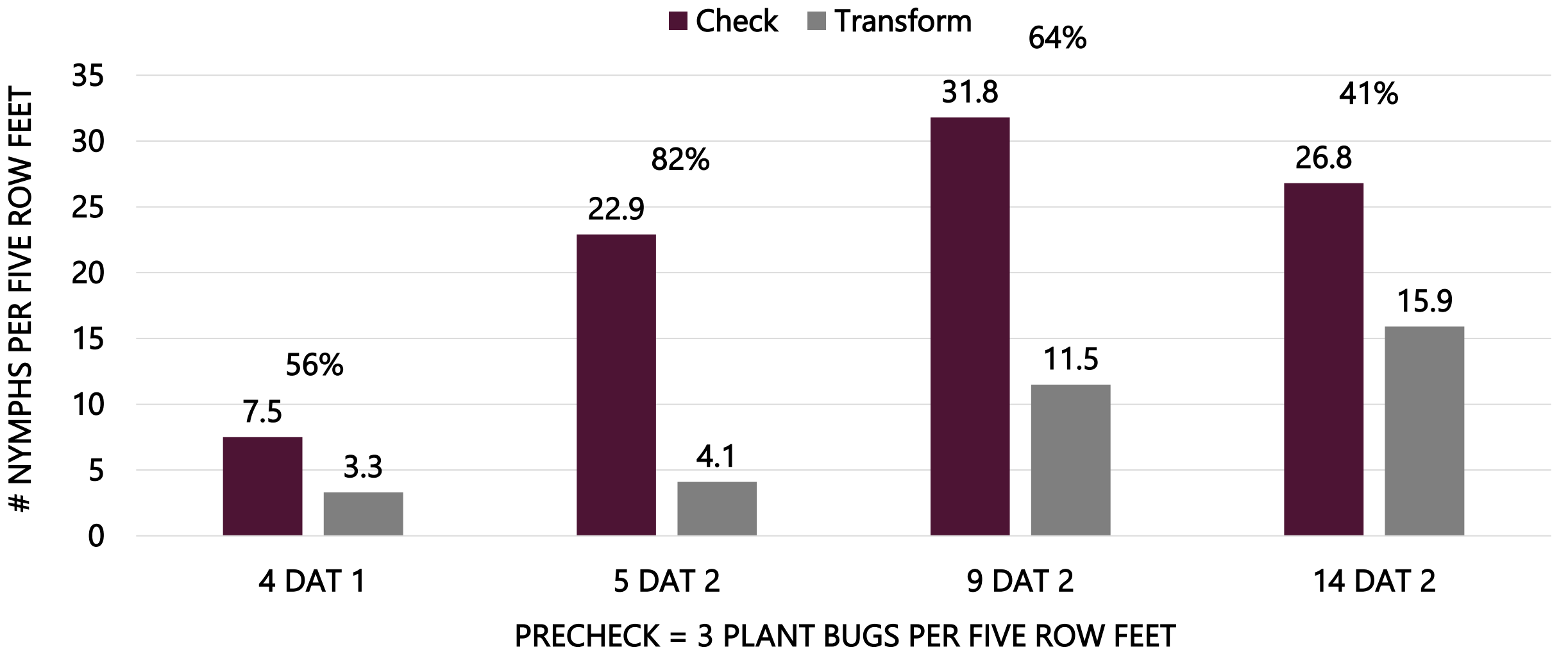
Can’t rely on numbers alone

Multiple applications at close intervals

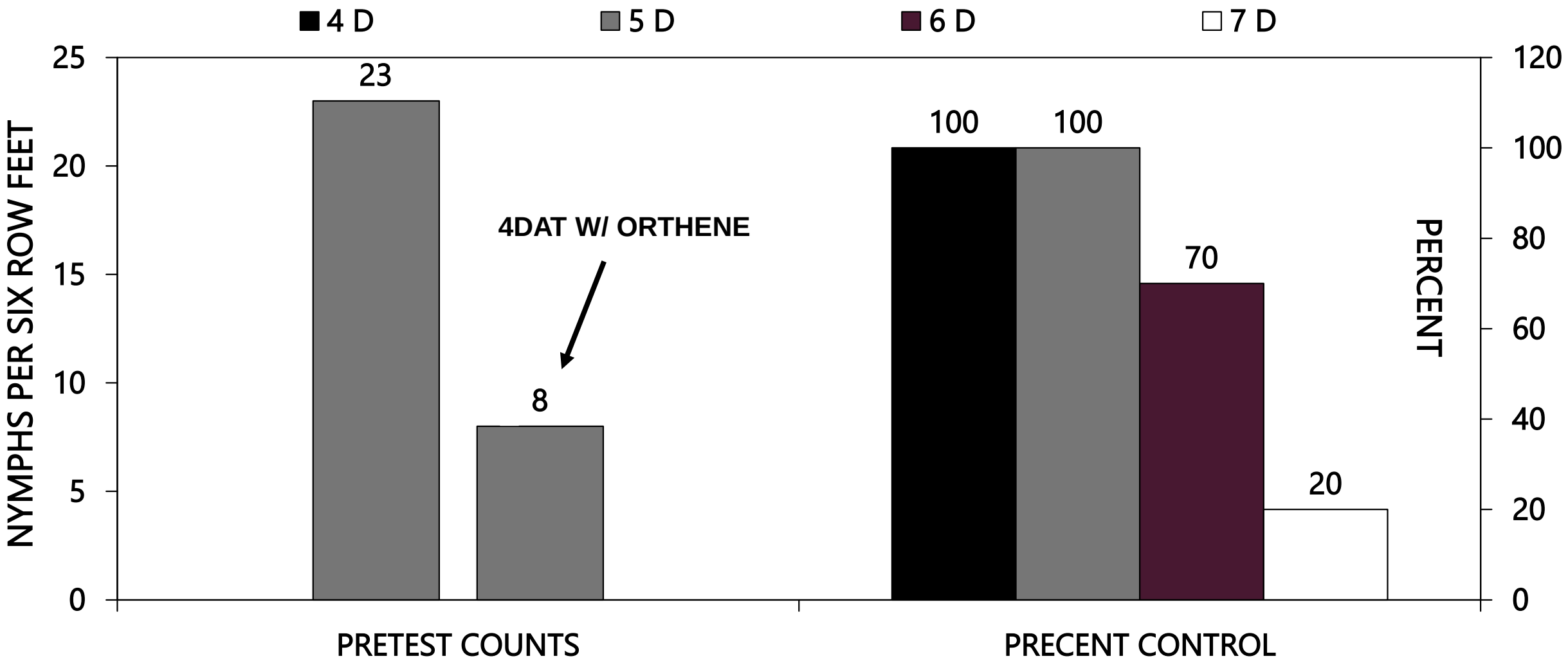
WHAT YOU SEE


Tranform
18
16
14
12
10
8
6
4
2
0
NYMPHS PER FIVE ROW FEET
3.3
4.1
11.5
15.9
4 DAT 1
5 DAT 2
9 DAT 2
14 DAT 2
PRECHECK = 3 PLANT BUGS PER FIVE ROW FEET

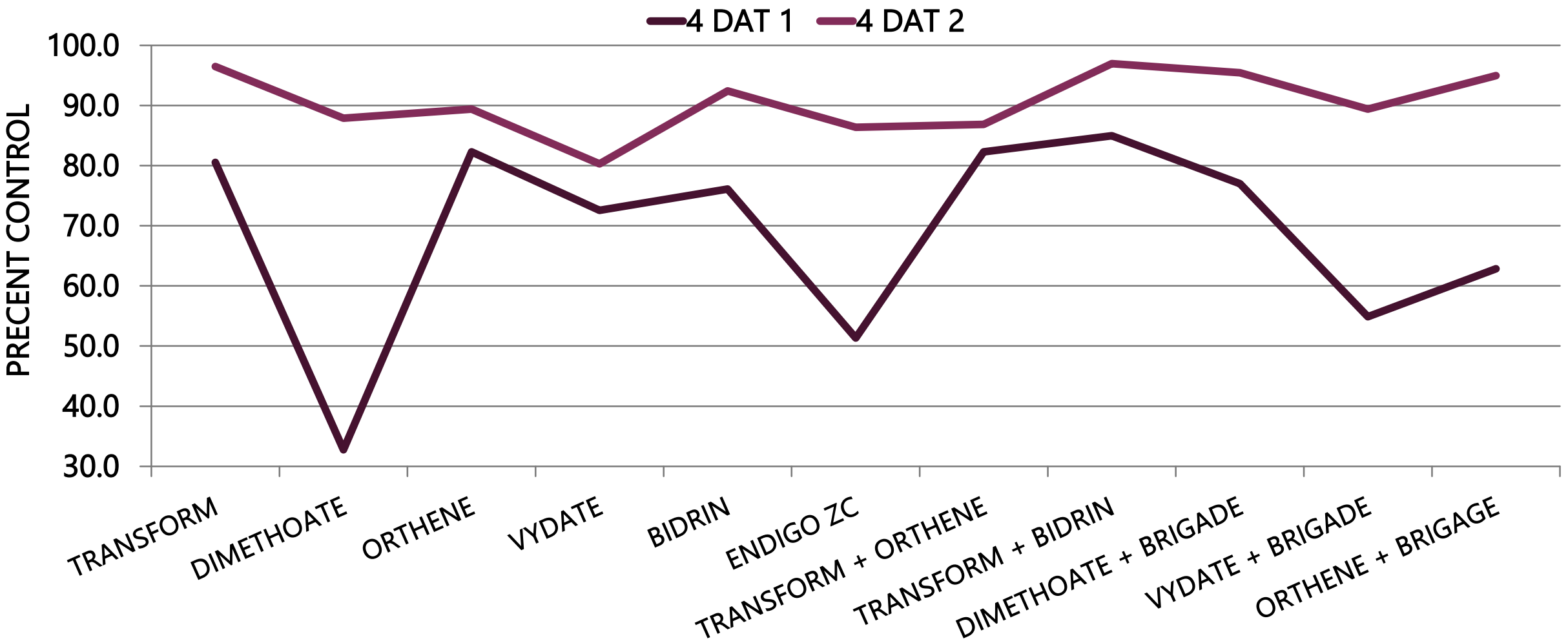
WHAT'S HAPPENING

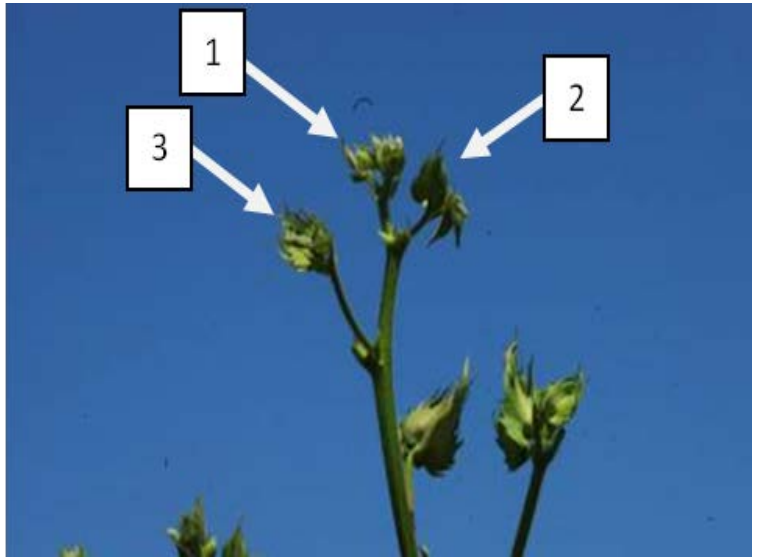


INSECTICIDE APPLICATION INTERVALS



EFFICACY OF COMMONLY USED INSECTICIDES ON TARNISHED PLANT BUGS





MONITORING SQUARE RETENTION

SUMMARY

- Extreme adult migration events are not common across large geographies
- Monitor square retention closely
- Expensive is not always best when making multiple applications on close intervals
- Generally, these situations correct shortly into bloom
- Although difficult, you must stay the course if you find yourself in this situation