NEED FOR THIS SURVEY

- Regulations around pesticide use in agricultural crops are rapidly becoming more strict due to increased occurrences of inefficient use such as off-target movement of pesticides on the farms.
- Availability and adoption of precision technologies (e.g. pulse width modulation and turn compensation) to improve pesticide application accuracy and efficiency has increased considerably in recent years.
- To develop education efforts to promote best management practices and effective technology utilization on the farms, a thorough understanding of commonly used pesticide application practices and technologies used by growers is necessary.

HOW INFORMATION WAS COLLECTED?

- The survey consisted of 22 questions and was intended to gain information from Georgia growers on common pesticide application equipment and practices, spray technologies and their benefits, application challenges, and research needs.
- The survey (printed and online version) was distributed among the growers via direct email and at different in-person county meetings across the state in 2021.
- A total of 186 survey responses (approximately 50% for both printed and online) were received from 65 counties (shaded in the map) within the state.
- Main survey findings are presented below under different categories related to pesticide application.

APPLICATION EQUIPMENT

- Number of sprayers on the farm:
  - 1: 34%
  - 2: 44%
  - 3: 13%
  - 4: 4%
  - 5: 5%

APPLICATION PARAMETERS

- Average ground speed (mph):
  - 0.0-8.0: 15%
  - 8.1-16.1: 70%
  - 16.2-24.1: 14%
  - >24.2: 1%

APPLICATION TECHNOLOGIES

- Boom height (cm):
  - 0.0-50.8: 30%
  - 50.9-76.2: 35%
  - 76.3-101.6: 13%
  - >101.7: 2%

APPLICATION CHALLENGES

- Spray drift and regulations:
  - Other: 16%

FUTURE RESEARCH AREAS

- Product & carrier rate:
  - 12%

HOW THIS INFORMATION WILL BE USED?

- Develop appropriate extension efforts to educate growers on best management practices accounting for standard application equipment and practices in the state.
- Conduct applied research programming in the areas identified by growers to address pesticide application challenges and issues faced by them.
- Implement trainings and workshops to demonstrate precision application technologies and their associated benefits to increase technology adoption among the growers.