

# Grower Views on Nitrogen Management Survey Summary

Survey region: Colusa Glenn Sub-watershed Program (CGSP)

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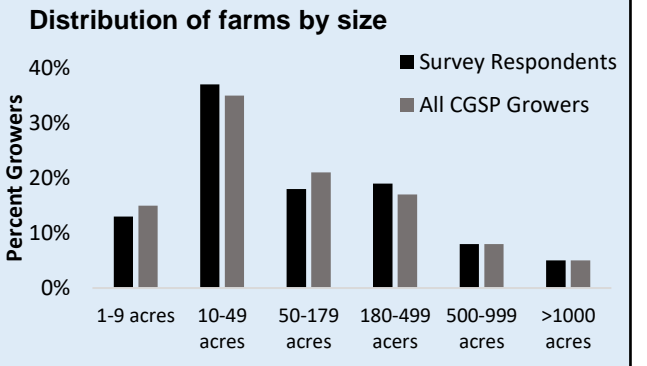
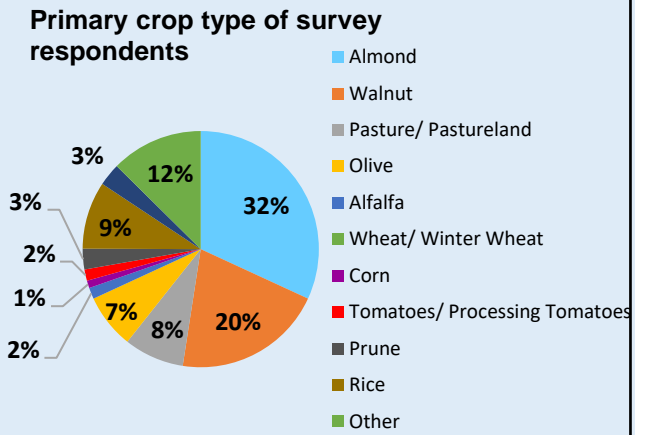
## Project Summary:

- UC Davis collaborated with CGSP to send the Grower Views on Nitrogen Management Survey to all CGSP growers to ask about their views on nitrogen management and better understand how the Sub-watershed Program can provide support to growers in adopting nutrient management practices and complying with the Irrigated Lands Regulatory Program.
- The survey was sent to ~1,500 CGSP growers between January and March 2018. We received 386 responses (31% response rate) and determined the sample was representative of the whole Subwatershed Program in terms of crop type and operation size.
- The project objectives include: (a) providing feedback to CGSP outreach and extension programs on needs to continue assisting growers with adoption of nitrogen management practices; (b) providing feedback to the Subwatershed programs and Regional Water Board on what growers think about the Irrigated Lands Regulatory Program.

## Key findings on practice adoption:

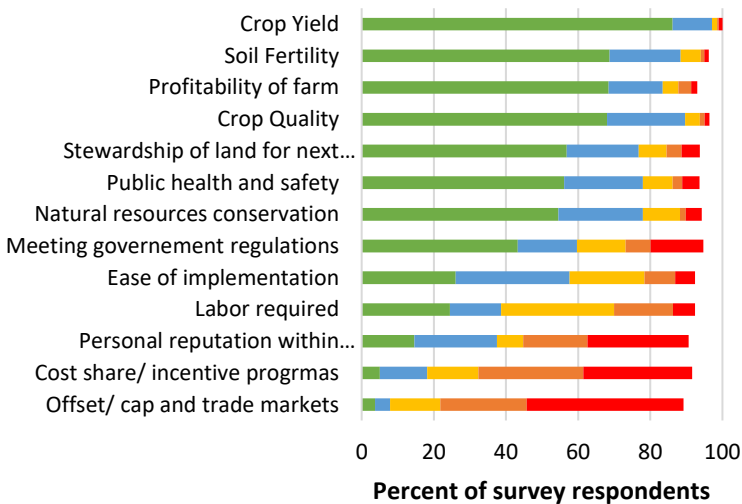
- Agronomic benefits of nitrogen management practices (improvements to crop yield and quality, soil fertility & return on investment) are some of the most important factors considered in adoption decisions.
- Uncertainty of practice impact on the farming operation, cost, and regulations are the most frequent barriers preventing adoption of nitrogen management practices.

## Survey sample characteristics



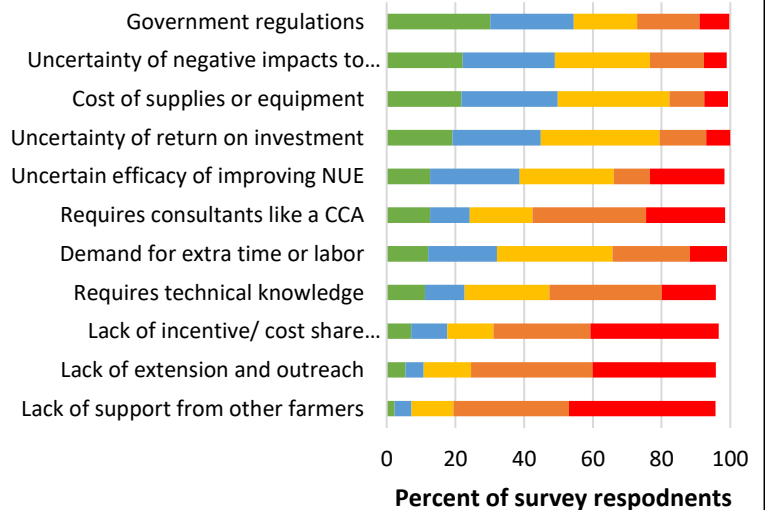
### How often are the following PRIORITIES when deciding to adopt N management practices?

Always (Green) Often (Blue) Sometimes (Yellow) Rarely (Orange) Never (Red)

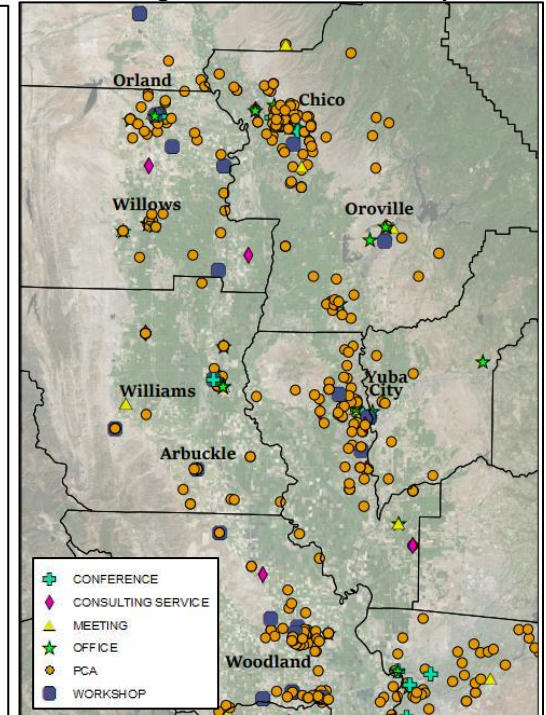
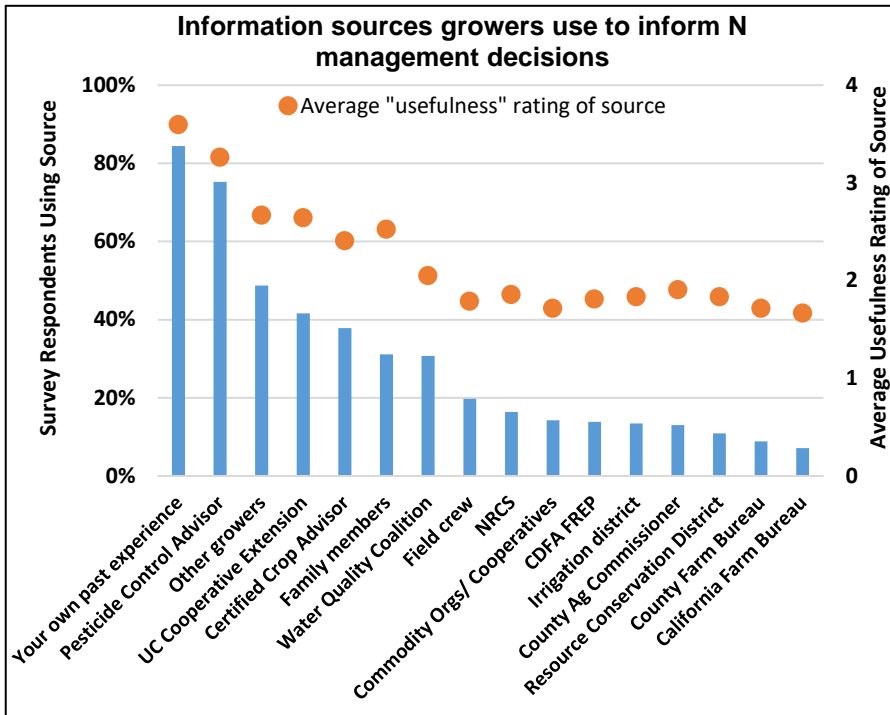


### How often are the following BARRIERS when deciding to adopt N management practices?

Always (Green) Often (Blue) Sometimes (Yellow) Rarely (Orange) Never (Red)



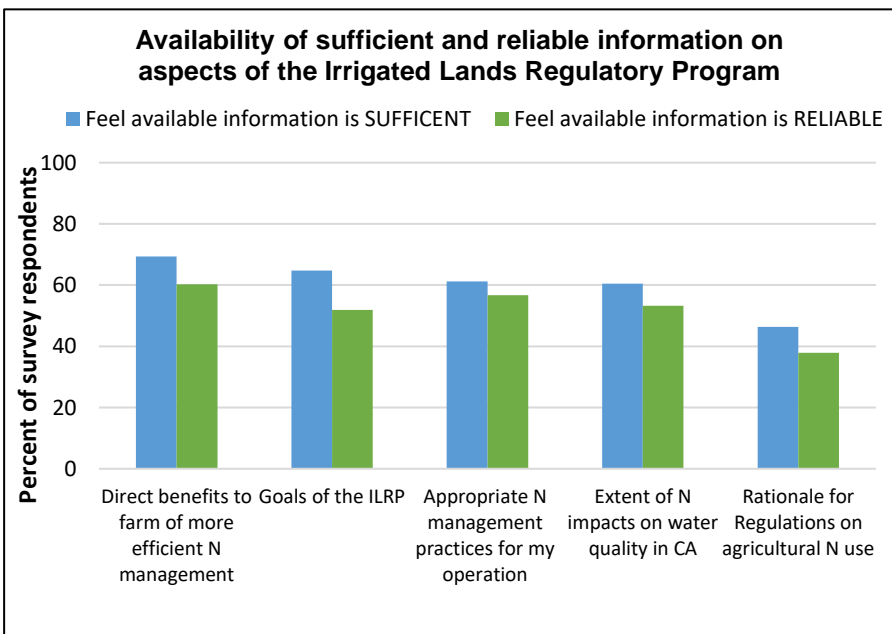
## Nitrogen Information Landscape



### Key findings on nitrogen information landscape:

- Growers seek information from many sources to base their nitrogen management decisions, but most important sources are PCAs (cited by 75% growers) and their own past experiences (84%).
- Average ratings of the usefulness of different information sources correlate very closely with how commonly the information source is referenced.
- Information sources are clustered around towns and mostly outside of Glenn & Colusa county boundaries. We plan to investigate information accessibility for CGSP members in further spatial analysis.

- When asked about the Irrigated Lands Regulatory Program, the majority of growers (>50%) indicate there is *sufficient* information available, except for on the rationale for regulations. There is less agreement on how *reliable* the information is across many aspects of the program.
- The majority of growers (>50%) do think that the required Nitrogen Management Plans and Farm Evaluations help to improve nitrogen management planning by identifying areas for improved efficiency and tracking improvements in nitrogen management over time.



### Takeaways for Outreach:

- PCAs are a highly valued information source and may be crucial partners to disseminating information about nitrogen management & regulations.
- Emphasizing on-farm benefits of improved nitrogen management is key to motivating practice adoption.
- Clear communication on the goals and expectations of the Irrigated Lands Regulatory Program is needed.

**Next steps:** Further analysis of the survey will determine how factors influencing adoption vary across different crop types and farming operations. UC Davis and CGSP will continue collaborating to understand how to improve outreach and extension of nitrogen management practices and regulations.