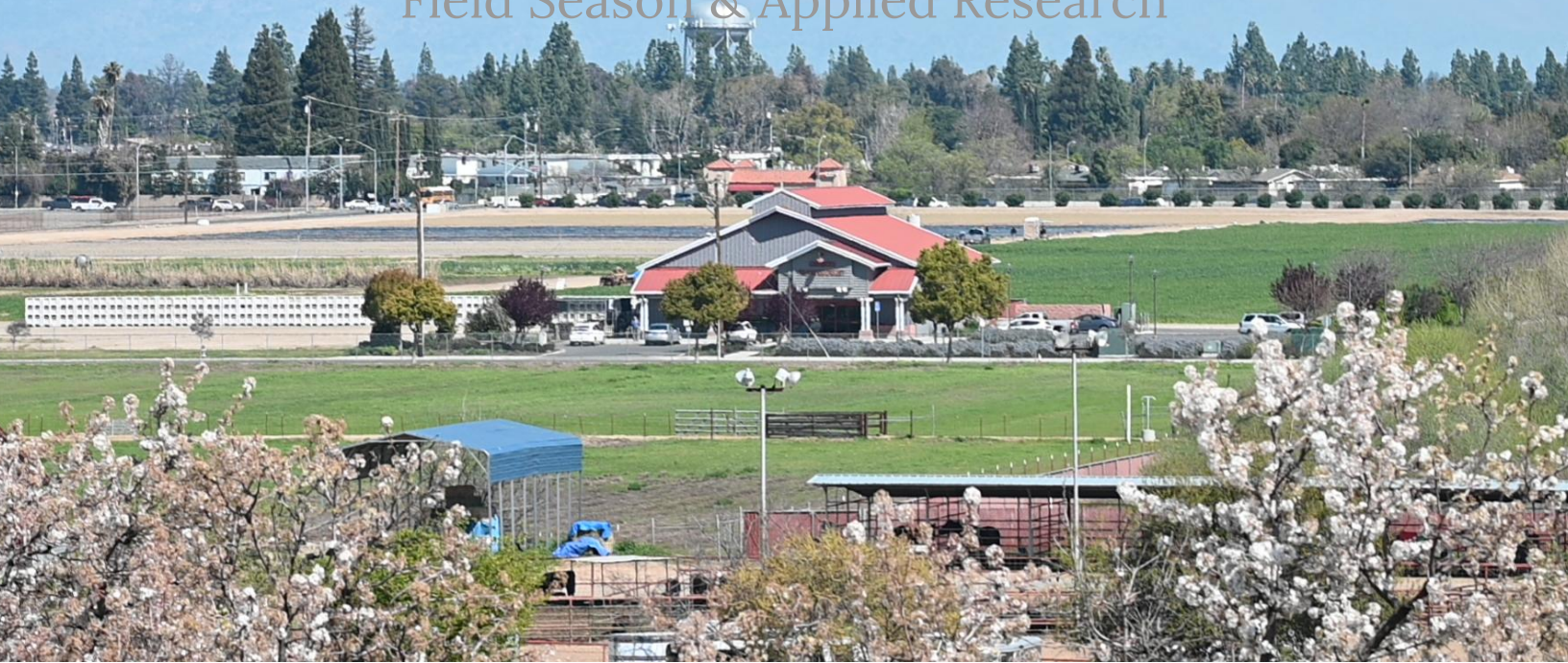


April 2026:

Field Season & Applied Research



by Sara Mekideche on 04/27/2026

As the growing season begins, the Center for Irrigation Technology (CIT) is once again turning research into action in the field. Spring marks a critical time for launching applied studies that address real-world challenges facing California agriculture, from water scarcity to sustainable crop management.

This month, we highlight a research project taking place at CIT field sites, where innovation meets hands-on experimentation to support growers with practical, data-driven solutions.

Improving Tomato Yield Under Deficit Irrigation Biostimulants for Water Efficiency

Tomato production in California's Central Valley continues to face increasing pressure from drought, extreme temperatures, and limited water availability. This research project examines whether hormone-based biostimulants (specifically cytokinins) can help growers maintain productivity under reduced-irrigation conditions.

The study evaluates the effects of a cytokinin-based biostimulant on the yield and quality of processing tomatoes grown under two irrigation regimes:

- 100% evapotranspiration (ET) – standard irrigation
- 70% ET – deficit irrigation

In addition, the biostimulant is applied using two different methods:

- Foliar spray
- Soil application through irrigation

At harvest, tomatoes are analyzed for yield and key quality parameters, including pH, Brix (sugar content), and color. Originally conducted last year, the study will be repeated in 2026 to validate findings and strengthen recommendations.

This project is also supporting the next generation of researchers, as it serves as part of a Master's thesis for a graduate student in Plant Science.

Why it matters: Identifying tools that help crops perform under reduced irrigation is critical for maintaining productivity while conserving water—one of the most pressing challenges in California agriculture.

Looking Ahead

Field season is where research comes to life. At CIT, this project reflects our commitment to applied research that directly benefits growers, supports student training, and advances sustainable agricultural practices.

As the season progresses, we look forward to sharing updates and insights from the field.

Have questions about our research or want to collaborate? We'd love to hear from you.

Stay Connected

We invite you to stay connected with CIT by following our updates on social media, exploring our research and testing services on our website, and reaching out to learn more about collaboration opportunities.

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 YouTube: <https://youtube.com/@fresnostatecit?si=ErN37ewuyHz7fsjS>

This monthly update is part of CIT's ongoing effort to share our work, impact, and vision for the future.