



Update

California Processing Tomatoes

NEWS AND INFORMATION FROM THE CALIFORNIA TOMATO RESEARCH INSTITUTE, INC. • 2015 • VOLUME 35

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Published at

18650 Lone Tree Rd.

Escalon CA 95320

email: chuck@tomatonet.org

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2015 Projects

AGRONOMIC RESEARCH

Evaluation of irrigation practices on water use, soil salinity, and tomato productivity in the Delta

Brenna Aegerter and Michelle Leinfelder-Miles

Continuation of a modest but extensive evaluation of salinity issues in the delta tomatoes. The project is in its third year.

Investigation of Sustaining Tomato Plant Health and Yield with Composted Manure

Gene Miyao

An outgrowth of the previous work by Davis/Leveau on root health. Proposal seeks to optimize the application rather than explain the complex microbiology involved. Planned as a final year of this project.

Evaluating the Nitrogen Budget System in Drip Irrigated Processing Tomatoes

Scott Stoddard

Project seeks to evaluate nitrogen budgeting systems being developed by water agencies to regulate nitrogen use. The project will be conducted at Merced College, a first time for CTRI.

Potential for improved fertigation efficiency via field-based sensing devices

Brenna Aegerter

Explore the use of two field-based measurement devices to inform more precise management of water and nutrients in subsurface drip-irrigated (SDI) processing tomatoes. The technologies to be evaluated are a Greenseeker handheld NDVI meter and a Tule Technologies surface renewal evapotranspiration (ET) station.

GERMPLASM & VARIETY DEVELOPMENT

CM Rick Tomato Genetics Resource Center

Roger Chetelat

Annual support of the valuable germplasm bank. The Center serves as a warehouse for genetic materials used in many CTRI research projects. The Rick Center is undergoing a new endowment drive to increase funding and we are considering an endowment amount in addition to our annual support.



Photo Courtesy AgSeeds

2015 Processing Tom



INSECT MANAGEMENT

Evaluation of Tactics for Improvement of Stink Bug Control

Tom Turini

Second year of the requested proposal to focus on the increasing problem of stinkbugs in Fresno County. The first year was successful in identifying early season movement and reviewing control options.

(Photo A and B)

DISEASE MANAGEMENT

Evaluation of Fungicides, Bio-Pesticides and Soil Amendments for the Control of Southern Blight of Processing Tomatoes

Joe Nunez

A revised continuation with heavy stakeholder participation for the fifth year of continually refined trials in a Kern member field. Project will try more difficult to execute and aggressive crop protection treatments.

Nematicide Product Screening

Ole Becker, Joe Nunez

The is the project that successfully identified Nimitz nematicide and is positioned to discover others. Refinement of rates is the main objective in this continuation of extensive trials performed at both the South Coast Field Station, Riverside and Kern County Research Farm in Shafter.

Detection of Azole and Strobilurin Fungicide Resistant Strains of Tomato Powdery Mildew in California

Ioannis Stergiopoulos

Continuation of work we approved in February 2013. Powdery mildew continues to be problematic for both grower and researchers. Proposal seeks to focus on the crop production issues of field resistance to fungicides. It is part of a larger suite of proposals to other agencies looking at more basic properties of the pathogen.

(Photo C)

Curly Top Research: Objectives Relevant to Tomatoes

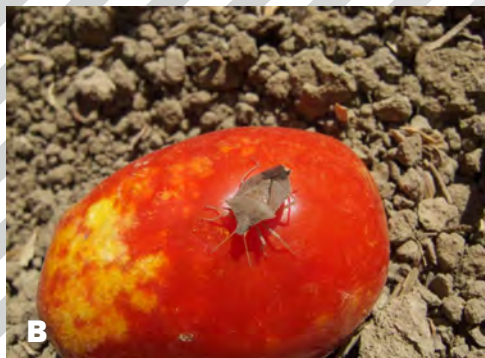
Bob Gilbertson

This proposal is the tomato focused part of a larger proposal. The Curly Top Virus Control Program has continued funding of over \$200K for related work. Specific resistance trait development, feeding deterrent development are this project's goals.

Evaluation of Chemical Control of Bacterial Speck

Gene Miyao

A basic field evaluation of newer control products. This proposal contains a shift in emphasis to the Brentwood district, a more problematic area for direct seeded bacterial diseases.



ato Research Projects

Evaluation of Root Knot Nematode Control with Resistant Wheat and Various Cover Crops

Gene Miyao

Work is the third year of work and will include tests of the new nematicide Nimitz. This proposal builds on the overall strategy to develop a more robust processing tomato nematode management program at UC Riverside.

(Photo D)



WEED MANAGEMENT

Field Bindweed Management in Processing Tomatoes

Lynn Sosnoskie

A continuing proposal on bindweed control. This new proposal looks beyond simple treatment rates and into an overall strategy of improving early crop competitiveness.

(Photo E)



Evaluating Herbicide Carryover in Subsurface Drip Irrigated Tomatoes

Kurt Hembree

Third and completing year to address the increasingly important issue of excess herbicide residue on permanent beds.

Automatic Vision Guided Weed Control System for Processing Tomatoes

David Slaughter

A modest proposal for an old problem. This is a partnership grant with USDA to build a new machine vision system for processing tomato. We have a long history of funding robotic weeder research but with little commercialization. With the USDA component and a new Dean of the College having a focus on applied results, we're optimistic we can avoid the shelving of a system due to patent issues of the past.

Beyond Funding Research: 2014 Industry Issues and CTRI Activities

Broomrape

The 2014 Broomrape issue consisted of two distinct outbreaks: a new species, *Orobanche aegyptiaca*, discovered in a Solano County field and "legacy" outbreaks of *Orobanche ramosa*, in Stockton. For the new Solano outbreak, CTRI cooperated with the California Tomato Growers Association-led funding by growers and processors to match CDFA eradication efforts.

The branched broomrape "legacy" species is the pest CTRI was originally organized to eradicate in the 1970's. These recurring infestations will probably become a larger problem until a crop insurance and pest management plan is adopted. CTRI supports a comprehensive effort to address future "legacy" outbreaks.

Nitrogen

Regional Water Coalitions will be the lead agencies to organize groundwater protection rules developed in cooperation with each commodity. Processing tomato is in the first group of six crops to establish approved best use practices. CDFA will provide the bulk of the funding along with support from each commodity. The process is just underway in December 2014.

Regarding nitrogen in the atmosphere, we continue to participate in listening sessions on California Air Resources Board research projects modeling farm generation of the greenhouse gas, nitrous oxide (N₂O)

(continued on back page)

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Walnut Grove

Amistad Ranches
Walnut Grove

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Woodland

Barrios Farms Inc.
Yolo

Steve Barsoom
Walnut Grove

Dan Best Ranch, Inc.
Woodland

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Bullero Farms
Woodland

Bullseye Farms
Woodland

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Turkovich, LLC
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Woodland

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Dunnigan

Dougherty Bros.
Robbins

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E and J Farms, Inc.
Woodland

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Woodland

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Woodland

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Clarksburg

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Chico

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Colusa

Roma Farms
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Winters

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Winters

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Woodland

Silverdale Farms
Clarksburg

T & P Farms
Arbuckle

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Sacramento

Tanaka Farms Inc.
Woodland

Dustin Timothy Farms
Dixon

Ronald Timothy Farming
Dixon

TOMCO
Woodland

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Davis

Two M Enterprises
Dixon

Van Ruiten Bros.
Robbins

Vann Bros. Farms
Williams

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Stanislaus**

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Tracy

Steve Arnaudo & Sons
Tracy

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Thornton

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Stockton

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Del Terra Farms, LLC
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Delucchi Farms
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John Dondero Farm
Linden

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Patterson

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Westley

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Holdener Ranches
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Holt

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Linden

Hal Robertson Farms
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Sarale Farms, Inc.
Stockton

SAS Farms
Tracy

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Byron

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Westley

Toso Brothers
Stockton

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Brinkley Farms
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Fresno

Burford Ranch
Helm

Casaca Vineyards
Five Points

Clark Bros. Farming
Clovis

Coelho East
Five Points

Coelho South
Five Points

Coelho West
Five Points

Crivelli Ranch
Dos Palos

Daddy's Pride Farming
El Centro

N.F. Davis Drier
& Elevator
Firebaugh

W. C. Davis Farms
Firebaugh

J. Diedrich Farms
Firebaugh

William Diedrich Farms
Firebaugh

Double G. Farms
Le Grand

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Huron

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Coalinga

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Riverdale

Ferguson Farming
Company
Lemoore

Five Points Ranch, Inc.
Five Points

Fortune Farming Company
Fresno

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Mendota

Graham Family Farming
Kerman

Greenfields Turf, Inc.
Greenfield

Hammonds Ranch
Firebaugh

Harris Farms Inc.
Coalinga

Houlding Farms Inc.
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Gary Hughes Farms
Kerman

Iest Family Farms
Madera

J & J Farms
Firebaugh

M.L. Ledford & Son
Firebaugh

Live Oak Farms
Le Grand

Lucero Farms
Los Banos

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Firebaugh

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Dos Palos

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Los Banos

Pentagon Company
Los Banos

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Firebaugh

R.A. Sano Farms, Inc.
Firebaugh

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Esajian Farming Co.
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F & F West
Lemoore

Fabbri Farms
Bakersfield

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Hanford

Opal Fry and Son
Bakersfield

Grimmway Farms
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Jerry Slough Farming Co.
Buttonwillow

Kirschenman Enterprises
Edison

Materra Farming Company,
LLC
Bakersfield

Newton Farms
Stratford

Parsons Farms
Buttonwillow

Stenderup Ag Partners
Bakersfield

Stone Land Co.
Stratford

SVI Farming
Hanford

B & R Tevelde Ranch
Hanford

TMT Farms
Hanford

Donald Valpredo Farms
Bakersfield

WAY Farms
Bakersfield

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2015 Members and Projects List

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Beyond Funding Research: **2014 Industry issues and CTRI activities** *(continued)*

West Side Research and Extension Center Strategic Plan

Beginning March 2014 and ending in October, a committee of fifteen completed a strategic plan to re-organize the flagging WSREC. The top priority identified by the group was water: a new well and delivery system are mandatory for any long term success. Several other issues are critical to success but nothing happens without water first.

Stinkbug

Beyond the scope of the continuing Stink Bug Management project with Tom Turini, we have been pursuing, in cooperation with CTGA an extension of registration for the insecticide endosulfan. We have petitioned USEPA and are making slow progress toward a one year extension. We have also separately sponsored Dr. Les Ehlers, retired UC Entomologist, to survey fields in the region with Tom.

Curly Top Virus

2014 was a relatively quiet year compared to 2013 losses, however a focus on outlying areas including San Joaquin County is now becoming necessary. Shifting crops, pasture uses including increased organic range, and drought increased amounts of fallow land are all adding to the complexity of the leafhopper control effort. CTRI and CTGA have been active in assisting the Curly Top Virus Control Program to best serve processing tomato growers.

Communications

Email and web connectivity continue evolving to become our mainstream means of communication. We are in the process of upgrading and broadening our electronic systems to accommodate mobile devices and seamlessly manage addresses, contacts and communications. It is not without cost, both in upgraded sites and software, but also operator training. If fail to stay current now, we will become dependent on outside management services to accomplish even the simplest of functions.



One Final Note:
2015 Assessment Rate to remain at seven cents per paid ton.