

MELON RESEARCH UPDATES, OCTOBER, 2009

Center for Produce Safety - UC Davis <http://cps.ucdavis.edu/>

The center has finished the review of research proposals that were submitted for the next round of funding with total funds available of up to \$2,000,000.

Public Partners:

California Department of Food and Agriculture – Specialty Crop Block Grant
University of California, Agriculture and Natural Resources

Industry Partners:

Almond Board of California

California Melon Research Board / California Cantaloupe Advisory Board

California Pistachio Research Board, California Walnut Commission

Florida Tomato Committee, Washington Tree Fruit Research Commission

When I was contacted on August 14 to discuss the review, I was told that the technical committee had already made decisions to reject the following two proposals that included melons:

- 1) Surface Engineering Approach to Improve the Efficacy of Disinfectants Applied to Fresh Produce by Principal investigator: Qixin Zhong, Assistant Professor in Food Biophysics and Nanotechnology, Department of Food Science and Technology, University of Tennessee.
- 2) Tracking exogenously applied *Salmonella* on cantaloupe from production fields and facilities coupled with sanitation treatments, through shipping to simulated retail utilizing a specific molecular loop-mediated isothermal amplification (LAMP) method by Principal Investigator: John C. Beaulieu, Ph.D., Southern Regional Research Center, New Orleans.

Therefore, the melon industry was unable to get any matching funds for new research on food safety.

Dr. Pete Goodell - Cucumber beetle management

No sooner had I reported in early September that there had been no requests for assistance with control of cucumber beetles, when several calls were received by the research team for assistance in identifying damage to both honeydews and cantaloupes. No money from the melon board was requested by the research team for payment during 2009. Dr. Goodell has passed on the following web link that you can access for identification information on the various species of cucumber beetles from the UC Pest Management Guidelines:

<http://www.ipm.ucdavis.edu/PMG/r116300511.html>

There is an identification key in PDF file format that can be downloaded from that site. (Please see the first line in the Description of Pest section.)

Tom Turini - Fungicides Trial

A fungicides trial was evaluated by Tom Turini, University of California Cooperative Extension Farm Adviser for Fresno County at the Westside Research & Extension Station in Five Points, CA. There was no shortage of powdery mildew in the trial so field conditions allowed for a very good look at the various fungicides listed below.

Inspire Super 20 fl oz (1 st , 2 nd and 4 th application) , Bravo WS 2 pts 3 rd application,
Inspire Super 20 fl oz
Bravo Weatherstik 2 pt
Quadris 15.5 fl oz/A
Procur 480SC 8 fl oz
Procur 480SC 8fl oz rotated with Quintec 250SC 6fl oz
GWN-4617 3.4 oz curative and 10-14 day interval
GWN-4617 3.4 oz curative rotated with Quadris 15.5 fl oz on a 10-14 day interval
GWN-4617 3.4 oz curative and as needed
GWN-4617 3.4 oz + Gavel 2.0 lbs curative and as needed
GWN-4617 3.4 oz preventative and 10-14 day interval
Quintec 250SC 6fl oz
Rally 40 5.0 oz
Endura 6.5 oz
Regalia 1%
Regalia 0.5% + Quadris 15.5 fl oz
Microthiol 5 lbs
Untreated Control

The photo below was taken on September 9th in the trial showing powdery mildew was present. Tom did not charge the melon board for this project.



Milt McGiffen - Calcium Treatments Injected into Drip Irrigation

Another project at the field station in Five Points was various calcium products injected into drip irrigated melons. Due to the water shortage in 2009, this project was unable to be expanded to include furrow irrigation. Dr. McGiffen is shown in the photo below using a penetrometer to evaluate melon fruit firmness.



2010 Request For Proposals (RFP) by the Melon Research Board

The RFP for the 2010 funding cycle was sent out by the UC Liaison Dr. Mike Stanghellini on September 18, 2009. The due date for all proposals was October 20, 2009. We have received seven proposals for the review process with a total request of \$89,286. The anonymous University of California review is expected to be done in early December. We have not received any follow-up request for funding in melon food safety by Dr. Trevor Suslow.

Review of New Pesticides Registered for use in Melons in California

The list of pesticides registered for use in melons was published as a short form of the Pest Management Strategic Plan with assistance by the California Speciality Crops Council with data current as of December, 2006. The file with the Insecticide Resistance Action Code (IRAC) numbers and letters has been in the

web site maintained by the melon board. An update is being performed as there have been numerous new insecticides, herbicides, and fungicides labeled for melons. I will be searching for new registrations and not so much as new generic listings of previously registered products that have come off their patent protection.

I will be making the list available in an Excel file with the chemical and trade names, modes of action, and pests. The list is intended as an aid in using materials on a rotational basis to reduce or eliminate pest resistance.

Here are a few of the new listings since December, 2006:

herbicide - Shark EW

fungicides - Cannonball, Tanos, Folicur, MetaStar, Presidio, Previcur Flex

insecticides or miticides - Beleaf 50 SG, Coragen, Intrepid 2F, Mustang (CA), Radiant SC, Requiem 25EC, Synapse WG, Warrior, Zeal

nematicides- Nema-Q

Respectfully submitted by,
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