

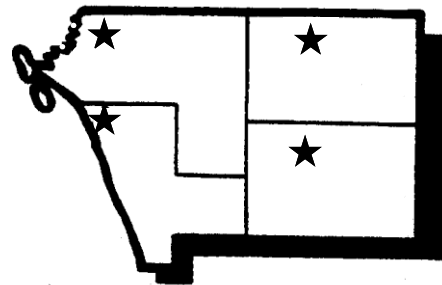
## West Central Citrus Letter

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**March 17, 2014**

### **Florida Citrus Growers' Institute, April 8**

The annual Florida Citrus Growers' Institute will be held on Tuesday, April 8<sup>th</sup> at the South Florida State College, Theatre for Performing Arts, 600 W. College Drive, Avon Park. The program will highlight three major topic areas that include: Citrus Root Mass and Root Health; Strategies for Countering HLB; and, Asian Citrus Psyllid Management & Other Citrus Pest Management.

The program will begin at 8:00 AM with registration and then presentations beginning at 8:30 AM. A sponsored lunch will be provided to all that preregister prior to April 4<sup>th</sup>.

For more information about the Institute and to register, please see the enclosed program flyer. Remember pre-registration is required prior to April 4<sup>th</sup>. You can register by email ([dorothy@ufl.edu](mailto:dorothy@ufl.edu)) by fax (863-534-0001) or phone (863-519-1042) or by mailing in the registration earlier enough for it to be received prior to April 4<sup>th</sup>.

Continuing education units (CEUs) will be offered for those that are licensed as an applicator restricted use pesticide or as a certified crop advisor.

### **On-line Pesticide Tests**

Did you know that you can now take pesticide exams on-line? Hardee County Extension Service is a regional on-line testing site with 2 computers available for restricted use pesticide license testing. On-line testing gives you instant results for the more than 16 categories. Visit <http://aesecomm.freshfromflorida.com/> to find out more information and to schedule your exam.

### **Pesticide Labels**

Have you ever had difficulty finding a pesticide label, MSDS, or a special local needs (SLN) label? If so, labels and other information can easily be found at the Crop Data Management Systems (CDMS) site. The site provides software services and maintains a database of agricultural chemical label, MSDS, WPS, SLN and DOT information from over 90 chemical companies.

For more information on where to find pesticide labels please see the CDMS website at <http://www.cdms.net/labelsmsds/lmdefault.aspx?manuf=143&t=1>.

### **New Products for Psyllid Control**

Dow Agrosiences currently has a new pesticide that is labeled for use in Florida citrus. The product has a brand name of Closer SC and a common name of sulfoxaflor. The product does allow for one application 3 days prior to bloom or during bloom. Preharvest interval is 1 day.

DuPont has recently received registration in Florida Citrus for a new chemical with a common name of cyazypyr. The product will be marketed under the brand name Exirel for foliar applications and Verimark as a soil application. The product will provide psyllid control but does have restrictions about its use during bloom. Foliar applications of Exirel during bloom are only permitted at night when bees are not foraging. Restricted entry interval is 12 hours for Exirel and 4 hours for Verimark.

As will all pesticides, the label does have additional restrictions on product use, thus be sure to review the complete label before purchase or use.

### Determining Percent Bloom

Citrus growers need to be aware of pesticide label requirements as they relate to applying insecticide products, especially during bloom period. Some pesticide products may have negative effects on pollinators like bees, thus extra caution is required when bees may be present.

In an effort to help growers to determine when peak bloom is occurring, the Citrus Flowering Monitor (<http://disc.ifas.ufl.edu/bloom/>) has been developed. The reason to monitor bloom is that when 10% of the trees are blooming, the application of bloom prohibited pesticides should cease. Monitoring should occur as the bloom period nears 90% completion, to document when pesticide application can resume. The model is fully explained in the attached document.

After reviewing the document, please do not hesitate to call if you have questions or if we can provide assistance.

### RNAi Insecticides Coming

With corn rootworm building resistance to genetically modified corn that makes its own pesticide, seed companies are working on new crops that target the insects' genes. A decade ago, researchers developed corn genetically modified to produce a protein that kills the bugs, allowing farmers to back off chemical pesticides. However, the effectiveness of Bt corn is beginning to decrease, leading farmers across the Midwest to revert to older management schemes. Seed companies are preparing a new solution: RNA-interference, sometimes called gene silencing. Researchers using the technology introduce a strand of RNA that essentially stops an organism ingesting the molecule from expressing a certain gene.

Genes are expressed through RNA that is transcribed from DNA. By introducing a piece of interfering RNA, a gene can be suppressed. RNA-interference, or RNAi, is a natural way plants and animals fight off viruses, but scientists use it as a genetic on/off switch to study and manipulate plants. Tom Clemente, a researcher in plant biotechnology at the University of Nebraska Lincoln, says RNAi was discovered in plants when researchers were trying to make flowers darker. "They were trying to make a darker, purple flower and they were getting white flowers," Clemente said. "They were trying to make more of this protein and they were making zero of the protein."

As RNAi is being studied to treat human diseases from cancer to high cholesterol, RNAi crops are already in the field. "The classic example is for virus

resistance," Clemente said. "In the state of Hawaii, the entire papaya population is papaya ringspot virus (resistant) and it is a form of RNAi that provides that resistance."

Corn could be the first row crop to attack an invading insect with RNA. Monsanto hopes to commercialize rootworm resistant corn with RNAi by the end of the decade. When a rootworm eats the corn roots, it would ingest interfering RNA that would silence a gene the rootworm can't live without. "It blocks expression of that particular gene – no other gene – and impedes the life cycle of that rootworm," Clemente said.

The question goes to the Environmental Protection Agency (EPA). At a meeting in early 2014, scientists from around the world will advise the EPA on how to assess the potential risks of RNAi crops. For his part, Tom Clemente doesn't believe the technology warrants extra scrutiny. "You can dial it in to be very specific for a gene in a particular organism," Clemente said. "Now, we can never say with a straight face that would mitigate any collateral damage in any other organism. But you can mitigate that probability to a very, very small number." Clemente says, when paired with Bt in corn, RNAi would give farmers a more durable weapon against rootworms. (*KCUR.org*, 12/30/13).

### Dates to Remember

April 8 Florida Citrus Growers' Institute, Avon Park

Sincerely,



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Enc.: Florida Citrus Growers' Institute brochure  
Determining Percent Bloom in Florida Citrus