RUTGERS
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PLANT & PEST ADVISORY

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INSIDE

Highlights of the 2009 Cranberry Growers Twilight Meeting

Ray Samulis, Burlington County Agricultural Agent

The evening of June 4th at the Marucci Blueberry/Cranberry research center was the setting for this year's Cranberry Growers Twilight Meeting sponsored by Rutgers Cooperative Extension. We began the program with some good sandwiches which were provided with the financial support of the ACGA. The program started off with a presentation by Dr. Peter Oudemans on his recent work investigating the causes of the disease Fairy Ring in New Jersey. While this disease has been around for many years, it has only recently been researched to get a handle on its life cycle and any potential weak links that might be capitalized on for control. Peter presented charts that showed what was currently known about this disease and the overlap between the various aspects such as the hyphae, conidia, and sclerotia on both cranberry and rust. Suggestions were offered for identifying this disease such as 1) take samples from the edge of the ring, 2) take a sample of about 12", 3) Look at runners under a microscope, 4) Look at samples for black infection pads and golden colored mycelium. Of course, when in doubt when identifying samples, call Peter for more help.

Next on the program was Dr. Brad Majek, extension weed specialist. He discussed that he had hoped to announce a new cranberry herbicide however the clearance did not come through as planned. However, it is still anticipated that it will occur in the near future. I will make this announcement when it occurs. Brad made a request to the growers to please tell him if you have any significant patches of dodder that could be used for potential test plots. Finally, statements had been made that there was no problem using the herbicide Calisto which might interact with certain other insecticide materials to form injury which has been reported in some other crops. A corrected statement from the company now states that there must be at least a **7 day waiting period** before or after applying Calisto and an organic phosphate insecticide such as diazinon or lorsban. **Please Note! This is different from what was stated at the meeting.** Injury in the form of whitening can occur on vines if these waiting periods are not adhered to. You can discuss this issue with the company if questions still exist.

Mr. Tim Schuler reported on the status of bee colonies in New Jersey. Bee mortality was in the mid 30's for this winter which meant it was not a particularly good year for overwintering bees. On a positive

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note, he stated that the training program to get new beekeepers started in New Jersey was very successful. After a number of years offering this program, a few attendees have expanded their bees to 50-60 colonies which are at a level that they are now looking to use the frames for pollination purposes. This is good news in that this was one of the purposes of initiating this program in the first place.

Dr Cesar Rodriguez, extension entomologist followed with an excellent presentation on identifying the common insects currently found in the cranberry beds. He then showed live samples which were collected. In addition he demonstrated the proper insect sweeping techniques in order to obtain representative samples. The audience was amazed at the variety and types of insects found and that many were not injurious to cranberries.

I was then happy to introduce the newest extension agent for Burlington County, Mike Haberland. Mike is a natural resources agent with particular specialty in water resource issues. He is currently working out of Camden County but has responsibility for both Burlington and Camden. Mike comes with a wealth of knowledge that can be utilized by the grower community.

I was the last speaker to round out the program at the end of the session. I spoke on the current status of the pesticide development industry and how it affects the types of pesticide storages we use as well as the types of PPE equipment that must be worn. Recent surveys from California show that 62% of pesticide injuries occur with workers who were not doing the pesticide applications themselves. Only 22% of the injuries occurred to the applicators themselves. This is not what many of us expected because it was thought that the applicators had the greatest exposure risk. Interestingly, only 4.8% of pesticide injuries occurred during mixing and loading which was much lower than I anticipated. Acute pesticide poisonings were discussed and I noted that one problem with properly diagnosing these types of exposures is that many of the symptoms such as headache, nausea, dizziness, and itching can occur under many conditions that are not related to pesticide usage. The evening ended with pesticide credits for those who wanted them. ❑

Insect Update

Cesar Rodriguez-Saona, Ph.D., Specialist in Entomology

Cranberries are in bloom and when bees are present your only choices of insecticides are the Insect Growth Regulators (e.g. Confirm and Intrepid) or Bt products (e.g. DiPel). These insecticides will only work against lepidopteran pests.

Blackheaded fireworm (BHFW) We should be close to peak pheromone trap catches in the Chatsworth area. Eggs will start hatching during peak bloom; thus, only insecticides listed above can be used to control BHFW larvae at this time.

Spotted fireworm (SFW) Adults SFW should start to emerge soon. Egg-laying will begin 10-14 days after the beginning of adult flight. This insect should be monitored visually. SFW eggs are laid on weeds (e.g. red maple, green brier, leather leaf, loosestrife, red root) (see picture below), and thus they can be easily detected. Managing weeds around and in the bogs will prevent SFW infestations. If eggs are not observed, then the second-generation larvae should not be a problem. However, if large number of egg masses are observed, insecticide treatment for this insect should be applied as a 1st post-pollination spray.

Egg Mass of Spotted Fireworm

***Sparganothis* fruitworm (SPARG)** SPARG adults have started to emerge, and pheromone trap catches should peak in the next 10-14 days. Chemical control for this insect should be applied as a 1st post-bloom spray.

About the New Insecticides

Lately, growers have frequently asked me about the comparable efficacy of the newly-registered insecticides on major cranberry pests in New Jersey. Below (on page 3) I provide a Table with this information. The information provided is based on results from insecticide trials conducted at the PE Marucci Center, data from insecticide trials from other states, and pests listed on the insecticide label.

I encourage growers to use these insecticides. However, because they are new, growers need to use them with care. If used, I recommend treating a section of your farm (I will be glad to hear from you on your experiences with these chemicals). More research is being conducted to fully understand the efficacy of these insecticides (particularly on timing of applications); this information will be provided at future growers' meetings.

About the Use of Stickers

A few growers have asked me whether they should use a sticker with Intrepid or Delegate. To answer this question I contacted

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Brian Olson (Crop Protection R&D, Dow AgroSciences) and Patti Webb (Mid-Atlantic Sales Rep., Dow AgroSciences). They both agreed that neither product needs a sticker because they both have long residual control without a sticker. However, a non-ionic surfactant might help growers with their spray coverage and getting the product to the insect.

Table on Efficacy of Newly-Registered Insecticides against Major Cranberry Pests in New Jersey

Target Pest	New Insecticides: Efficacy Rating[1]				
	Intrepid[2]	Delegate[3]	Avaunt[3]	Assail[3,4]	Actara[3,4]
Cranberry Fruitworm	++++	++++	++	++++	–
Sparganothis Fruitworm	++++	++++	+	++	–
Cranberry Blossom worm	++++	++++	+++	–	–
Blackheaded Fireworm	++++	++++	++++	–	–
Spotted Fireworm	++++	++++	++	++	–
Gypsy Moth	++++	++++	++++	++++	–
Bluntnosed Leafhopper	–	–	–	++++	++++

[1] ++++ = excellent, +++ = good, ++ = fair, + = poor, -- = not tested or not recommended

[2] Can be used during bloom

[3] Do not use during bloom

[4] Not recommended before bloom

Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged below normal, averaging 62 degrees north, 65 degrees central and 65 degrees south. Extremes were 90 degrees at Pomona on the 3rd, and 39 degrees at Charlotteburg on the 2nd. Weekly rainfall averaged 1.65 inches north, 2.19 inches central, and 2.38 inches south. The heaviest 24 hour total reported was 1.72 inches at Pomona on the 5th to 6th. Estimated soil moisture, in percent of field capacity, this past week averaged 96 percent north, 93 percent central and 90 percent south. Four inch soil temperatures averaged 61 degrees north, 64 degrees central and 65 degrees south.

Weather Summary for the Week Ending 8 am Monday 6/ 8/ 9

	RAINFALL			TEMPERATURE				GDD BASE50		MON
WEATHER STATIONS	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	%FC
BELVIDERE BRIDGE	1.53	11.00	-1.41	81	45	62.	-4	528	64	92
CANOE BROOK *	2.56	9.03	-4.56	86	40	61.	-5	472	45	94
CHARLOTTEBURG	1.20	9.40	-4.11	82	39	62.	-1	479	170	94
FLEMINGTON	1.87	12.74	-.16	85	52	64.	-2	622	175	95
NEWTON	1.09	8.31	-3.76	80	41	61.	-3	525	165	94
FREEHOLD	2.38	13.28	.47	84	55	66.	-2	651	131	93
LONG BRANCH	1.93	14.00	.91	82	50	64.	-3	533	67	87
NEW BRUNSWICK	2.62	13.70	1.12	84	54	66.	-3	641	83	95
TOMS RIVER	1.69	12.53	-.22	86	44	64.	-1	571	98	87
TRENTON	2.34	12.08	.48	83	44	64.	-5	708	103	87
CAPE MAY COURT HOUSE	2.27	13.13	1.88	87	48	64.	-3	661	131	89
DOWNSTOWN	2.26	11.14	-.37	86	43	64.	-5	700	81	89
GLASSBORO	2.19	15.09	2.76	84	52	68.	-1	733	134	87
HAMMONTON	2.10	11.22	-.78	88	45	66.	-3	767	177	86
POMONA	2.60	14.07	3.02	90	43	65.	-2	741	226	87
SEABROOK	2.85	12.98	2.24	87	50	64.	-5	699	75	88
SOUTH HARRISON *	1.99	4.80	-7.27	86	47	65	NA	NA	NA	NA

WES KLINE -- GDD BASE 40 PINEY HOLLOW LAST WEEK 192 (Ending 6/1/09) THIS WEEK 168 (Ending 6/8/09)

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