RUTGERS COOPERATIVE RESEARCH & EXTENSION AT THE NEW JERSEY AGRICULTURAL EXPERIMENT STATION

PLANT & PEST ADVISORY

CRANBERRY EDITION $1.50 JUNE 6, 2006

INSIDE

Proposed Water Supply Allocation Amendments

Raymond Samulis, Burlington County Agricultural Agent

The NJDEP is in the process of revising and amending the rules and regulations that affect the agricultural water use certifica tions. The changes are under the ruling NJAC 7:20A. I and other Rutgers Cooperative Research and Extension Agents have put considerable time into commenting on the proposed changes on behalf of agriculture. The proposed changes are quite numerous and wide in scope. One new introduction proposed is that farmers would have to submit an "Agricultural Development Plan" with water applications. At the current time, we do not know exactly what this entails, or how comprehensive it might be. Considerable emphasis is proposed for use of "HUC-14" hydrological unit code system for identifying drainage areas. Likewise, the update proposes that information be supplied by growers for the amount of "impervious sources." The issue of replacement wells is highly defined.

In section 7:20A-1.4, there are specific proposed regulations for cranberry operations. Section 1 deals with winter flood modifications. Section 2, with assessing impacts of upstream water withdrawals on cranberry growing operations. Section 3, with water certification for cranberry growers shall remain in effect until it is cancelled, expires, or is revoked by DEP.

This summary is only a small sampling of the proposed changes in the water allocation program. Comments from growers can be submitted in writing, or they can be made in person at one of two public hearings to be held at the EcoComplex, 1200 Florence-Columbus Road, Bordentown, and NJDEP Hearing Room, 1st Floor, 401 East State Street, Trenton. The reference materials I have been given do not yet specify the dates or times of these hearings. I will keep everyone posted as I receive more information on this.

The bottom line – cranberry growers should review these proposed changes and make comments, as these changes will have an impact on your growing operations. ❑

Insect Update

Cesar Rodriguez-Saona, Ph.D., Specialist in Entomology and Dan Schiffhauer, Agricultural Specialist, Ocean Spray Cranberries

Our scouting in the last weeks continued to reveal the presence of several lepidopteran larvae including: **blossom worm**, **false armyworm**, **gypsy moth**, **Sparganothis fruitworm**, and **spotted fireworm**, as the most common worms. Although numbers for individual species in several farms remained low, in many beds the combined numbers of larvae were above threshold (4.5 larvae/25 sweeps for blossom worm, gypsy moth, and false armyworm). Since our last newsletter, growers who had larvae above the indicated threshold have already sprayed for these pests (pre-bloom spray).

During bloom, when bees are present, your choice of insecticides against lepidopteran pests are reduced to those containing insect growth regulators (e.g., Confirm 2F and Intrepid 2F) or products containing the bacteria *Bacillus thuringiensis* (e.g., DiPel ES and DiPel DF). Insect growth regulators provide good control against all instars, while DiPel works better against early instars. SpinTor 2SC is another selective, reduced-risk product effective against lepidopterans, although caution should be taken because it can be toxic to honeybees. To minimize exposure to bees, when using SpinTor during bloom, applications should be conducted at dusk.

We have seen increased numbers of two secondary pests in the last weeks: **blunt-nosed leafhopper** and **thrips**.

Blunt-nosed leafhoppers are a problem because they can transmit **false blossom disease** and not due to direct damage caused by feeding. At this time, we recommend growers to scout for this disease to prevent its spread. A distinct symptom of this disease is the malformation of the flower. When the diseased blossoms open, they stand erect, like a daisy flower, instead of turning downward (for the normal healthy blossoms). In the early stages of the disease, the petals may be redder than normal and the calyx cup is flattened. The diseased flowers and stems will become dry and brown and remain on the vine for a year or two. The diseased blossoms rarely produce berries and, if so, these berries are small and hardly ever ripen.

In advanced cases of the disease, the floral parts are green, small, and with little resemblance to flowers. Often a leafy stem grows out of the middle of the diseased flower. The leaves of diseased plants are smaller than normal, more reddish, and grow nearly parallel to the stems. Diseased stems will send out many branches forming what is called a *witches'-broom*.

There is no known cure for false blossom. The only recommended method to stop spread of the disease within a bog is to control leafhoppers. Leafhoppers can carry the false blossom disease from plant to plant. If you observe the symptoms described above and have large populations of leafhoppers, we recommend treatment with a broad-spectrum insecticide (e.g., Diazinon, Lorsban). We are currently testing more selective, reduced-risk options for monitoring and management of this insect.

Thrips continue to be common in several beds. As indicated in the previous newsletter, the economic importance of thrips in cranberries remains unknown and, at this time, we are unable to provide any treatment recommendations. Thrips are very small insects; they are hard to see with the naked eye but easily detected with the aid of a microscope. We will provide more information as we learn more about this insect.

Other insects that are found in large numbers in our samples are **springtails** (Collembola). These are very small, black, round, and very active insects. These insects are not damaging to cranberries. They are detritivores (they feed on fallen plant material). ❑

Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged much above normal, averaging 71 degrees north, 71 degrees central and 73 degrees south. Extremes were 94 degrees at Seabrook on the 31st, and 53 degrees at Freehold and Charlotteburg on the 4th. Weekly rainfall averaged 2.38 inches north, 2.65 inches central, and 1.14 inches south. The heaviest 24 hour total reported was 2.17 inches at New Brunswick on the 2nd to 3rd. Estimated soil moisture, in percent of field capacity, this past week averaged 88 percent north, 83 percent central and 64 percent south. Four inch soil temperatures averaged 71 degrees north, 71 degrees central and 72 degrees south.

Weather Summary for the Week Ending 8 am Monday 6/ 5/ 6

	RAINFALL			TEMPERATURE				GDD BASE50		MON
WEATHER STATIONS	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	%FC
CANOE BROOK	1.94	9.79	-3.42	93	55	72.	7	640	260	99
CHARLOTTEBURG	2.05	10.73	-2.36	89	53	69.	7	482	212	100
FLEMINGTON	3.14	12.02	-.50	91	54	72.	6	613	214	98
NEWTON	missing									
FREEHOLD	2.96	11.64	-.82	91	53	71.	4	627	159	99
LONG BRANCH	2.08	11.68	-1.10	83	57	69.	3	541	125	100
NEW BRUNSWICK	4.00	11.39	-.86	91	57	72.	4	675	173	98
TOMS RIVER	1.36	8.85	-3.56	88	57	71.	7	604	174	92
TRENTON	2.84	10.26	-1.02	90	58	73.	5	691	142	96
CAPE MAY COURT HOUSE	.28	5.95	-4.98	83	56	69.	3	623	134	53
DOWNSTOWN	1.01	6.42	-4.78	92	56	72.	4	675	112	78
GLASSBORO	1.93	8.73	-3.24	92	59	75.	7	790	247	95
HAMMONTON	1.06	7.45	-4.20	92	58	74.	6	723	188	80
POMONA	.76	8.16	-2.61	86	55	71.	5	641	177	68
SEABROOK	1.83	7.87	-2.52	94	57	74.	6	838	270	98
SOUTH HARRISON	1.57	7.52	-4.30	91	57	73	NA	785	NA	NA

*some past data is missing and therefore cumulative values and departures will be off.

WES KLINE — GDD BASE 40 PINEY HOLLOW

LAST WEEK 171 (Ending 5/29/06)

THIS WEEK 229 (Ending 6/5/06)

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