

# The Blueberry Bulletin

*A Weekly Update to Growers*

April 17, 2019

Vol. 35, No. 1

## **AT A GLANCE...**

### BLUEBERRY GROWER TWILIGHT MEETING

TUESDAY, APRIL 23, 2019 @ 5:30PM  
MACRIE BROTHERS BLUEBERRY FARM  
7691 WEYMOUTH RD.  
HAMMONTON, NJ 08037  
FOR DIRECTIONS, CALL 609-561-6822

Visit the Blueberry Bulletin webpage at  
[www.njaes.rutgers.edu/blueberry-bulletin](http://www.njaes.rutgers.edu/blueberry-bulletin)

## **BLUEBERRY CULTURE**

Gary C. Pavlis, Ph. D.  
County Agricultural Agent

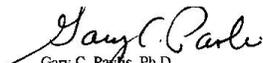
### **Dear Blueberry Grower:**

As we begin the new season I hope you had a great winter. This is the first edition of the Blueberry Bulletin. Also, 'AT A GLANCE...' will continue, and is a summary of each week's information. I hope it is something you can and will use.

Any comments, suggestions, constructive criticism about *The Blueberry Bulletin* newsletter would be greatly appreciated. Also if you have any specific problems which you feel should be addressed, please let me know.

Help me to serve you better.

Here's hoping for all a very successful year.

  
Gary C. Pavlis, Ph.D.  
Atlantic County Agricultural Agent

## BLUEBERRY INSECT

**Dr. Cesar Rodriguez-Saona, Extension Specialist in Blueberry Entomology, Rutgers University**

**Mr. Dean Polk, IPM Agent – Fruit**

**Ms. Carrie Denson, IPM Program Associate – Fruit**

Scouting results this past week showed that **cranberry weevil** increased significantly in Atlantic County, and to a lesser degree in Burlington County. Out of the 48 fields scouted in Atlantic County, four of them were above the threshold for cranberry weevil. Threshold for treatment is five weevils per bush; the highest count was 13.6 per bush.

A few caterpillars were also found, although numbers were minimal. The average in Atlantic County was 0.006, with a high of 0.1 per 100 blossom clusters. These were mainly **spanworms**. Treatments are justified only when caterpillars are above 1 per 100 blossom/fruit clusters.

### **Cranberry Weevil**

*Life cycle:* Adults move from wooded areas, where they overwinter, into the fields; however, adults occasionally overwinter inside blueberry fields if left unmanaged. The adults are small (1/16 inch long), dark reddish brown beetles, with few whitish bands on the wings, and a long snout (see Pictures 1,2). Eggs are laid singly through the feeding holes into the flower. Larvae feed from egg hatch to pupation within the flower buds in which they were deposited as eggs. Pupation occurs within the infested flowers and adults emerge in late May. Infested flowers turn purplish, fail to open, and eventually fall to the ground.

*Scouting and Control:* To monitor adults, use a beating tray under each bush and hit the bush to dislodge weevils; repeat on both sides of the bush to obtain number of weevils per bush. Because weevils are abundant near the woods where they overwinter, sampling for weevils should be intensified along the edge rows near the woods. Adults are found on sunny days. Monitor at least 10 bushes per sample site. Spraying should be confined to these “hot” spots on edge rows. Treatment thresholds are 5 weevils per bush or 20% of blossom clusters with feeding injury (i.e., at least 1 injury/puncture per 5 clusters) (see Picture 1). Asana, Avaunt, Imidan, or Mustang Max are recommended for cranberry weevil control.



**Picture 1. Cranberry weevil and damage to blueberry buds this past week. Photo by Carrie Denson.**



**Picture 2: Cranberry Weevil on a blueberry flower bud. Photo by D. Polk.**

# Optimizing Preemergence Weed Control in Established Blueberry for 2019

Thierry Besancon, Asst. Extension Specialist in Weed Science

Several long-residual herbicides with different modes of action (MOA) are labeled for established blueberry. In order to reduce the potential of selecting for herbicide-resistant weeds, it is highly recommended mixing two residual herbicides with different MOA whenever you apply preemergence herbicides. Make sure the herbicides you plan to apply will be effective at controlling the weed species in your field by checking the herbicide label. Usually, residual herbicides will suppress weed for 6 to 8 weeks depending on irrigation as well as soil and weather conditions. After this period, another residual herbicide can be needed to control weeds through harvest and could be mixed with a postemergence herbicides to control emerged weeds. **Roundup** (glyphosate), **Rely 280** (glufosinate,) and **Gramoxone** (paraquat) are postemergence herbicides that may be applied with preemergence herbicides **before bud break** with little risk for crop injury. **Casoron (dichlobenil)** is a cellulose synthesis inhibitor recommended for fall application to control many annual and perennial broadleaves, grasses and yellow nutsedge. The photosynthesis inhibitors (PS II inhibitors) have a broad spectrum of control and will be effective against many broadleaves and annual grasses when applied in spring. **Karmex** (diuron) and **Princep** (simazine) have relatively low solubility and have been very safe on blueberries. **Sinbar** (terbacil) has a longer residual life in the soil and also is more soluble, so it should be used infrequently on light, wet soils. **Velpar** (hexazinone) is very soluble and should not be used on very sandy or wet soils. **Kerb** (pronamide) and **Surflan** (oryzalin) are mitosis inhibitor that will be effective at controlling many annual grass species for 4 to 6 weeks after application. Fall or spring application of **Kerb** can also be considered for perennial quackgrass suppression. **Solicam** (norflurazon) is a pigment inhibitor that may be applied in fall or spring primarily for

annual grass and sedges control. **Solicam** may also provide partial control of many broadleaf weeds as well as of yellow nutsedge. **Chateau** (flumioxazin), **Zeus XC** (sulfentrazone), and **Zeus Prime XC** (sulfentrazone plus carfentrazone) are PPO inhibitors with activity against many broadleaves when applied preemergence in fall. They also have some postemergence activity on newly emerged seedlings of annual weeds. **Chateau** has a 7 day preharvest interval (PHI) and **Zeus/Zeus Prime** have 3 day PHI, and can therefore be applied later in the season to extend preemergence broadleaves control into late summer. **Callisto** (mesotrione) is an HPPD inhibitor recommended for spring application to control many annual broadleaf weeds as well as annual sedges. It controls large crabgrass but no other grasses, such as goosegrass. **Callisto** may be used as a broadcast spray between rows to control broadleaves and crabgrass without injuring the fescue sod. **Matrix** (rimsulfuron) and **Sandea** (halosulfuron) are ALS inhibitors that have both preemergence and postemergence activity. They control most annual broadleaves but are weak on common groundsel, common lambsquarters and eastern black nightshade. **Sandea** is recommended for postemergence control of yellow nutsedge. However, these two herbicides will not control ALS resistant weeds (horseweed, ragweed...) already widespread in New Jersey. Thus, these herbicides should always be tank mixed with a partner effective at controlling these weeds. **Devrinol** (napropamide) and **Dual Magnum** (s-metolachlor) are long chain fatty acid inhibitor. Devrinol will provide good control of annual grasses and should therefore be tank mixed with a PSII or a PPO inhibitor for controlling broadleaf weeds. Dual Magnum has a shorter residual activity compared to other blueberry residual herbicides but will provides good yellow nutsedge, eastern black nightshade and pigweed control.

