

The Blueberry Bulletin

A Weekly Update to Growers

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- ❖ Visit the Blueberry Bulletin webpage at njaes.rutgers.edu/blueberry-bulletin
- ❖ The 2020 Commercial Blueberry Pest Control Recommendations for New Jersey is available on njaes.rutgers.edu

BLUEBERRY CULTURE

Dr. Gary C. Pavlis, Ph.D.

Atlantic County Agricultural Agent

Fertilizing Newly Planted Fields: Growers putting in a new field have requested information on fertilization. First, no fertilizer should be placed in the planting hole. When the plants are set out in the fields, usually in April or early May, the fruit buds should be rubbed or pruned off. With no crop present and only a small area of soil requiring fertilizer, about 125 lbs/A of 10-10-10 is sufficient (1 1/2 oz./bush). Sidedressing with a fertilizing spreader will require higher rates to compensate for open areas between plants. Special caution should be observed as to the time of fertilizing after planting. Fertilizer should not be applied until a second growth starts. For example, if plants are set out while

dormant, do not fertilize while the first crop of leaves is unfolding and changing from light green to dark green, wait for new growth. Making the first field application too soon has frequently caused reddened foliage and a delay of several weeks in the starting of new growth. Keep the fertilizer at least 2 inches away from the crowns of the young plants. In late-June, the application of fertilizer is usually made.

Note: Never put leaves, chips, sawdust and etc. in the planting hole unless it has been composted for at least 2 years. Fresh organic matter ties up all nutrients and starves the blueberry plants.

Online Blueberry Twilight Meetings: We are unable to offer pesticide applicator recertification credits at this time. NJDEP is considering a number of options to ensure that those whose recertification period ends this year will still have a chance to earn the necessary credits.

Pesticide applicators can obtain 2 Core units and 4 units in each Category that they are certified in over their 5 year recertification period by completing the following online courses:

<https://www.nj.gov/dep/enforcement/pcp/bpo-recert.htm>

DISEASES

By Peter V. Oudemans, Ph.D.

Professor and Extension Specialist

Plant Pathology

With the series of frosts over the past two weeks the question that has come up repeatedly concerns the use of gibberellin to promote fruit set. The basis for this question lies in the knowledge that soon after pollination has occurred the flower transforms from a non-growing state to rapidly developing fruit. Production of gibberellin is triggered by pollination and it, in part, is responsible for this transformation. Applications of gibberellin can also trigger this change from non-growing or static state to fruit development in the absence of pollination.

Research has demonstrated that gibberellin application can significantly increase fruit set under a variety of conditions. This increase in fruit set often comes with a reduction in fruit size, seed number and stemmy fruit as well as a delay in ripening. As a result, the cost of the application may not always justify the benefit. However, there are several known factors that play into the successful use of gibberellins. These factors include timing, rate, number of applications and conditions during and after application. There is also considerable variation in the level of success with these materials. Researchers in Georgia (NeSmith and Krewer) and Michigan (Hansen) have lead investigations on the use of gibberellin and recommendations have been developed from that work.

The benefit, especially with frost affected flowers, is that gibberellin application can help set flowers that would otherwise be incapable of being pollinated. Although,

even flowers with damaged ovaries have been shown to make fruit, as the severity of the damage increases the likelihood for marketable fruit declines.

For a gibberellin application to be effective applications should be made shortly following a frost event and again 10-18 days later. Since this application can inhibit natural pollination an assessment should be made on the level of damage and if the application should be delayed until bee pollination has reached a desired level. The first application should be made in-bloom since post bloom applications are much less effective and could have undesirable side effects. Rates are provided on the label and should not exceed 80 g ai/acre total (ie. 2 applications of 40g or one of 80g). For the material to be active there must be sufficient contact time with the plant to be taken up. Up to 50% activity is achieved within the first 4 hours of contact and the remaining activity is taken up over the next 72hrs. Any wash-off prior to this time may require re-application. Applications should be made in sufficient water to fully wet the plant and the water diluent should be between pH 4-8.5.

Keep in mind that gibberellin is a very potent growth regulator that is involved in a diversity of functions in the plant. This ranges from fruit thinning, flower bud suppression, shoot elongation, as well fruit sizing. These different effects are achieved with different rates and timing of application. It is therefore critical to use optimal timing.

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

Leps and Other ‘Worm’ Larvae: Levels of leps have been minimal this week. Observed a few spanworm and green fruitworm, no treatments are needed.

Plum Curculio (PC): PC is starting to be active even in the cold weather; however, levels are low.

Botrytis, Phomopsis and Mummy Berry Strikes: Scouting has just been started this past week.

Levels are low but assuming we will start to see more as the weeks progress.

Berry Damage in our observation in fields:

A number of developing berries has been seen with various levels of damage. For an in depth look at the effects of cold temperatures on fruit, please see Nick Vorsa’s slides from the 4/28 virtual twilight meeting, posted on the Plant and Pest Advisory website.

Insect Incidence						
Week Ending	% Bud Feeding		CBW/Bush (Beating Tray)		Leps./Bush (Beating Tray)	PC/Bush (Beating Tray)
	Avg	Max	Avg	Max	Avg	Avg
3/27	12.8	40	0.68	8.3	.01	
4/3	0	0	0.8	7.6	0.0	
4/11	0	0	2.06	19.6	0.003	
4/18	-	-	-	-	0.01	
4/21	-	-	-	-	0.005	0.004
4/28	-	-	-	-	0.007	0.002

CBW = cranberry weevil; PC = plum curculio