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THE BLUEBERRY BULLETIN

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A Weekly Update to Growers

* Visit the Blueberry Bulletin webpage at njaes.rutgers.edu/blueberry-bulletin
* The 2024 Commercial Blueberry Pest Control Recommendations for New Jersey is available on https://njaes.rutgers.edu/pubs/

BLUEBERRY CULTURE

Dr. Gary C. Pavlis, Ph.D., Atlantic County Agriculture Agent

Blueberry buds are pushing this week, so bloom is just around the corner. This is an important time for growers because it is the perfect time to apply the NPK application that blueberry plants need. In the old days, fertilizer applications were made when the plants were still dormant. This is inefficient because if the plant is dormant it isn't taking up nutrients. Stands to reason. The problem is, where is the fertilizer by the time uptake begins. The hope is that it has moved down to the root zone and is available to the plant. The reality is that some of it is and some of it has been washed away or moved past the root zone and is lost.

Lost fertilizer is lost money. As readers of this newsletter are aware, our research has shown that applying NPK when the plant can pick it up will increase yield dramatically. To put a finer point on it, when the blueberry plant is supplied with NPK a little at a time over the six-week period starting at bud break the results will be the highest yield possible. It is probably not feasible to apply the needed NPK every day over that six-week period, but some form of that small dosing would be recommended. Most growers using fertigation apply NPK once a week for the six weeks. This is probably the best method we have right now though "spoon feeding" the plants even more would probably be beneficial.

Lastly, I cannot emphasize more strongly that if you are not taking leaf samples to monitor your nutrient regime your fertilizer program is not efficient, and it is costing you money with reduced yield. Doing what you always have done or just using a soil analysis is not in the long run a sustainable practice.

Tips on Protecting Blueberries from Freezes

1. Dew point is important because water vapor slows the rate of temperature drop during a freeze.
2. A low dew point is always worse that a high dew point. Dry air loses heat faster.
3. Wind can be bad or good during a freeze.
4. Bad - If overhead irrigation is being used, wind is a serious problem.
5. Good – If water is not being applied, the wind prevents a cold pool of air.
6. Pine mulch results in lower air temperatures at the flower level by as much as 3 degrees.
7. Dry soil and any weeds, alive or dead, lower the temperature in the field.
8. Wet soil has been reported to conduct heat from the warm depths of the soil to the cold surface eight times greater than dry soils.
9. Applying irrigation either from overhead or trickle before the freeze event has been found to be beneficial.

Temperatures at which damage occurs depending on the stage of bud development

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Stage 1 – Dormant bud. No visible signs of swelling. Note bud scales are very tight.

Stage 2 – Visible bud swelling, scales starting to separate. Bud is leaving dormancy.

Stage 3 – Bud scales noticeably separated. Tips of flowers beginning to be visible.

Stage 4 – Bud scales have dropped. Individual flowers distinguishable. Bud has a "pineapple" look to it.

Stage 5 – Individual flowers separated, corollas elongated, but not yet open.

Stage 6 – Corollas completely elongated, expanded, and open. This is the time when flower can be pollinated.

Gary C. Pavlis, Ph.D.
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