

Subject: New England Grape Notes – Winter issue and meeting announcements

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Date: 11/30/17, 3:58 PM

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New England Grape Notes - Nov. 1, 2017

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announcements**



Grape Root Borer – an emerging problem

Joe Fiola – University of Maryland



[*Editors Note: We have not found Grape Root Borer in Massachusetts or points north yet, but there is some evidence that it might be present in or near the southern borders of New England. For this reason, it seems prudent to learn more about this pest and keep an eye out for it. S. Schloemann.*]

Martin Keen owns a vineyard in Southeastern PA and has been receiving NE-SARE grants to do applied research on **Grape Root Borer** (GRB) in the region. He has constructed a website compiling the data from his research including background, maps of distribution based on trap catches, vine damage, life cycle information, and pheromone/trapping info. The northern tier counties of Maryland are in a high threat area for GRB. It has been responsible for the slow decline of vines in Maryland but often goes mis-diagnosed because the damage is underground. The URL is www.graperootborer.com. I hope you find this helpful and thanks to Martin for sharing his info.

What We have Learned about Crown Gall

Thomas Burr, Cornell Univ.

[*Editors Note: Below is an excerpt from a larger article from Appellation Cornell. The whole publication can be found at: <https://grapesandwine.cals.cornell.edu/newsletters/appellation-cornell/>*]

I appreciate having the opportunity to write this review in which I summarize research accomplishments made by members of my laboratory on grape crown gall research that I feel are most relevant to the NY grape industry.

Starting point. A key discovery made in Hungary in the late 1960's was that *Agrobacterium vitis* (at that time called *A. tumefaciens*) survives



systemically in grapevines and therefore is spread in dormant cuttings (Lehoczky, 1971) (Figure 1). I was fortunate in the 1980's to meet Dr. Janus Lehoczky and collaborate throughout my career with Hungarian scientists as well as those from several other regions of the world where grape crown gall occurs. Our overriding goals were to advance the understanding of crown gall biology in vineyards as well as develop management tools for the disease.

Early on, we found that both gall-forming and non-gall-forming strains of *A. vitis* are common in grapevines. The gall-forming strains causes crown gall whereas both types cause a necrosis (tissue death) that is most easily observed on grape roots. The significance of necrosis on early graft strength and vine growth are currently being researched, as discussed below.



Genetic diversity. A collaborative research project with Dr. Leon Otten revealed that *A. vitis* is highly diverse genetically (Otten et al. 1990). We determined this by examining the variability of a genetic region in the bacterium that is required for causing crown gall infections. An extension of this study was the opportunity to study crown gall and strains of *A. vitis* from Turkey. This work, done by a Turkish graduate student who did a study leave in Geneva, characterized strains of the pathogen from central Turkey that were isolated from "local varieties" that had been planted in the region for many years (Argun et al. 2001). These results are important when considering how the pathogen has evolved and how the disease might be managed. They also shed light on why differences might be observed in grape species resistance to crown gall and how the diversity impacts development of biological controls. *To continue reading, click [here](#).* (Source: *Appellation Cornell, Nov. 27, 2017*)

Upcoming Meetings:

December 13, 2017 - Two viticulture sessions (1 on wine grapes, 1 on table grapes), will be held as part of the [New England Vegetable & Fruit Conference](#) in Manchester NH. There are many other sessions over the 3-day conference that might also be of interest. In addition, there is an extensive Trade Show with many vendors of interest to grape growers. A combined 4.5 pesticide license recertification credits are awarded for the two viticulture sessions for those who need them. For more program information and to register, go to: <https://newenglandvfc.org>.

January 10, 2018 - UNH Extension worked with the NH Winery Association to set up a day-long workshop with Wayne Wilcox that will focus on vineyard disease management. It should be in-depth and useful for vineyard managers, and is accessible to folks in eastern Mass and southern Maine as well as New Hampshire. The workshop is taking place in Lee NH, and will offer many pesticide credits.

The flier is available here:

<https://extension.unh.edu/events/files/BF4C947F-5056-A432-4F12A40A7CD78D06.pdf>

And the events listing here:

https://extension.unh.edu/events/index.cfm?e=app.event&event_id=43958

January 11, 2018 - University of Maine Extension is holding a Viticulture Workshop for Beginning

Growers as part of the 3-day [Maine Agricultural Trades Show](#) at the Augusta Civic Center in Augusta, Maine. Details of this event will be posted soon.

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