

Newsletter

2019
SUMMER
MEETING
HIGHLIGHTS

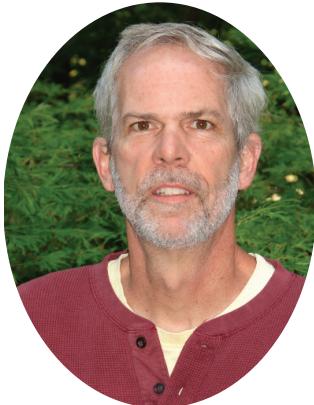
Letter from the President

NATGA recently had the summer gathering on August 10th which was by all accounts quite successful (more inside). On behalf of NATGA, I wish to extend our gratitude to Dr. Thomas Powell for hosting the event at Burwell Farms. It was well attended with nearly 90 participating. Also ‘thank you’ to Richard Franks and Grover Moore, both with Burwell Farms, for getting the word out and planning the event so well.

NATGA Vice President, Dr. Don Detmer, has been quite busy creating the International Scientific Advisory Committee (more inside newsletter). Don expects to have this group up and running in 2020 with webinars covering all aspects of truffle production and research. We are very excited about this project and the added benefit it brings to the membership.

The Executive Committee has been busy planning the upcoming 2020 Annual Conference. We are excited about the program and the location for our meeting. It will be held on the Johnson & Wales University campus in downtown Charlotte, North Carolina on February 21st, 22nd, and 23rd. Johnson & Wales is a culinary school, and their chefs and students are excited to provide our truffle centric banquet meal. Our host hotel, the Hilton DoubleTree, is on the J&W campus. It is very close to our meeting space and for exploring downtown Charlotte.

We have added a ‘Truffles 101’ session for new participants considering an orchard and wanting to learn more. The Saturday program will include lectures on orchard pruning, truffles native to North America with commercial promise, understanding soil test reports, irrigation strategies for maximum production, and supply chain topics. We will also incorporate an ‘Ask the Expert’ forum on Sunday morning which will no doubt entail lively debate.



The details of the conference and registration information can be found on the website (www.trufflegrowers.com) as they are posted and updated. We will also be sending reminders out from time to time this fall and as the dates approach early next year. In the meantime, don’t hesitate to reach out to me if you have questions or comments.

Please keep in touch with your EC, and let us know what is on your mind. We’d love to hear from you.



Brian Upchurch

Burwell Farms Hosts Summer Meeting

Written by Ray Prince

The 2019 summer meeting of NATGA was hosted by Dr. Powell from Burwell Farms in Warrenton, NC on August 10th. The meeting consisted of a barbecue lunch, a tour of the site where Bianchetto truffles are being grown, and remarks by Richard Franks (with Burwell Farms) and Brian Upchurch from NATGA. Also in attendance were several representatives of local governments with an interest in whether truffles might be an opportunity to increase the income of farmers in their area.

Mr. Franks explained that the orchard where the Bianchetto truffles grow was planted in inoculated Loblolly trees rather than the oak trees traditionally used in Europe. He thanked Nancy Rosborough, the owner of Mycorrhiza Biotech, for her help and guidance in getting the orchard started. He pointed out that they began harvesting truffles only three and a half years after planting the trees. He also described the somewhat unusual technique of cultivation the ground between the trees in the spring.

Brian's presentation began with a status report of the truffle industry in the U.S. and in North Carolina. He pointed out that, although there is probably between 100 to 200 truffle orchards in the U.S., there still exists significant domestic and international opportunities for U.S. growers to increase their sales. Brian spoke about the need to build an infrastructure of support for truffle growers in the form of greater expertise at the U.S. and state Departments of Agriculture, more research targeted at improving the success rate and yields on orchards, and expanded data on market conditions. He also discussed the need for improved certification of inputs into, and products from, truffle orchards. Finally, he reminded the audience of the up-coming NATGA winter meeting in February at Johnson and Wales University in Charlotte, NC.



COURTESY: MIKE MAYSE PHOTOGRAPHY

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Probably the most important message about growing truffles to come out of the summer meeting was the importance of selecting host trees that are resistant to the prevalent diseases in your area.

Is your truffle grove ready for Winter?

– Brian Upchurch

Growing truffles is unlike most other agricultural crops. We are, in effect, managing two crops rather than one. Obviously, truffles are the primary focus of our efforts, but we are also managing the host trees above them in hopes of maximizing our truffle yields.

When considering host trees, cold-hardiness is a frequent topic of discussion. Evolution has sorted out which plants like to live where, but since humans are now moving seed and plants around, that arrangement is often no longer applicable. Ideally, we should choose host trees well adapted to our climate and soils. If the host tree cannot survive the conditions of a given location, then truffle harvests become moot. If the host tree is not native to our location, we have the potential for problems. Sufficient cold hardiness is one of those potential problems.

While we cannot control the weather, there are pro-active steps growers can take to mitigate potential damage from cold temperature extremes. We often refer to the USDA Cold Hardiness Zones to provide an educated guess as to whether a given tree species will thrive in a particular area. While this does provide helpful insight, it is not a complete picture of the many factors at play. Cold hardiness is a complex issue. Temperatures are only one of the many factors which determine a plant's success or failure in a specific location.

Cold hardiness is the interaction of the plant's genetics (including seed provenance), age, overall health, air temperature, soil temperature, day length, moisture levels in the plant tissues, the speed at which cold temperatures arrive, temperature fluctuations, and the duration of an extreme cold event. I have witnessed significant damage in trees from 20 degrees Fahrenheit in early November, when the same plant was perfectly fine after -5 degrees

COURTESY: MIKE MAYSE PHOTOGRAPHY



Fahrenheit the preceding January. More than one reference book states with confidence the particular plants in question are cold hardy to USDA zone 5. I live in zone 7a. Plants, for the most part, do not read books, and the USDA cold hardiness zone maps and reference books are not perfect indicators.

As we head into fall and the changing seasons, we can make decisions now that will affect our host trees in January or February when the coldest days and nights descend upon our orchards. For example, pruning can stimulate new shoot growth. If active growth is present when subfreezing temps arrive, the tree will likely be damaged, even beyond just the new growth. For that reason, pruning should cease at least 6 weeks before the first frost is anticipated. If pruning is done late, and the subsequent temps are warm and moisture is adequate, the stems may not be properly 'hardened off' when cold temps do arrive, and will likely suffer damage.

(story continues on page 4)

(Is your truffle grove ready for Winter cont'd)

For much of the country, October is the driest month of the year. Along with shorter days, those drier conditions encourage dormancy in plants. Irrigation should be reduced during the month or so prior to frost to mimic nature and promote dormancy. However, nothing is ever simple. Those same plants will tolerate cold extremes later in the season much better when they have a higher moisture.

While most of us do not use fertilizer or use it sparingly, it should not be present or active late summer into fall. Nitrogen is especially problematic at this point in the season. Any fertilizer used should have adequate time to release, dissipate, and cease to affect the plant 4-6 weeks prior to the first anticipated frost.

Temperature fluctuations are more difficult to mitigate. Where I live; just outside of Asheville, North Carolina, a week of 70 to 75 degree F weather in February followed by 10 to 15 degrees F is a yearly 'given'. Some plants are guaranteed to start growing after that first warm spell, only to be turned to mush a week later. The same plant would be fine in the much colder, upper mid-west or other places where it stays cold until spring arrives in earnest. If a host tree is susceptible to breaking dormancy with minimal chilling hours, then a week of warm weather and adequate moisture may bring it out of dormancy, and provide an opportunity for damage in the following weeks.

COURTESY: MIKE MAYSE PHOTOGRAPHY



The seed provenance is also a contributing factor to the complexity of this issue. For example, *Cornus florida*, our native dogwood, has a range from north central Florida to Ontario. However, seed collected from trees in Florida will not be reliably cold hardy in the northern parts of this range. If you are growing a host tree where it is not native, ask your truffle seedling supplier where the seed was collected. It will give you a much better idea of how cold hardy those trees may actually be. If the seed was collected from introduced trees and growing outside of its native range, then it is more difficult to determine a plant's probable tolerance of cold.

Plenty to think about, but proactive planning and action now can reduce problems around the corner as winter will surely arrive sooner or later.

ANNOUNCEMENTS

Truffle Brokerage

Call Good Truffle Company to sell your truffles. *Tuber melanosporum* only. For restaurants in Loudoun County, Virginia. Please call Diana Hudson @ 540

Truffle Dog Database

Do you have information to include in the Truffle Dog Database? Send your information to admin@trufflegrowers.com

Have an Announcement?

Send your announcement to admin@trufflegrowers.com

Executive Officers promote new International Science Advisory Committee (ISAC)

NATGA's Board is highly committed to building and increasing foundational knowledge regarding all aspects of truffle cultivation. To this end, we have created an International Science Advisory Committee (ISAC) to both increase the base of knowledge useful to our members while at the same time stewarding the continuity of research to enlighten our efforts and activities.

NATGA's ISAC will serve as a nucleus of seasoned truffle experts from North America and around the world. They will serve as a base of expertise that will be supplemented with other periodic experts, as needed, to respond to a wide range of issues of interest to those raising and selling truffles. We also are committed to the enhancement of truffle grower's knowledge base through rigorous research.

Beginning in 2020, we plan to host hour-long Webinars to allow an advisor to present issues that focus on well-established facts that are supported by evidential research. We anticipate that as this develops, North American Truffle Growers Association (NATGA) will become a force for refining research questions that deserve our support, including independent investigation.

Surveys will seek NATGA member advice on topics of interest to assure that topics presented will be timely to interests and needs. We also hope to create on our website, a listing of recent research findings and references from the literature that our panel recommends. We anticipate that this will appear sometime in the Spring or Summer of 2020.

(International Science Advisory Committee cont'd)

At the 2020 Annual Meeting, the panel of experts (who have agreed to serve for a three year term), will be announced and their credentials will be available on our website. In sum, this educational and research initiative is consistent with our charter as we continue to add value to being a member of NATGA.

Should you have questions or suggestions, please reach out to Don Detmer, VP NATGA at d.detmer@gmail.com.

EVENTS

2020

4-7 October, 2020

NATGA Annual Conference

(Santa Rosa, CA)

More information to follow

10-12 April, 2020

Truffle Plantation Establishment and Management (Valencia, Spain)

For more information, visit Mico-lab: <https://www.micolab.com/en/technical-training-courses-for-farmers-and-analysts/>

21-23 February, 2020

NATGA Annual Conference

(Charlotte, NC)

Johnson & Wales University

15-22 February, 2020

Lets Talk Truffles (Soria, Spain)

For more information, visit Sitka Services: <https://www.sitkaservicesllc.com>

CALENDAR