# Walnut Council

## Maryland Chapter Newsletter

**Fall/Winter 2021** **Volume 28, Issue 1**

## President's Message:

## Join Us for the Virtual Maryland Chapter Fall Meeting

*David Robbins*

As you may have already heard, we are in the middle of a global pandemic. COVID is changing things in ways we never could have imagined.

In late June and early July of this year, the majority of Marylanders were vaccinated and COVID case rates fell to an all-time low in Maryland since the beginning of the pandemic. People started feeling comfortable and relatively safe again, and businesses and government agencies started returning to normal (or near-normal) operations.

Then along came Delta.

The Delta variant of the 2019 Novel Coronavirus is far more virulent than the original strain, with increased transmission, hospitalization, and death rates. While vaccine "breakthrough" rates are still unclear, empirical evidence suggests that vaccinated individuals are also seeing increased rates of severe symptoms, hospitalization, and death; and may be acting as asymptomatic "super-spreaders" of the virus.

### *Inside This Edition...*



As a result, COVID case rates in Maryland are now over 20 times higher than they were in late June, and higher than they were at any time during the "first wave" of COVID, in the summer of 2020. While our society continues to return to normal, there are still significant risks from COVID, especially to the elderly and/or those with existing medical conditions or compromised immune systems.

The Walnut Council Maryland Chapter Board weighed these factors and decided that, for the continued safety of our membership, we will hold the annual fall meeting in a virtual format. So we are excited to announce the **2021 Maryland Chapter Virtual Fall Meeting**.

*President's Message (Continued on page 3)*

# Weed Control for Hardwood Trees - Killing Toxic Fescue

*Jim Ball*

*Walnut Council Missouri Chapter Member*

***Editor's Note:*** *This article was reprinted, with permission and minor edits, from the Walnut Council Missouri Chapter Newsletter, March 2020 edition.*

This article is meant to help remind the reader of the need to control weeds, especially tall fescue, if you want to maximize the growth of your hardwood trees. I mention a couple of ideas about how to accomplish this.

At the 2019 Missouri Chapter fall meeting, Jerry VanSambeek and I tag-teamed a presentation entitled "Killing Toxic Fescue". Jerry told us about all the research which illustrates that fescue in combination with walnut trees (and probably all hardwood trees) is a sub-optimal idea. I gave a presentation about how to go about killing the fescue.

The bottom line was - If you want the best possible growth for your hardwood trees, control the weeds, and especially fescue. The graph and picture on pages 4 and 6 illustrate this point. These figures are from a research project carried out by John Slusher, Extension Forester at the Southwest Research Center, many years ago.

We emphasized the need to control fescue because of its toxic nature and its vigorous appetite for nutrients, but other sod forming grasses such as

*Killing Toxic Fescue (Continued on page 4)*

Photo showing the effectiveness of an early spring application of Oust™ in controlling tall fescue around hardwood seedlings.

*President's Message (Continued from page 1)*

Please join us on Wednesday, November 3rd, from 7:00-8:00 p.m. for our Virtual Fall Meeting. Our guest speaker will be Heather Disque, from the Maryland Department of Agriculture Forest Pest Management, who will give a presentation on forest pests of concern in Maryland.

This will be a great opportunity to learn about the identification, impacts, and control of numerous insects and other pests that are impacting, or could impact, your forests and tree plantations. The presentation portion of the meeting will be approximately 45 minutes, with ample time at the end for questions and answers.

To join the meeting, just go to the following link, shortly ***before*** 7:00 on November 3rd:

**https://meet.google.com/auv-phxx-hma**

Registration is not required, and anyone with the link can join the meeting. So feel free to share this link with anyone who you think may be interested in attending.

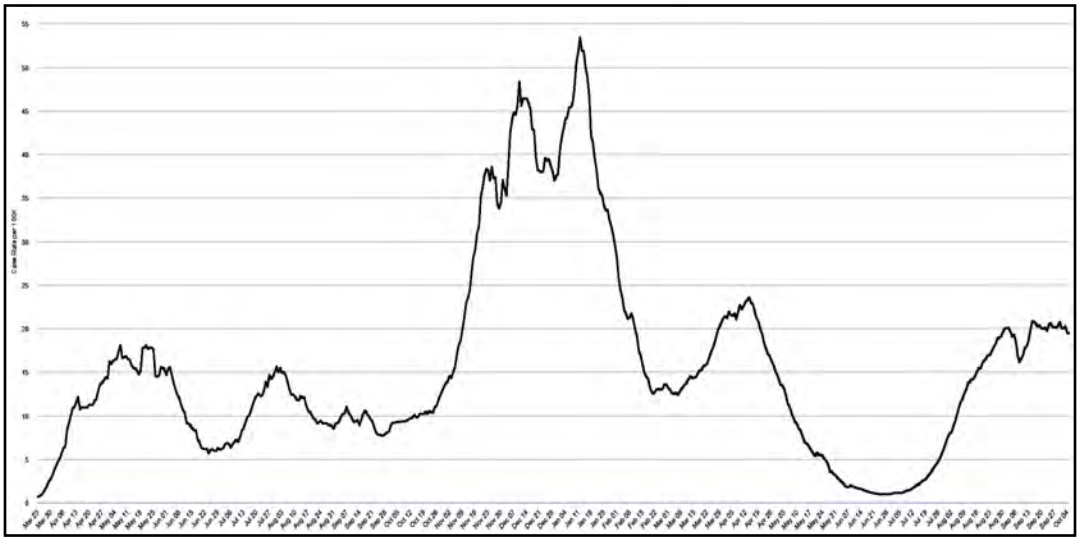
Our hope is to return to in-person meetings in the spring of 2022, but we will re-evaluate that as the time draws nearer. In the meantime, I look forward to seeing all of you at our first ever **Maryland Chapter Virtual Fall Meeting** on **November 3rd!**

# Maximizing the Competitive Ability of Underplanted Oak Seedlings

*Graham Frank, Ron Rathfon, and Dr. Mike Saunders*

Forests dominated by oak species are valued for their timber, aesthetic qualities, and provide the foundation for ecosystems that include healthy wildlife populations and a diverse array of plant species. Unfortunately, oak is likely to cede dominance to more shade tolerant trees in the future, without concerted management efforts to regenerate oak species. Regenerating oak forests hinges on adequate stocking of oak seedlings and saplings in the forest understory before final overstory removal. Moreover, it is critical that this "advance reproduction" is large enough to be competitive with the surrounding vegetation. Supplementing naturally occurring oak seedlings with underplanted seedlings can help to ensure sufficient advance reproduction and can allow more flexibility in the timing of management, rather than working around yearly fluctuations in acorn production.

*Oak Competitiveness (Continued on page 5)*



The COVID case rate per 100k people in Maryland, from March 2020 through early October 2021.

*Killing Toxic Fescue (Continued from page 2)*

Brome, and large broadleaf weeds, can also be a problem that should be controlled. Luckily, we have herbicides which are considered safe to use that will control these weeds if used at the right time of year, assuming they are properly applied.

I approach killing fescue from the standpoint of two separate categories where the problems and solutions are different. One situation is with very small trees and the other is where the trees are large enough that glyphosate and some other herbicides can be applied without getting onto green bark and/or foliage.

In both cases, be sure to apply herbicides at least out to the drip line of the trees regardless of their size.

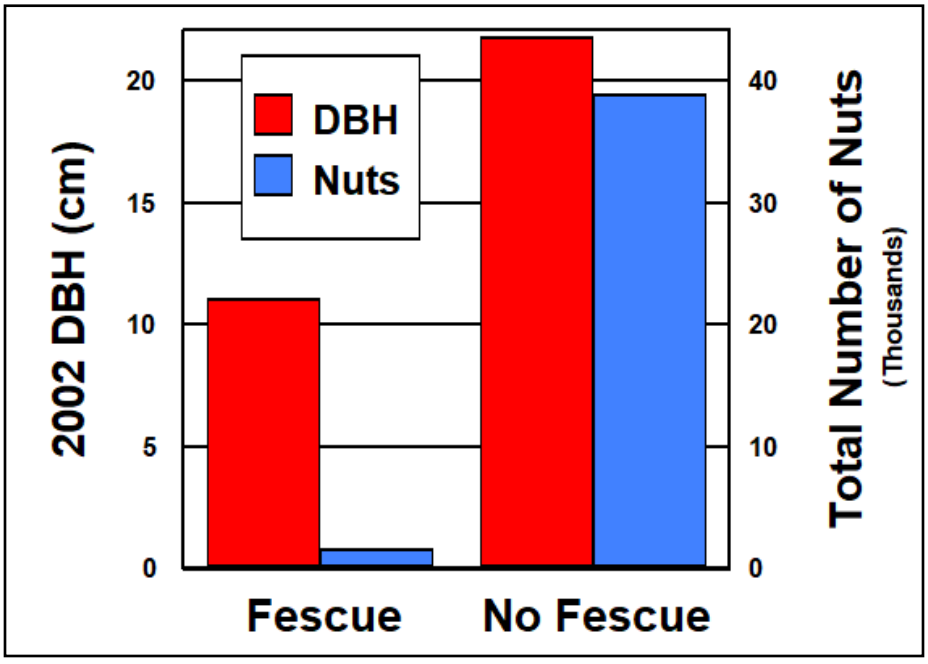
**SMALL TREES**

Depending on where your trees are, bud break will occur at different times in the spring. In some northern areas, bud break will occur later in the spring than warmer areas to the south or at lower elevations. The first stage to watch for is bud swell, when new tender tissue might be exposed. If this has happened, it is too late to apply any "contact killing" herbicide that might hit those buds. To be on the safe side, consider it is too late to apply glyphosate in that situation. In that case there are pre-emergent herbicides that can be used later, even with full foliage. A couple of grass herbicides can be used, but both of those are beyond the scope of this article.

If bud swell has not happened yet, it is probable that cool season grasses are starting to grow. This is an excellent time to apply herbicides with a contact killing chemical (like glyphosate) or a combination contact and pre-emergent herbicide like Oust™.

The photo on page 2 shows an application I did last year prior to bud break, and shows the effectiveness of Oust™. According to how vigorous the weed competition might be later on, with species like giant ragweed or mares tail that can overgrow and shade the little trees, you might want to consider a second spraying of a pre-emergent herbicide about 30-45 days following bud swell. Most pre-emergents continue to be effective for only about 60 days, so plan accordingly. I failed to do this last year on a couple of small CSP (USDA Conservation Stewardship Program) plots, and it was a very prolific year for weeds. By midsummer those weeds overshadowed what looked like a perfect stand of trees and, by fall, resulted in probably the worst survival rate I have experienced in my 29 years of tree planting.

*Killing Toxic Fescue (Continued on page 6)*




Graph comparing the diameter (DBH) and nut production of trees grown with and without tall fescue competition, during a study conducted by John Slusher at the Southwest Research Center.

*Oak Competitiveness (Continued from page 3)*

Recent results are now available from a demonstration study examining combinations of commonly recommended management prescriptions to maximize the competitive ability of underplanted northern red oak (Quercus rubra) seedlings. Specifically, the study examined the effects of deer fencing and controlled release fertilizer for seedlings planted beneath a light crown thinning, midstory removal, or both silvicultural treatments in combination. The light crown thinning treatment was similar to many timber sales that occur on privately owned forest land in the Midwest, and the results of this study will be especially applicable to landowners and managers using underplantings to promote oak regeneration after a timber sale.

Purdue Extension Forester Ron Rathfon shows the height of a planted northern red oak seedling (pink flag), dwarfed by the adjacent tulip poplar from the same cohort (left). Fast growing species such as tulip poplar can out compete slower growing oaks in environments with high light levels.

Overall, the highest rates of height and diameter growth, survival, and seedling competitiveness (based on seedling height relative to surrounding vegetation) occurred in plantings beneath midstory removal treatments—either alone or in combination with light thinning—and protected with fencing to exclude deer. Fertilization had few detectable effects, but did increase rates of seedling competitiveness relative to unfertilized seedlings if deer fencing was not installed. While the combination of deer fencing and midstory removal together was most effective, the installation of fencing was more important than midstory removal for promoting seedling survival and competitiveness.

This study was installed by Ron Rathfon, Purdue University Extension Forester, in collaboration with The Nature Conservancy's Forest Bank program. The Forest Bank is a program available in priority conservation areas in Indiana and provides an economic return to private forest landowners while protecting forest habitat.

## Got E-mail?

Occasionally we have timely information to share with you. If you have an e-mail account, but have not received any e-mails from us this year, that means we don't have your current address. If you would like to be included in the e-mail news list, please send an e-mail to Dave Robbins at: dave.robbins@maryland.gov.

We promise not to clutter your inbox!


Photo showing the impact of tall fescue grass on the growth and development of hardwood trees, during a study conducted by John Slusher at the Southwest Research Center.

*Killing Toxic Fescue (Continued from page 4)*

When spraying with a hand-held sprayer, apply the herbicides in a circle out to the dripline using this guideline: If the DBH (diameter at breast height) is 4 inches, the crown width in a healthy situation should be 4" x 2 + 5 = 13 feet. Landowners often spray circles that are simply too small to have an impact.

**LARGER TREES**

By this, I mean those trees having enough bare brown bark where herbicide can be sprayed and not in contact with foliage.

We have more spray options with larger trees. You can apply pre-emergent herbicides any time that common sense and the labels tell you is appropriate. You can apply contact herbicide anytime you like, but it is better to spray after the grasses have started to grow. Just do not spray so late you could kill the late-budding broad leaf species that are not especially harmful to trees. Those species of weeds help prevent erosion and they have wildlife benefits. For me there seems to be enough seed in the seed bank of rag weed and foxtail millet which quickly repopulate the more desirable weeds.

**STUDY THE LABELS!**

All herbicides under consideration here have labels on the container. Labels include pertinent information on safety, which weeds are controlled, the recommended dosage, and the issues relating to protecting your trees.

The dosage will usually be expressed in ounces per acre, which is used for electric or PTO driven sprayers with booms. If you are going to use this

*Killing Toxic Fescue (Continued on page 7)*

*Killing Toxic Fescue (Continued from page 6)*

volume formula, it is necessary to calibrate your sprayer, which is not difficult, and the instructions are readily available. However, if you are using a hand-held sprayer powered by an electric pump, like on an ATV or even a manual sprayer like a back-pack or pump-up sprayer, follow label rates "Hand-held % Solution". Labels often provide different percent solutions for different targeted species. You may also find the percent solutions for different weed heights. Be sure to read the whole label not just the tables. If the grasses are small you may be able to cut back on the amount of herbicides illustrated in the following example.

A Tomahawk™ brand label has 53.8% active ingredient and, for instance, calls for a 1.5% solution (in water) for fescue. Simply multiply the volume of water in your spray container, say 15 gallons, and convert it to ounces (=1920 oz.). Multiply 1920 X .015 to get the number of ounces of Tomahawk™ (= 28.8 ounces) to add to the sprayer tank. The Tomahawk™ label also gives examples to help you determine how much of their product to use.

In all circumstances you should study the label and follow label warnings and recommendations. I also suggest adding a small amount of surfactant to improve efficiency, but you should check with your chemical supplier for their recommended dosage. Some labels include a suggested percent of surfactant to include, but many labels do not mention surfactants.

**TIME IS OF THE ESSENCE!**

Spring will soon be here. Early spring is the best time for using herbicides to help maximize the growth of your hardwood trees by killing toxic tall fescue.

# Upcoming Events:

**Walnut Council Maryland Chapter Virtual Fall Meeting**

Date: November 3, 2021 - 7:00 p.m.
Location: Virtual Meeting
Join by Computer: meet.google.com/auv-phxx-hma

**Sounthern Maryland Forestry Workshop**

Date: October 13, 2021 - 6:30-9:00 p.m.
Location: Charles Soil Conservation District
4200 Gardiner Road, Waldorf, MD 20601
Registration: https://www.eventbrite.com/e/southern-maryland-forestry-workshop-tickets-177119638607
Information: aleslie@umd.edu

**Food Preservation Fall 2021 Workshops**

Dates: October 19, 2021 - 5:30-8:30 p.m.
October 26, 2021 - 5:30-8:30 p.m.
October 28, 2021 - 5:30-8:30 p.m.
November 16, 2021 - 5:30-8:30 p.m.
Location: Cecil County Administration Building
200 Chesapeake Blvd, Elkton, MD 21921
Registration: https://docs.google.com/forms/d/e/1FAIpQLSdaGgPi6sNes1SRonSUITEF9f7xLla8GZ1EsGT5HWKJ8yvgFA/viewform
Information: bjackey@umd.edu

**How to Grow Your Own Mushrooms**

Date: November 4, 2021 - 1:00-3:00 p.m.
Location: Whitelock Community Farm
930 Whitelock Street, Baltimore, MD 21217
Registration: https://www.eventbrite.com/e/how-to-grow-your-own-mushrooms-tickets-185102335067
Information: nglittle@umd.edu

**National Walnut Council Annual Meeting**

Date: July 24-27, 2022
Location: Southern Illinois University
Carbondale, Illinois
Registration: https://walnutcouncil.org/events/

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