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Master Gardener | Johnston County

The Gardener's Dirt Newsletter

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FEATURE ARTICLE

"FIGHTING FAKE NEWS"

BY: Rick Brandenburg, Ph.D., and Terri Billeisen, Ph.D., of Entomology and Plant Pathology, North Carolina State University

It's getting increasingly difficult these days to identify legitimate news stories when so much of the information we receive is fake news, alternative facts, science denial and on and on. Although motivation for these stories is often political, several other factors can also play a role. The internet and social-media sites allow users to have instantaneous access to everything you did and did not want to know about a topic. The reality that this information is just a keystroke away, and may be potentially incorrect, can have serious repercussions.

So, why write about this topic pertaining to the lawn and landscape industry? We have one main reason: it simply affects our industry. The prevalence of "bad" news stories in our world today can have a tremendous impact, and those stories often influence policy-making decisions in our field. If you haven't been paying attention the past few years, the number of "news" articles and editorials related to bee kills, climate change, glyphosate use, ground water contamination and other similar topics all are areas of concern in lawn and landscape management. Recently, two separate events illustrated how much incorrect information the public consumes on a daily basis.

One, I posted a response on the "Nextdoor" neighborhood social network addressing concerns over glyphosate use in a home lawn. Several people indicated it was a dangerous approach that threatened the health of our children, contaminated groundwater and was killing "all the bees." My response included actual facts about glyphosate, both as a product and its use, and it was immediately blasted by dozens of

people who attacked me both on a personal and professional level. It was vicious!

The second incident occurred a few months ago when, in the period of one week, I had more than a dozen requests from lawn care operators for information about the safety of glyphosate. Their clientele, were concerned about the use of glyphosate in their home lawns. Most of their concerns came from information they had obtained from seemingly "reputable" sites on social media.

So, to start, I want to make two points very clear. First, you can find evidence within two minutes on the internet to support your argument, regardless of the absurdity of the perspective you take. Don't believe me? Try it. There is more false information on the internet than one can imagine, and at times, the falsehoods seem to outnumber the truth. The second point is simply this: you cannot win an argument on social media. Don't even try.

If there is one thing I want you to take away from this article, it's that there is a lot of negative information floating around on social media that hurts our lawn and landscaping industry, and to properly respond to it and minimize the impact, we need to be professional. It is important that we are courteous and knowledgeable in our response and to always find good, reliable sources of information to ensure that we know as much about the products we use as possible.

This is often going to be difficult. All of us, somewhere deep down inside, have the desire to be "right," or "correct," or viewed as an authority on a subject. Sometimes this can drive us to a point where we seek information that supports our side of the argument, regardless of its source (or validity!). It happens to us all, and the internet makes it very easy for us to find information that supports our argument. It's called "confirmation bias;" we actively seek information that makes us the expert. Now, there is nothing truly wrong with wanting to be an expert, but it is very important that we obtain our information from sources that are accurate and factual, not just supportive.

In the lawn and landscaping industry, our motives and ethics are often called into question by social media blogs and sites regarding pesticide, fertilizer, and water use. It is imperative that we respond with information that is accurate and science-based because it is our responsibility as professionals. We need to take the high road and communicate good science to the concerned citizens, even if it disagrees with their viewpoint.

The public is being inundated with information that is not always accurate, and in many cases, it is misleading and used to market particular products. There have been numerous ads for food products that indicate non-GMO, when in fact there are no GMO varieties even in commercial use for that particular food. It's not lying, but it's certainly misleading. So, what are some key points to focus on as we move forward?

- Get your facts from reputable sources.
- Continue to educate yourself; make sure you know what you're talking about.
- Identify issues with which the general public is concerned about, and learn as much as you can on that subject.
- Be professional.

It's not an easy task ahead of us, but I think we need to be more serious and active in addressing societal concern than we have been in the past. Social media has changed a lot of things (including how people spend their free time), and we can't afford to have an attitude that negative publicity and bad science are simply going to die a slow death. Scientist are starting to take a more aggressive role in providing information to end users that tell the real story. Our lawn and landscape industry needs them to do the same.

ABOUT THE AUTHORS:

Rick Brandenburg (Facebook: '**Turf, Bugs, and Rock N' Roll**') is a William Neal Reynolds Distinguished Professor of Entomology at North Carolina State University and has addressed insect management along with social and environmental issues for more

than 30 years. Terri Billeisen completed her post-doctoral work in turf grass entomology in December 2016 and is now an Extension Associate at North Carolina State University.

ADDITIONAL TOPIC RELATED LINKS:
Information about glyphosate - Updated Toxicology information -- "not likely to be carcinogenic to humans"

Are GMOs Safe?/What Is Cooperative Extension and NCSU's Position on the Use of GMO's in Regards to Safety?

What Is a GMO? (Video Part 1)


Photo Courtesy of NCSU

"The Differences between Heirloom, Hybrids & GMO's"

Article by Tiffany Whichard

In the past, I have been asked a lot of questions about GMOs. The main question posed is often, "What is a GMO and is that the same as a hybrid?" The short answer is no, it's not the same. I'm going to provide you with some basic information and if you have any questions, need clarification, or want to talk with someone; please feel free to call the N.C. Cooperative Extension Johnston County at 919-989-5380 and speak with our Horticultural Agent (Marshall Warren). However, I encourage you to do your own research on heirloom, hybrids, and GMOs.

*An heirloom or open-pollinated seed is one that has been handed down through generations. It is pollinated without human intervention, generally via wind or insects and will produce the exact same plant year after year (if seeds are harvested from the fruit or vegetable that results). Heirlooms are often prized for their taste--particularly with tomatoes--but sometimes they can be less predictable in regard to appearance, uniformity or yield. They also may be more susceptible to disease. Cherokee Purple tomatoes are an example of a very popular heirloom.

* A hybrid seed means that two parent plants have been crossed in a controlled environment by a plant-breeder. This is usually done to get a desired set of traits such as a bigger size, better disease resistance or greater productivity. The bad thing about hybrids are that will not be 'true' to the parent plant, meaning you can not harvest seed from the fruit or vegetable to save for sowing a future crop. Sun Gold Cherry tomatoes are an example of a common hybrid.

* A GMO is a genetically modified organism produced first in a

lab. This means that the DNA has been altered or genetically engineered in some way. This process may include splicing and inserting DNA, but that isn't always the case. GMO is used for selected commercial crops like corn and soybean, and--from my understanding--can help to combats pest, drought, and even herbicides. GMO seeds are NEVER available to home growers (regardless of what the regular seed catalogs may have you believe). There have been voiced concerns about long-term safety with the GMO process and resulting products. Know that the crops themselves are regulated by three different agencies and testing continues to be done.

Quick Tip

By A. Barra - Own work_ CC BY-SA 3.0_ ht 1

Nandina Berries - Buyer Beware!

Nandina domestica, common name(s) Heavenly Bamboo, Nandina, and Scared bamboo, is beautiful with its white blossoms and red or cream-colored berries; it's hard to resist adding to the southern woody landscape because of its remarkable adaptability from sun to shade and moist to dry soil conditions. Once established though, this shrub is very hard to eradicate. If only it could come with a big yellow caution sign that birds and animals could recognize. "Leaves and berries from the Nandina are toxic to livestock and other domestic animals"; and "...the berries contain cyanide... thus..." when consumed in quantity can be toxic to birds." So, if considering this plant, do your research to ensure safety to the wildlife around.

CLICK HERE for more information on Nandina domestica

Fake Natives:
Invasive Exotic Plants of the Southeast

By Olaf Gradin

Unchecked and unmonitored plants continue to invade the southern forests. These invasive plants grow under and beside forest canopies, occupy small forest openings, and hinder forest use and management activities while degrading diversity and wildlife habitats. Referred to as nonnative plants, they have several other names such as exotic, non-indigenous, alien, or noxious weeds. They vary by type; trees, shrubs,

vines, grasses, ferns, and forbs. Nonnative plants have been accidentally introduced here, but most were brought here as ornamentals or for livestock forage. Without their natural predators of insects and diseases these plants invade the native habitat and crowd out native plants. This causes a reduction in food sources for birds and other wildlife. When possible, these plants should be removed and replaced with native plants.

For a list of non-native invasive plants click on the learn more link below.

Learn more»

Credit: Rebecca Wynn/USFWS

The Great Dismal Swamp

National Wildlife Refuge
Silvia Caracciolo
Extension Master Gardener Volunteer

The Great Dismal Swamp is one of the few remaining American Wildernesses. This vast habitat includes more than one million acres of southeastern Virginia and northeastern North Carolina. Riding on a small tour bus, you enter the Swamp leaving the farmlands that sit adjacent to the foreboding forests. A biologist on board gives the historical perspective and notes natural disasters and man-made events of the Refuge.

In 1776, The Dismal Swamp Company was formed to grow rice for shipment. The Company changed names and owners many times. However, the Swamp endured canal building, train track exporting, floods, fires, and harvesting millions of juniper, cedar and white oak to make shingles for housing. In "The Great Dismal, A Carolina's Swam Memoir" by Gland Simpson, he states some of these trees were 180 years old!

In 2008, The South One Fire lasted 121 days and burned 4,800 acres. In 2011, the Lateral West Fire burned 6,300 acres and smoldered for nearly four months. Wildfires are hard to control because the Swamp's peat soils can burn. In the early 20th century, a fire raged for three years.

Lake Drummond is the largest natural lake in Virginia. Its 3,100 acres provides home to several species of fish, resting places for thousands of migratory birds, and is still in use today... making it the oldest continually-operating canal in America. The peat formed the organic soil, which make the waters appear murky. You can see an eagle's nest across the lake supported in a high tree.

Plants in the swamp include 43 tree species, 26 shrubs, 20 vines, 18 ferns, 57 herbaceous plants, and nine grasses, sedges and rushes. On boardwalks into the forest, the botanist pointed out the edible species and we got to sample a little. The animals which inhabit the swamp are mammals, fish, butterflies, skippers, snakes, turtles, lizards, toads and frogs, salamanders to name a few. We saw a few deer munching on the grasses, turtles relaxing on logs before scampering into the dark murky water, ducks fly away, and bear markings on a tree along the auto trail.

Covered in flying insects, as you leave the bus, you can only

imagine living off the land. The Great Dismal Swamp played a role on the Underground Railroad for hiding places for permanent and multi -generational communities of escaped slaves known as maroons.
Bus tours, kayak excursions, nature walks run throughout the year. I would encourage anyone to visit this mass expanse of nature at its best. Most tours depart from the Suffolk Visitor Center. Reservations are required.

"The Great Dismal Swamp, A Carolinian's Swamp Memoir", by Bland Simpson **CLICK HERE** for more information on the Great Dismal Swamp.

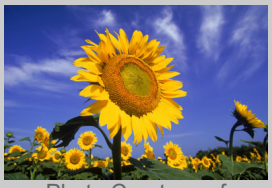
Photo Courtesy of Pixabay

August Gardening Tasks

GENERAL REMINDERS

- **Control Pecan Weevils this month.**
- **Growing Pecans in North Carolina**
- **Save Your Pecans Now From Weevil Damage**
- **Collect soil samples for testing so you'll know how much fertilizer and lime to add this fall. Test your lawn, flowerbeds and vegetable garden using the free kits from Cooperative Extension. Testing should be done once every 3 years.**
- **Watering deeply but infrequently encourages a deep and extensive root system for better drought tolerance.**
- **Control fungal diseases by watering early in the morning, allowing the sun to dry water droplets from the foliage.**
- **Mulch trees and shrubs with a 2-3" layer of mulch to keep roots cool, conserve moisture, and control competing weeds and grasses. Avoid mulching more than 4" deep, and leave 3-4" between mulch and the trunk of the tree/shrub.**
- **Avoid pruning shrubs and trees during late summer. Pruning stimulates new growth which will not have sufficient time to harden off before cold weather.**
- **Avoid nitrogen fertilizers during late summer. New growth at this time of year is vulnerable to frost damage in the fall. If your soil test shows you need to add phosphorus or potassium to your soil, add them now. These nutrients will help your plants better withstand the winter.**
- **Cut back leggy summer flowers, then fertilize them.**

They'll regrow within a few weeks and look great till frost.

- Plan for Fall Bulbs. Autumn-blooming crocus and colchicum add color to your fall garden. Since these bulbs are not always available locally, order them now from a mail-order source. They need to be planted in September.
- Prepare garden spaces for fall garden veggies. Greens, cabbage, carrots, parsnips, beets, radishes and lettuces can be started by mid August.
- New tomato plants and fall cucumbers need to planted quickly.

LAWN CARE

- Check out the Lawn Maintenance Calendar for your grass and learn how best to care for it.
- August is the best time to prepare for planting cool season grasses. The optimal planting time is the second half of September.
- Prepare to treat for winter weed control using pre-emergents.

Photo Courtesy of Pixabay

Cool Connections

Helpful Links from N.C. Cooperative Extension Johnston County

Read more»

Photo Courtesy of NCEMGVA

Upcoming Event

- **Food Preservation Series Class- Fermentation**

Located at N.C. Cooperative Extension Johnston County
August 11, 2018
10 am - 1 pm

Click here for more information on this class

- **Future Event - September 14, 2019**

Birds, Bees, Butterflies and Growing Native Gardens Symposium

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NC State University and N.C. A&T State University work in tandem, along with federal, state and local governments, to form a strategic partnership called N.C. Cooperative Extension.

For accommodations for persons with disabilities, contact Bryant Spivey at (919) 989-5380, no later than five business days before the event.

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