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Lessons Learned from Trees & Grass

June 2023

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Have you prepared your soil for the onslaught of rain?

Soggy areas on your lawn will likely cause grass to struggle to grow properly in the areas covered in standing water — which then leaves these areas vulnerable to moss growth. Puddles that don't dry up guickly can become breeding grounds for mosquitoes, making your yard unpleasant to spend time in. Lastly, excess water on your lawn can eventually affect your home's foundation.

Typically, standing water is caused by either low spots in the yard or poorly draining soils. Leaving standing water in your yard can facilitate mold growth, lead to foundation issues, create a breeding ground for mosquitoes, cause lawn and landscaping problems such as grass and plant death.

To encourage healthier conditions, improving landscape bed drainage is critical. Though it's not always an easy fix, there are things that you can do to make a difference.

When It's a Soil Issue: In some cases, it could be poor soil health. An essential practice for improving soil drainage is incorporating organic matter like compost. Organic matter improves soil structure by increasing soil aggregation, allowing for more and varied pore sizes.

When It's a Low Spot: Water will always follow the path of least resistance, so if you have a low area in the bed, water will naturally pool there. If it's one or two minor low spots, they can be filled with soil to match the grade around them. However, re-grading could be necessary if there's a significant slope or dramatic low spots.

Addressing these issues before installing any plant material is always a good idea. You want to ensure that landscape beds are appropriately graded and that there are no significant drainage concerns before planting anything. Ideally, you want to improve soil health and get rid of low spots to have the best performing plant beds.



big impact on the health of your lawn and landscape.

Common issues from too much rain

Soil Erosion & Standing Water: Oversaturated soil and a sloped property are not a great combination. Without proper drainage, too much rainwater could cause your soil to erode, as well, cause other issues like loss of nutrients and clogged waterways. In addition to soil erosion, drainage issues can also cause standing water. Standing water is an invitation for mosquitoes to gather and lay their eggs. It can also cause lawn issues like mold.

Dying Trees and Grass: When water doesn't drain properly, it can pool on the surface of the ground or oversaturate the soil. This saturation can damage roots and make it difficult for grass to get the oxygen it needs to thrive. This can also cause root rot or wood rot, damaging the trees or grass and making it more susceptible to disease.

Insect Infestations: Another sign of how poor drainage damages your lawn is an insect infestation. The larvae of many insects, such as mosquitoes, cockroaches, and termites, require stagnant water to develop. If your lawn is constantly wet due to poor drainage, it creates the perfect breeding ground for these pests.

The Importance of



Integrated Pest Management regulates pests by using a variety of control measures, including mechanical, cultural, biological, and chemical. Pest prevention is fundamental to IPM. By initially preventing the problem, control mechanisms may not be necessary later on. Management rather than eradication of pests is the goal.

IPM is about making good choices versus bad ones when it comes to managing your pests. A good choice helps you out with your pest problem and takes into account health and the environment. An IPM plan begins with a careful evaluation of each pest infestation. Only then can one decide on the appropriate tactics to suppress pest activities. The pest's life cycle, possible damage, natural enemies, and weather effects, among other factors, are considered before a control plan is implemented.

While the best defense against any pest is a healthy, well-maintained lawn, it's imperative to complement a healthy landscape with an IPM program. Keeping plants healthy and preventing plant stress helps plants to withstand better and repair the damage caused by an insect or mite pest.

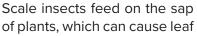
Practicing IPM begins by implementing a sound pest management program in your landscape. By using preventive techniques, certain pests may never become a problem.



Sap Sucking Scale

Scale insects are a group of small, sap-sucking pests that can cause damage to a wide variety of plants. They are called "scale" because of the hard, protective

shell that covers their bodies, which makes them difficult to control. Scale insects come in various sizes and shapes.





yellowing, wilting, and even plant death if left untreated. They also produce a sticky honeydew substance, which can lead to the growth of sooty mold on the plant's leaves and branches. Additionally, heavy infestations of scale insects can weaken the plant, making it more susceptible to disease and other pests.

Scale insects are difficult to control once they are established on a plant, and they can spread rapidly if left untreated. It's important to take action as soon as you notice the signs of an infestation to prevent further damage to your plants.



Managing the Sod Webworm

Sod Webworms do not kill St. Augustine grass but they ruin its appearance. They like shaded areas and hot humid weather, so are very active during the summer. They come out at night from the soil and eat the blades of grass leaving chew marks. It is very noticeable and can be seen from a distance.

One of the first signs of sod webworms is moths that swarm together during the day. The moth is what lay the eggs in the soil that turn into sod webworms. Once eggs hatch and worms grow they begin chewing.



The Webbed Destruction of Two-Spotted Spider Mites

Spider mites are common pests in the urban landscape and can inflict serious damage to trees, shrubs, and flowers. It is considered a "warm season" mite that thrives under hot, dry summer conditions and is the most common and destructive mite on deciduous ornamentals. It has an extremely wide host range and will feed on many varieties of trees, shrubs, flowers, and even weeds. Mites are tiny, about the size of the period at the end of this sentence.

Strands of webbing are spun by the mites on the undersides of infested leaves and between branches. They overwinter as adult females in the soil or under the bark of host plants and become active during the spring and may feed and reproduce throughout the summer and into fall, provided conditions remain favorable for plant growth.

The Buzz about Bees



NATIONAL POLLINATOR WEEK
JUNE 19-23

Florida is home to more than 300 species of bees. They vary in size and range in color from brown, black, or red to metallic green or blue. In Florida, bees are active most of the year. Most nest in well-drained, but others nest in trees or other sources of wood or plants with hollow stems. They may nest in spring and again in summer months. Some bees are "specialists," relying on a single wildflower species or family for food. Most, however, are "generalists" who gather pollen and nectar from various flowers.

Most native bees are solitary and not usually aggressive, as they do not defend a hive like the honeybee or other colonial bees. However, solitary bees may sting if surprised or threatened. Insects pollinate more than 80 percent of flowering plants and food crops. While gathering pollen and nectar for food, bees carry pollen from one flower to another, ensuring plant reproduction. This pollination process has evolved over millions of years.

Common name	Light	Color of bloom	Bloom	Soil moisture	Growth habit	Common name	Light	Color of bloom	Bloom season	Soil moisture	Growth habit
Milkweed ¹	*45	Various	**	00	1-3 ft	Blazing star	*4	•		00	24-30 in
Wild indigo	*45	0	36	00	2-3 ft	Snow squarestem	*65	0		000	3-4 ft
Beggarticks	*65	00	****	000	1-4 ft	Dotted horsemint ⁹	*45	000		00	3-4 ft
Chaffhead ²	*65	•	E	44	24-30 in	Beardtongue ¹⁰	*65	0	****	00	18-24 in
Partridge pea ³	*65		4	00	3 ft	Frogfruit	*45	0		00	4 in
Thistle ⁴	*	0	****	00	2-3 ft	Black-eyed susan ¹¹	*65	•	Para Para	△	15-18 in
False rosemary	*	0	38	00	2-3 ft	Rosinweed	*45	•	Day.	00	3-4 ft
Lanceleaf tickseed	*	•	**	00	1-3 ft	Blue-eyed grass ¹²	*45	•	*	00	6 in
Purple coneflower	* 65	•	Paris	4	18 in	Goldenrod (cover image)	*45	•		00	3-4 ft
Rattlesnakemaster ⁵	*45	0	**	4	1-3 ft	Stokes' aster ¹³	*45	•	**	۵	18 in
Blanketflower ⁶	*		****	00	15 in	Aster14	*45		E	00	2-4 ft
Wild geranium	*45		* *	00	2-3 ft	Spiderwort ¹⁵	*45		*	00	15-24 in
Sneezeweed ⁷	*45		***	00	1-3 ft	Blue curls ¹⁶	*	•	4	٥	24-30 in
Sunflower	*45			44	2-6 ft	Frostweed ¹⁷	* CDC3	0		000	2-5 ft
Dune sunflower ⁸	*		5.3	0	10-15 in	Ironweed18	*45	•		000	4-6 ft



A Bee, or Not a Bee?

Some insects that you will see visiting flowers are bee mimics. While they are not bees, they may resemble them in appearance.

Common bee mimics are flies and wasps. A fly has only 2 wings, while a bee has 4. Flies have sucking mouth parts, not the jaws of a bee, and their antennae are not long and slender like a bee, but short and stubby or feathery. Some flies are easy to spot because their eyes meet in the center at the top of their head.

A wasp has 4 wings, chewing mouthparts, a sting, and long antennae like a bee. Wasps are smooth and almost hairless, while bees are generally covered with hair on their bodies and legs. Wasps have slender waists and they will never have pollen-carrying hairs. Certain wasps make paper nests that hang from a tree or building, bees do not.

A final clue: If an insect is eating another insect, it may be a fly or wasp. Bees are vegetarians and only eat pollen and nectar from flowers!



Amswers: 1) Wasp nest 2) Fly eating lady beetle 3) Fly 4) Bee 5) Wasp 6) Leaf cutting bee



The Butterfly Garden

Landscaping with Florida's native wildflowers and plants provides refuge for birds, bees, and butterflies while creating "habitat highways" through urban settings.

Florida butterflies use a variety of wildflowers, shrubs, and trees as host plants. And they need an abundance of nectar for food throughout their life span. Planting Florida native wildflowers will attract butterflies and add seasonal beauty to your garden!

Florida's butterfly population is endangered due to the loss of native habitat and host plants that are imperative to complete the metamorphosis from egg to larvae to adult butterfly.

We can all aid conservation efforts by planting wildflowers that provide nectar, pollen, and larval food for our native butterflies and moths.

Common name	Light	Bloom	Bloom season	Soil moisture	Growth habit	Value to butterflies
Pipevine	8000	•	111	0	Vine	Host
Milkweed¹	*65	Varies	36	00	1-3 ft	Host, nectar
Water hyssop ²	*65	0	* * *	•	6 in	Host
Wild white indigo	*65	0	*	00	2-3 ft	Host
Partridge pea ³	*65			00	3 ft	Host
Blue mistflower	*	•	8.3 ×	4	24-30 in	Nectar
Tickseed*	*65		***	00	12-18 in	Nectar
Twinflower	00	•	*	00	6 in	Host
Purple coneflower	*65	•	510	4	18 in	Nectar
Rattlesnakemaster ^s	*45	0		4	15-18 in	Nectar
Blanketflower ⁶	*		* * *	00	15 in	Nectar
Mock vervain ⁷	*65		* * * *	00	8-24 in	Host, nectar
Sunflower	*65			00	3-6 ft	Nectar
Dune sunflower	*	•	5.0	0	10-15 in	Nectar
Buttonsage*	*	0	200	0	4-5 ft	Nectar
Blazing star*	*65	•	***	00	24-30 in	Nectar
Powderpuff	*65	0	****	00	3 in	Host
Dotted horsemint	*65	000		00	3-4 ft	Nectar
Purple passionvine ¹⁰	*65	•		00	Vine	Host
Corkystem passionvine	00		* * * *	4	Vine	Host
Frogfruit ¹¹	*65	00		4	4 in	Host
Black-eyed Susan isoverimage)	* 65	•	5.0	4	15-18 in	Nectar
Wild petunia	*65	•	***	00	6-18 in	Host
Skullcap ¹²	*65	••	* * * *	00	12-15 in	Nectar
Sensitive plant ¹³	*65		* * *	00	2-8 ft	Host
Rosinweed ¹⁴	*5	•	5.3	00	3-4 ft	Nectar
Goldenrod ¹⁵	*0		13 K	00	2-4 ft	Nectar
Porterweed	*		5.0	00	2 ft	Host
Aster16	*65	000		000	Varies	Host, nectar
Ironweed ¹⁷	* 63	•		00	4-6 ft	Nectar
Violet	ca	•	**	4	4 in	Host
American wisteria ¹⁸	00	•	38	Δ	Vine	Host

Florida Butterflies









Longwing

Red-spotted Purple

Hackberry Emperor

Common Buckeye



Great Purple Hairstreak

Gray Hairstreak

Red-banded Hairstreak

Sleepy Orange

Cloudless Sulphur



Checkered

White

Palamedes

Swallowtail

Swallowtail

Spicebush



Pipevine



Swallowtail



Zebra Swallowtail



Silver-spotted Skipper

Fiery

Skipper

Horace's Duskywing

How to Establish a Florida Native Butterfly Garden

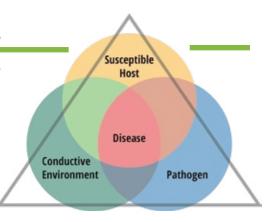
Choose a site that receives full sun to partial shade. Plant 3 or more of each flower species for visual impact. Plant flowers of varying heights and flower size. Water to establish.

Do not use fertilizer and never spray pesticides.

Come What June & the Fungi Return

Since our rainy season is just starting, our landscapes become a melting pot of lawn disease and pest control issues. This means being watchful of potential fungus and bacterial infections in the landscape so we wanted to ensure our clients know the basics of fungi identification in lawns and when to take action.

First, you should know about the disease triangle – the three things needed for disease development: a vulnerable plant, a strong pathogen, and a favorable environment. Controlling diseases hinges on the ability to eliminate at least one part of the disease triangle.









Although fungi have a major place in the natural order, they recycle dead plant matter into simpler compounds for reuse in the soil. They are responsible for a large portion of plant decay that happens in nature; most of these processes are beneficial and harmless to us and our landscapes. But we also have dormant harmful microorganisms and disease-causing lawn fungi in the soil. They are just waiting for the right condition to be active and make the lawn disease come out and can be spread in soil from transplants, by splashing water, or by airborne spores. They are like silent enemies, looking for the perfect time to attack, most commonly when your turf is stressed. When fungal problems arise, we often notice signs of disease similar to other landscape problems, such as bacterial and viral pathogens and insect pests. With early detection and swift treatment, your lawn will stay on the right track.

Lawn fungus can quickly undo good landscaping work. Fungus can quickly spread, and once it reaches enough of the lawn, it becomes extremely difficult to stop. St. Augustinegrass is susceptible to three major fungal diseases during the wet season: gray leaf spot disease, take-all root rot, and phythium root rot. Phythium root rots aboveground symptom is typically a nonspecific decline in turf quality and are the result of fungal activity on the root system.



Grey Leaf Spot

The Connection Between Honeydew & Sooty Mold

This sweet-sounding, sticky substance is a waste product of scale insects, aphids, mealybugs, leafhoppers and whiteflies.

As the pests excrete the sweet substance, it spreads a coating and sticks to leaves, stems, flowers, and fruit. This sugary substance is a by-product of this particular type of insect digestion.

The insects want the protein from the plant sap. The sap is very high in sugar and very low in protein, so the pest must consume vast quantities to get the protein they need. Because they cannot use sugar, it just passes through their body and is excreted on and around the plant the insects feast upon. This sugary substance is an ideal food for the fungus that becomes "sooty mold."

Sooty mold is a plant mold that results in an unsightly black discoloration on trees. Without proper control, it can make the host plant turn entirely black. These pests can cause the host plant to lose its ability to absorb enough sunlight. Consequently, the affected plant risks not producing the nutrients it needs to survive.



Aphids, together with the Azalea bark scale, causes sooty mold to form on your crepe myrtle's leaves



Lessons Learned from Trees and Grass

Achieving Success Requires Patience and Persistence

"Knowing trees, I understand the meaning of patience. Knowing grass, I can appreciate persistence." - Hal Borland

Patience and Persistence

Trees and grass need time to grow, and therefore, they symbolize patience. It is the same with us too. We need time to achieve goals, especially big goals, and this requires patience. If we are too impatient, desiring to have immediate results, we might be disappointed and quit our goals.

We have to study, improve ourselves, change our mindset, and work toward our goals. We have to water our goals with ambition, motivation and effort, so that they will come true, just as we need to water a tree, so it can grow.

Most trees need years to grow and become big trees. Big goals also need time, and you therefore, need patience, just like a tree.

Why You Need Patience and Perseverance

If you don't possess enough patience and perseverance, you need to develop them. These are skills that can be developed like any other skill.

- You need patience and perseverance if you wish to speak a foreign language fluently.
- You need patience and perseverance to lose weight.
- You need patience to build up relationships.
- You need perseverance to build trust with customers.

Patience is very closely related to self-discipline. If you possess self discipline, you also have patience, and vice versa. If you strengthen your self-discipline, you also strengthen your patience.

Now read the second part of the above-mentioned quote:

"Knowing grass, I can appreciate persistence."

Grass often grows through concrete. It can also grow on rocks. It possesses persistence, the ability to continue and not quit until it finds a way to emerge outside, in the sun and air.

- Patience is not simply
 the ability to wait;
 it's how we behave
 while waiting.
 Live life like a tree,
 with a concentrated strength.
- It is so easy to quit when you confront obstacles and opposition. However, if you continue and then win, you will feel great satisfaction.
- ♥ Every person meets obstacles on the way, but only those who don't let the obstacles discourage them, ultimately win and achieve success. This applies to careers, sports, learning, and everything else.
- Persistence is a sign of inner strength and strong character. Without it, you cannot make any progress.
- It is the ability that makes a person a winner against all odds. It is the person who keeps going that wins.
- ♥ Success could be just so close, hiding beyond the corner, and just a little more time and effort are required to gain it.

There is a great feeling of achievement when you persist and don't give up! When you persist, you go the whole way and don't turn back after a few steps. Only those that keep going reach their destination.

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