Leave the Weeds Bee, March 2-8

To combat bee and pollinator decline around the country, the practices of delayed mowing and pesticide avoidance on the lawn are growing trends. The total mowed lawn area in the United States is roughly the size of New England. That means collectively what we do to our lawns has a significant impact on the environment. And since the aesthetic and horticultural norm for lawns in the U.S. is closely a cropped monoculture, lawns are often considered "biological deserts" when it comes to pollinators and many other forms of wildlife.

So, here is the buzz about delaying mowing. While it may seem counterintuitive to let weeds and wildflowers flourish, this bee-friendly approach to lawn care can make a world of difference for our myriad pollinator friends.

Remember that honeybees are from Europe as were many of the settlers in America. Consequently, many of our lawn "weeds" are European imports which are important early nectar and pollen sources for honeybees. This lengthy list includes burr clover, chickweed, crimson clover, dandelions, henbit, purple deadnettle, and white "Dutch" clover.

On the other hand, native Texas wildflowers are a vital food source for our hundreds of native bees, offering a rich supply of nectar and pollen essential for their survival. Many of these bees are pollen specialist and require specific plants. These small flowers, often considered weeds by traditional lawn standards, play a crucial role in supporting bee populations and promoting biodiversity. Examples of native lawn "weeds" or wildflowers include bluebonnets, blue-eyed grass, buttercups, Carolina anemone, crow poison, ladies tress orchids, spring beauty, violets, wild geraniums, and wild onions.

From the perspective of a bee, an unmowed lawn dotted with introduced and native wildflowers is a veritable buffet of sustenance. With each flower they visit, bees collect nectar to fuel their energy and pollen to feed their offspring. Delaying mowing allows these floral resources to remain available for longer periods, ensuring bees have ample food to thrive.

Timing is everything when it comes to bee-friendly lawn care. By delaying mowing until after wildflowers have finished blooming and set seeds (or at least until as long as you can tolerate), we can maximize the benefits for bees. A number of gardeners in the South are now practicing "NO MOW MARCH" giving the lawn over to the pollinators until April. Allowing the flowers to complete their life cycle ensures that bees have access to both nectar and pollen, supporting their health and reproductive success.

Another suggestion for a pollinator friendly landscape is setting aside a portion of your property, farm, lake lot, roadside, “back forty,” or vacant lot for taller native grasses and wildflowers. These are known as “pocket prairies” and should only be mowed once a year to allow for spring, summer, and fall wildflowers as well as nesting sites for stem and ground nesting native bees along with our many butterflies including spring and fall migrating monarch butterflies.

The benefits of bee-friendly lawn care extend beyond the bees themselves. Bees are essential pollinators for many of the fruits, vegetables, and flowers that we rely on for food and beauty not to mention the thousands of species of native flowers, shrub, and trees in East Texas. By supporting bee populations, we also safeguard the health of our different East Texas ecosystems and ensure a diversity of both plants and pollinators for future generations here.

Native and introduced “weeds” are critical sources of pollen and nectar for early season bees and butterflies.

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South Texas Citrus Poised for a Comeback, March 9-15

The Texas citrus crop quality and quantity was better than expected following multiple seasons of weather-related setbacks, according to a Texas A&M AgriLife Extension Service expert. Texas is the third largest citrus producer in the U.S., with the total economic impact of the citrus industry to the state exceeding $300 million annually. With increased fruit prices, cash receipts for citrus farmers recently exceeded $200 million. The Texas citrus industry is almost completely located in the Lower Rio Grande Valley, with most of the acreage in Hidalgo County and the remainder Cameron and Willacy counties. The industry has faced numerous challenges in recent years, including Hurricane Hanna in 2020, winter storm Uri in early 2021, and droughts in both 2022 and 2023. Even a few cold-weather snaps in mid-January of this year brought several hours of sustained below-freezing temperatures to the region.

Effects of winter storm Uri

After Uri, Texas grapefruit production was at about 1.6 million boxes for the 2021-2022 season, down 33% from the previous year's final production of 2.4 million boxes. Orange production was about 400,000 boxes, down 62% from the previous year's production. Juan Anciso, Ph.D., AgriLife Extension vegetable specialist and associate head of the Department of Horticultural Sciences based at the Texas A&M AgriLife Research and Extension Center in Weslaco, said many producers have been worried there may be a repeat of Uri, so either they have decided not to replant citrus or have abstained from expanding their citrus acreage.

"The extended winter freeze of 2021 effectively decimated the citrus crop, losing 2,400-3,000 acres of the 24,000 acres of citrus planted that year," Anciso said. "We were fortunate in that the few freezes we had earlier this year didn't do any appreciable damage to the citrus crops."

The current Rio Grande Valley citrus status

In spite of the challenges of recent years, Anciso said this year's citrus crop production is looking up. He said last year a total of 4.1 million fresh 40-pound boxes of grapefruit and oranges were produced, with 2.4 million boxes being grapefruit and the remainder being oranges. "The 2023-2024 crop is off to a good start," Anciso said. "We have already begun to

harvest oranges and grapefruit, and the quality and yield are both looking really good at this point. There may be as much as a 20% increase over the last year's production in these two crops." Other small-production citrus in the Rio Grande Valley, such as Persian limes and tangerines, appear to be unaffected by quality issues associated with last year's drought, he said. "There also has not been much of an issue with plant disease, including citrus greening, up to this point," Anciso said. "The commercial citrus industry has taken an aggressive approach to curtailing citrus greening, and it looks like their efforts are paying off."

What about water?

The future of the crop, however, will continue to depend on water availability. Citrus production is entirely dependent on the availability of irrigation water, which has been a longtime concern for the citrus industry in South Texas. A recent report by Texas A&M's Center for North American Studies, CNAS, analyzed the economic impact of the worst-case scenario of a complete absence of irrigation water in the Lower Rio Grande Valley. Irrigation water shortages in the region have occurred since the 1990s and have been exacerbated since 1992 when Mexico began undersupplying the average minimum annual amount of water into the Rio Grande as required by a 1944 treaty.

"This water undersupply continues today," said Luis Ribera, Ph.D., AgriLife Extension specialist in the Department of Agricultural Economics and CNAS director. The water deficit for the current five-year cycle that began on Oct. 25, 2020 was 673,892 acre-feet as of Dec. 9. This represents the second largest irrigation water deficit in the last three decades. "The past 30-plus years have demonstrated a trend toward fewer and fewer acre-feet of irrigation water available to the Lower Rio Grande Valley area," Ribera said. Ribera said irrigation continues to be a concern for citrus growers who have struggled to supply recovering citrus with adequate water and face uncertain water availability in the future.

The future of citrus in the Lower Rio Grande Valley

Dale Murden, president of Texas Citrus Mutual, an association representing citrus growers, said he estimates citrus production in the Lower Rio Grande Valley to be at only about 60% of what it was before Uri. "We're still trying to recover from the tree loss and damage from that winter storm, and many producers have been skeptical about replanting," Murden said. However, he said, this year things are looking good for the citrus industry. "Citrus production is up, the current fruit quality is excellent, and prices have remained high, all of which are good for the producer," he said. Murden, who has been in the citrus industry long enough to remember the trials and tribulations of the past 40-plus years, said he is still optimistic about Texas citrus. "Over the years, there have been issues with the weather, irrigation water and

other challenges to the citrus industry, but in production agriculture you've got to be optimistic," he said.

Harvest quality and quantities for Texas citrus producers have been up this season after multiple years of weather-related setbacks. Challenges still remain, but the season has provided optimism to citrus growers. (Texas A&M AgriLife photo by Sam Craft)

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How an Egg is Created, March 16-22

Raising backyard chickens can be a fun and enjoyable experience. Most local producers raise chickens for egg production to provide their families and neighbors with home grown heart healthy nutritious eggs. We tend to take for granted that are laying hens will produce eggs and give little thought into the complex and interesting reproductive structure of laying hens.

Before we go any further into a discussion on the hen reproductive system it must be stated that it does not take a rooster to be present to produce eggs. A hen will naturally produce eggs if feed, water, shelter, temperature, and light hour requirements are met. A hen is born with every ova (which will develop into full size yolks) she will every need in her lifetime. Interestingly, a hen has two ovaries, but only the left one is functional and contains 3,600 to 4,000 ova at birth. The tiny ova are held in place by a stalk. Once the hen reaches maturity ova will systematically enlarge and develop one by one into mature ovum, which at that point is released from the ovary. At the time of release, the mature ovum is the full size yolk of the egg and the rest of the reproductive system adds the egg white and shell. Only one mature ovum will be released at a time, approximately one a day; however, a double yolk egg is the result of two mature ovum being released at once.

The ovum will now spend 25 ½ hours being transported through the sections of the oviduct until the time of laying. The first section is the infundibulum, which is funnel shape and catches the ovum after release. The ovum will only remain in the infundibulum for 15 minutes. Next the albumen (white part of the egg) is added in the Magnum section. It will take 3 hours for the albumen to be added. After the Magnum, the egg enters the Isthmus section for 1 hour and 15 minutes where the inner and outer shell membrane is added. The shell membrane protects the egg contents from outside contamination. The last part of the egg to be added is the shell which occurs in the uterus. This is the longest step in the process in the egg will remain in the uterus for 20 hours and 45 minutes. The egg is typically laid by the hen within 15 minutes of it leaving the uterus.

Next time you are in the chicken coop collecting eggs for your omelet, think of the complex process it took for the hen to produce that egg. It all started over a day ago long before you even steeped inside the chicken coop.

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Turtles, March 23-29

Turtles may be one of the most easily recognizable species in the world. No other animal has a protective home like the shell of a turtle. Scientifically speaking the shell is made of two sections the upper shell called the carapace and the lower shell called the plastron. The shell is made of scutes or sections that can help with ID species. Turtles are classified as reptiles and these remarkably reptiles are at home in a variety of habitats from oceans to marshes, to forests, to deserts. Worldwide there are approximately 240 species of turtles with over 30 species being found in Texas. Texas turtle diversity is unique, and each group has a unique set of characteristics.

The first group is snapping turtles also known as water dragons. Two species of snapping turtles can be found in Texas, common and alligator. Both can reach large sizes and have long serrated tails, large ridges on the shell, and are known for short tempers. Snapping turtles can reach over 200 lbs. in size but are rarely seen. They don't bask on logs and are typically buried in the mud of the aquatic habitat they call home.

Mud and musk turtles are nicknamed stinkpots. These small bottom crawler aquatic turtles are approximately nicknamed after the musky secretion they can exclude from glands on their body. Mud and musk turtles rarely leave water and will bask in the open but rarely on logs or on the shore. They typically bask in shallow water which is the best opportunity to see them. These turtles are known to have sharp jaws and being short tempered. Mud turtles have much larger plastrons then musk turtles.

The next group of turtles is a large group and includes sliders and cooters, box, map, painted, terrapins, and chicken turtles. All these species belong to the turtle family called Emydidae. Sliders and cooters are the most common turtle seen. They are readily seen basking on logs in rivers, lakes, and ponds and are usually abundant in their ideal habitat. Sliders and cooters can be ID by comparing patterns and colors on the shell. This group includes common species like red eared slider and Texas river cooter. Box turtles are the terrestrial turtles usually encountered in Texas. They can completely close their shell tight protecting them from predators. Box turtles have a hinge across the middle of the plastron allowing them to move the bottom part of their shell in two sperate lobes. Box turtles are adapted to a variety of terrestrial habitats from three toed box turtle found in woodlands of east Texas to desert box turtle found in the dry deserts of west Texas. Box turtles are only found in North America. Map turtles are found in large rivers and lakes. They are difficult to catch and observe since they are shy and quick to dart from their basking locations. They are some of the most beautifully marked turtles in U.S. Some species have upward projections along the ridge of carapace leading to the nickname sawbacks. Texas map turtle and Cagle's map turtle are only found in central Texas. Painted turtles can be ID by their smooth, unkeeled shells and attractive patterns of red, yellow, and black. Texas is home to

only one species of painted turtle. Terrapins are known for their flesh and is considered a delicacy by cooks. Terrapin numbers where dramatically reduced due to market hunting, but numbers have rebounded in the eastern U.S. Texas is home to the diamondback terrapin than can be found in coastal brackish marshes. Chicken turtles are known for their long necks and one species, the western chicken turtle, can be found in the eastern third of Texas in a variety of aquatic habitats.

Tortoises have noticeable characteristics such as stumpy feet that are elephant-like, heavily scaled forelimbs, and a high and rounded carapace. Tortoises are vegetarians and the Texas tortoise can be found in south Texas where it readily consumes prickly pear cactus.

Softshell turtles are named for their soft leathery shells that lack scutes. Their shells can be bent. Softshell are powerful and agile swimmers. They have extremely long necks, sharp jaws, and should be handled with caution. They may be seen basking on the bank, but typically they bask in shallow water with their nostrils barely above the waterline.

Texas last group of turtles are the 5 sea turtle species that nest on Texas beaches or can be found in offshore waters. These large turtles have modified limbs that have evolved into flippers. They are at home in the ocean and only come ashore to lay eggs. Leatherback sea turtles can reach weights over 1,000 lbs.

Next time you are walking in the woods, along the edge of a pond, or out on the lake see if you can spot some of our Texas turtles!

Examples of Texas Turtle divesity from top: Three Toe Box Turtle, Alligator Snapping Turtle, Photo Courtesy of Sabine River Authority, Yellow Mud Turtle and Southern Painted Turtle Photos Courtesy of Missouri Department of Conservation

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Four Tips for Easier Mowing and Keeping Lawns Lush , March 30 – April 5

As the weather starts to get warmer and homeowners are preparing their lawns for spring, many may be dreading the idea of mowing in the hot sun in the coming months. However, turfgrass mowing doesn't have to be as tedious and exhausting as many may think. There are practices to make mowing quicker and easier to keep lawns looking lush with less work. Pablo Agustin Boeri, Ph.D., Texas A&M AgriLife Extension Service turfgrass specialist, in the Department of Soil and Crop Sciences of the Texas A&M College of Agriculture and Life Sciences, shares tips for homeowners to make mowing as pleasant as possible this spring.

Tip one: The right mower matters

The kind of mower you use can make or break your mowing habits. The sharper you keep your blades, the quicker and easier it will be to cut your grass. Boeri said if you let your blades get too dull, your turfgrass will be damaged. This can cause grass to be cut at uneven lengths, which makes mowing more tedious. Autonomous mowers or robot mowers have been gaining popularity due to various benefits, such as reduced labor, energy consumption and gas emissions compared with traditional, gasoline-powered mowers. "Robot mowers have small blades that only need to be changed every month or two to keep them sharp," Boeri said. "Which is nothing compared to the larger task of changing a rotary mower's blade."

Tip two: Reducing mowing

Once the temperatures start to increase, mowing can be a daunting task to many homeowners, especially if their yard doesn't get much shade. Boeri said there are practices you can take to reduce the amount of mowing without making your yard look overgrown. "If you irrigate too much and use more than the recommended amount of fertilizer, your grass will grow too quickly and you will have to mow more often to avoid scalping the turf," Boeri said. To learn how much water your specific yard needs, AgriLife Extension offers the WaterMyYard program, which will send you weekly watering advice specific to your irrigation systems and lawn. If you choose to use a nitrogen-based fertilizer for your grass, Boeri said it should be kept

at a minimum for less frequent mowing. “It’s better to use a fertilizer that will release slowly,” he said, “If you use a quick-release fertilizer, your grass will grow significantly in a shorter amount of time and can be hard to keep up with.”

If you want to avoid mowing in the summer, you can maintain irrigation at a minimum and let your grass go dormant. Check the drought tolerance of your turfgrass and the soil conditions before doing so. Boeri warned that if you are concerned with the color of your grass, your lawn will look brown if you let it go into dormancy.

Tip three: Select the right turfgrass

How often homeowners need to mow is also dependent on the kind of grass they have. Some grasses have slower vertical growth rates than others, which can produce greener looking lawns with less maintenance. “If you’re looking into picking a new turfgrass, buffalograss is a native grass that can be left unmowed,” he said. “Species like Bermuda grass tend to recover faster than other turfgrasses from scalping damage.” Boeri said ProVista, a St. Augustine grass variety, is also a good low-maintenance breed of turfgrass. This variety has a gene that makes the grass denser and lower to the ground, requiring less mowing than other grass varieties.

Tip four: Don’t cut your grass too low

One of the most important things to remember when taking care of your lawn is to follow the recommended mowing height. Boeri compares the practice of mowing your lawn to pruning a plant. “We need to follow proper maintenance practices and to make sure we aren’t reducing the grass’s ability to deal with stressors such as drought,” he said. Boeri said the general rule is to mow less than one third of the leaf each time you mow. It’s important for homeowners to be wary of the height of their turfgrass and the frequency of mowing to ensure lawns are kept happy and healthy.

Some types of turfgrass grow slower than others, making for a low-maintenance lawn. (Texas A&M AgriLife photo by Michael Miller)

Article Written by Katharine Cook, Texas A&M AgriLife Extension Public Relations

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