



..... November 2021



On October 18th BCMGA held a Rainwater Barrel Building with the disabled adults at Eldred's Nursery.

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November 2021

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3 Work Day Burger Wednesday	4	5	6
7	8	9	10 General Membership mtg & Continuing Ed.	11	12	13
14	15	16	17 BOD meeting at 9 am in Learning Center	18 Community Oureach Seminar 6-8 at the Learn-	19	20
21	22	23	24	25	26	27
28	29	30				

"Hope is one of the essential tools of a farmer or gardener."
Amy Stewart

Remember to record volunteer service
hours and education hours each month.

To help prevent the spread of COVID-19, please continue to practice
social distancing and wear a mask where appropriate.

President's Corner

Glenn Melton



I would like to discuss a challenge we have been dealing with for quite some time now. It all began when COVID struck and has continued a downward spiral ever since. I am talking about the lack of participation in one of our most visible and important duties, the appearance of our landscape beds and overall condition of the Extension grounds. Understandably, the lack of maintenance performed by members may be attributed to restrictions and guidelines imposed by Agrilife in order to keep our membership safe. COVID up-ended many of our daily routines and we faced challenges unknown before this pandemic struck. It presented problems at home, in our relationships with family and extended family, as well as members of the public we interact with daily as we go about our business.

Now that many more of us have been vaccinated and restrictions lifted, COVID is behind us (for the most part), and we have started to resume business as usual. Socializing among members is an important aspect of our organization and can once again be enjoyed by all members. Large gatherings and in-person meetings are the norm once again.

And so now we find ourselves where we were pre-pandemic. Service and Educational hour opportunities abound and there is much work to be done. I am asking for everyone's support and urge you to resume participation in those activities that brought so much joy and satisfaction just as they did months ago.

Now is the time for our members to once again rise to the occasion and show what can be done when we set our hearts to it. I am asking those of us who are Board members to set the example and actively take part in all events and activities that benefit the membership and the Association as a whole. To do less would be a disservice to all. With everyone's help and support we will soon rediscover our organization and again realize the benefits and satisfaction the BCMGA brings us, Agrilife, and the citizens of Bell County.

Thank you.

Glenn

Educational Article by Wayne Schirner

Hot Composting

Since hot composting is the composting method that results in usable compost more quickly than the other methods, I wanted to provide information on that method. Keep in mind that no matter which method of composting you use, compost happens.

Hot composting is simply the active management of the decomposition process that occurs in nature. The goal is to speed up the natural process for our own benefit. To manage the process, we need to understand a little about how it works. The decomposition of organic material is accomplished with the help of macro and micro-organisms. It is the chemical decomposers that release nutrients in a form that plants can absorb. If we are in a hurry to get useable compost, it is the microbes that we want to encourage. If these beneficial microbes have the right amount of air, water, and food they can generate measurable amounts of heat. It is common to reach temperatures in the range of 140F to 160F. That is enough to destroy most weed seeds and pathogens, and why it is called hot composting.

Now, let's consider the basic requirements. Anaerobic microbes are stinky. The microbes we want to encourage need oxygen, which will prevent the pile from smelling. If a pile is smelly, the first thing to do is turn it. This creates air spaces in the pile which allows the beneficial microbes to have access to oxygen. The microbes also have a requirement for moisture. If there is no water, the microbes will dehydrate and die. Too much water will displace the air spaces causing anaerobic conditions. A good rule of thumb is the material should feel like a squeezed sponge. If you pick up a handful and squeeze it and water drips out, it is too wet. If the squeezed handful of material falls apart as soon as you open your hand, it is too dry. A squeezed handful of the mixture should stay in a clump for a few seconds before breaking apart. Aerobic microbes are living and need nourishment. Their food is the organic material in the compost pile. All organic material contains carbon and nitrogen. The energy requirements of microbes are met by the carbon component and the growth requirements are met by the nitrogen component. If we want the pile to decompose into compost quickly, the ratio of carbon to nitrogen becomes very important. I suspect that this is the part that many composters find to be complicated, but it doesn't have to be that way. Let me see if I can simplify it. All organic material has a carbon: nitrogen (C:N) ratio. The terms "browns" and "greens" refer to the C:N ratios of different organic materials. Greens are those materials that have a C:N ratio less than 40:1. There are no exact numbers, but kitchen scraps are in the range of 12-25:1, manures are in the range of 6-25:1, fresh grass clippings are usually 20:1 as are coffee grounds. Garden wastes and freshly pulled

weeds are close to 30:1. You can tell from this list that the term "greens" doesn't refer to color. Browns are organic materials with a C:N ratio greater than 40:1. Leaves are in the 40-80:1 range. Pine needles are 80:1. Shredded newspaper is 175:1 while shredded cardboard is 350:1. Sawdust is 350-700:1 while wood chips are 400:1. Again, these numbers are not exact and there are various lists available from an internet search for "C:N ratios of common organic material."

Many gardeners probably obsess over the C:N ratios more than is necessary, but some attention to this can keep your compost pile working smoothly and quickly. The experts don't all agree, but most of the composting experiments suggest that a C:N ratio of 30:1 is the optimum because studies show that the required temperatures are most easily achieved at that ratio. That is the ratio at which the beneficial microbes grow, reproduce, and decompose organic material at the fastest rate. Higher ratios will usually give a slower composting process at lower temperatures.

Backyard composting should be fun and easy, so there is no need to do exact mathematical calculations to get this “optimal” ratio. There is a “rule of thumb” that works for me. Mix half brown stuff and half green stuff by weight. Grass clippings and kitchen scraps (the most common greens) are much heavier than dry leaves (the most common browns), so it may take two-three times the volume of leaves to equal the same weight of grass. If you use a lot of newspaper or cardboard in your pile, you will need significantly more greens to get the C:N ratio close to 30:1. The particle size of the organic material also affects the speed of decomposition, and in general the smaller the better. There are many ways to reduce particle size. A lawn mower, especially a mulching mower, with a bagger attachment can quickly shred and collect a pile of leaves. A shredder is another way to quickly reduce the particle size, but a machete or clippers can also be used. Putting organic material in a large trash can and using a weed whacker inside the can is another effective method.

Make sure you wear goggles and gloves for protection when using any of these methods. The size of the compost pile also has a significant effect on the rate of decomposition. Small piles dry out quickly and cannot maintain appropriate moisture, while large piles can be more difficult to turn and become anaerobic. The usual recommended pile size for hot composting by homeowners is 3'x3'x3' to 4'x4'x4'. A bin isn't necessary for the microbes to do their work, but a bin may make it easier to control and monitor the process. If a pile is in the recommended size range, and all the other requirements previously mentioned are met, hot composting will occur. A simple bin can be constructed from wire fencing placed in a circle that is 3-4 feet in diameter and 3-4 feet tall. When it is time to turn the pile, simply lift the wire cage and place it nearby. Then turn the existing pile into the wire cage in its new location.

The fastest rate of decomposition usually occurs when the pile is built all at once. Layer the browns and greens in a proportion that gets you close to the 30:1 ratio and add water as you build the pile to achieve the desired amount of moisture. This means there needs to be some advanced planning. Leaves are usually only available in the fall/winter, but they are easy to store. Fresh grass clippings are usually only available in the summer months. I store leaves so that I have them available when I can get fresh grass clippings. The grass clippings that I use come from a portion of my property that has never had fertilizers or herbicides applied. I use a plastic bin to accumulate my kitchen and garden wastes until I am ready to build a pile. The materials I have accumulated are all run through a shredder when I am building a pile. If the C:N ratio of the pile is close (enough) to the optimum, the temperature of the pile will reach 140-160F in 2-3 days.

The frequency of turning a pile is a matter of personal choice. I use a compost thermometer to help me determine when to turn my pile. The microbes that cause the fastest rate of decomposition are those that are active in the 140-160F range. When the temperature of my pile drops from 160 to 140, I turn my pile. The temperature will rise again and when it drops back to 140F, I turn it again. I keep doing this until turning my pile no longer causes a rise in temperature. Without a compost thermometer, I would simply try to turn my pile every week. In general, the more frequently a pile is turned, the faster the rate of decomposition. Every time the pile is turned, add more water to any dry spots to maintain the appropriate moisture level. When the temperatures eventually fall to the levels of the environmental temperature and rising temperatures no longer occur with turning, the compost is stable. There is still cold composting occurring from the microbes that live at lower temperatures, so you can just let your stable pile sit until you are ready to use the compost.

Happy Composting!

Junior Master Gardener Program

Howdy,

This will be an excellent way to learn, network and prepare to have a successful JMG group.

Do you work with kids gardening programming on a regular basis, or do you want an opportunity to explore new ideas and curricula available to support youth programs? Consider registering for the **2022 Junior Master Gardener National Leader Training**, held **February 21 - 23, 2022 in College Station, Texas!**

Through this conference, you will learn how to:

- Utilize all curricula resources
- Implement best practices, project-based learning, managing students/groups
- Access Group/class registration, recognition & certification options
- Involve local county Extension, volunteers and parents in your programming
- Reach into schools, after school programs & clubs
- Prepare/lead JMG teacher training workshop events
- Generate funding to support programs
- Build sustainability through community collaborations and partnerships
- Utilize program resources, marketing materials

Develop custom implementation plans

Register and make plans to join the JMG team today!

For more information on the conference, click [here](#).

Best,

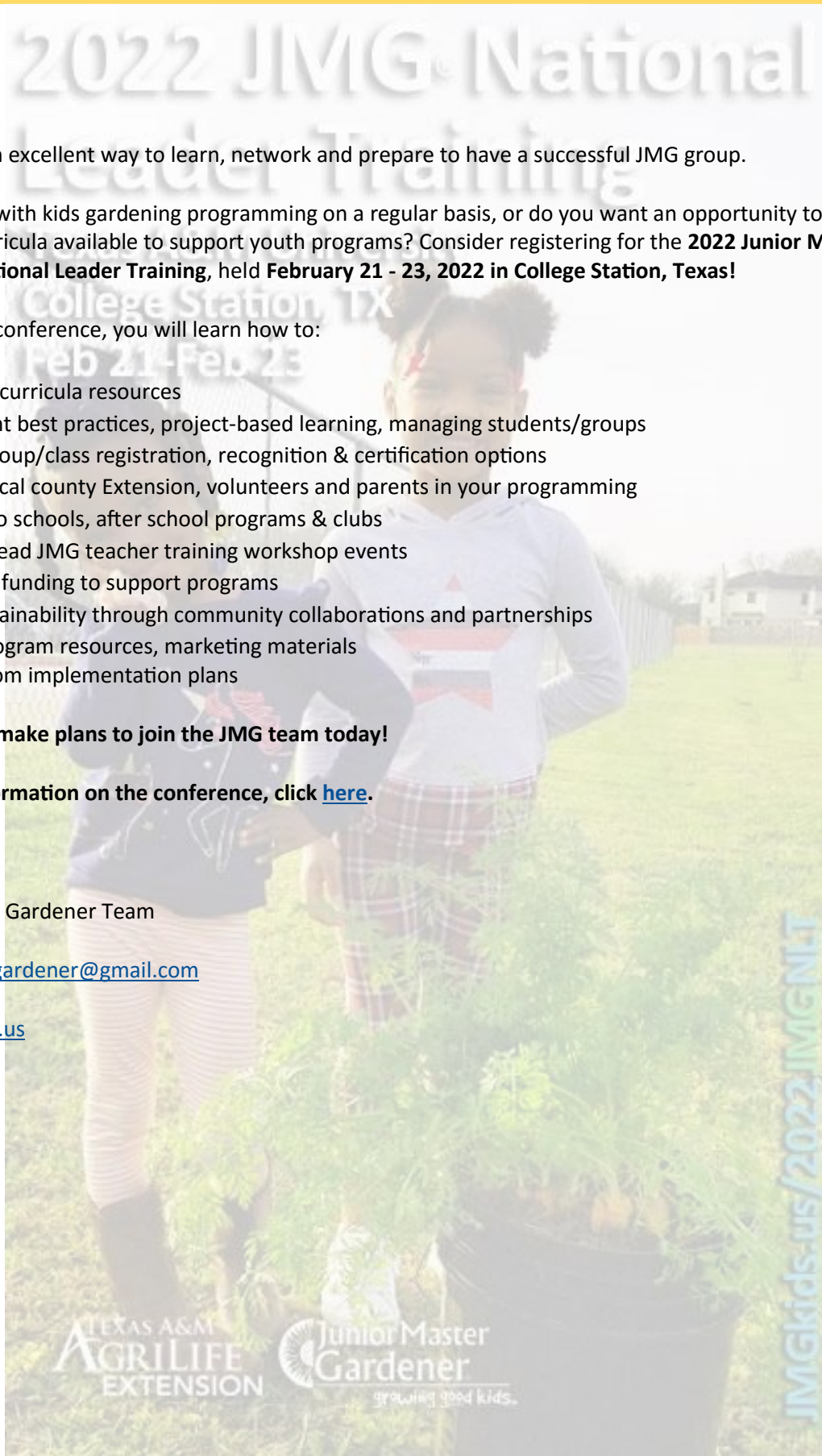
Junior Master Gardener Team

juniormastergardener@gmail.com

www.jmgkids.us

Thanks,

Jayla



Projects in the community

Killeen Municipal Court Community Gardens

The gardens have had a great revival and recovery from the August deer damage. There was no harvest in September but a temporary fence has allowed some new plants to mature , others to regrow and again produce a weekly harvest in October. While final totals are not available this should be a more normal produce production month. (All produce donated to Killeen Friends and Families in Crisis).



Members Photographs

Photos: David Quesinberry

Text: Mary Lew Quesinberry

Black Swallowtail Butterfly

The Black Swallowtail Butterfly is very easy to attract to your garden. Just plant parsley, fennel, dill, or carrots and wait for the caterpillars to appear. They will also use a willow, Cottonwood or citrus tree for a host plant.

The adult butterfly lays eggs on the host plant and in 4-10 days the eggs will become caterpillars. The caterpillars will eat the host plant for 3-4 weeks, then morph into a chrysalis. After 10-20 days the adult butterfly leaves the chrysalis and searches for food. They like the nectar of zinnia, Purple Coneflower, Salvia greggi, phlox, gallardia, milkweed, Penta and Mystic Spires salvia.

In the photo are two of the ten caterpillars that appeared on the parsley in a large container containing parsley, Winter Savory and waxed begonia. The second photo shows a male Black Swallowtail that has just left its chrysalis and is waiting for its wings to dry before it can fly.



Gulf Fritillary Butterfly

The Gulf Fritillary Butterfly uses the ornamental Passion Vine and the Texas native Passiflora incarnata as its host plants.

This butterfly is present in Central Texas most of the year and is 2.3 to 2.6 inches in size. It is categorized as a longwing butterfly because its wings are elongated.

The Gulf Fritillary butterfly is attracted to the red color of Turk's Cap, Salvia greggii, Flame Acanthus and Texas Lantana. Gregg's Blue Mist, Shrubby Boneset, Purple Coneflower, Blazing Star Liatris, Texas Aster, Woolly Ironweed and Zinnia are other nectar plants that attract the Gulf Fritillary.



Members Articles

Imported Red Fire Ants

Multiple fire ant mounds have appeared since it has stopped raining. The ants have always been present, but they had not made mounds. The Texas Two Step is the method recommended by Texas A&M. Put out a bait when the ants are actively foraging, usually in the late afternoon. To check if the ants are foraging put a small amount in a pile and see if they pick it up. Bait can be spread with a hand seeded or by shaking it out of the container. Baits are best applied when rain is not expected for 24 - 48 hours. More is not better, just more costly. About a week or 10 days later if there are still ants you can do a mound treatment with a bait or chemical.

Mound drench treatments work also. I have used a tree root feeder to place the chemicals inside the mound. Some mounds took a pint, some took five gallons. Admittedly I was a bit oversized using a 55 gallon tank and a tractor sprayer! I was covering about eight acres, and the results were good. Also you can use a dust or granular product to treat individual mounds if you need quick knock down in a sensitive area where children and pets play.

Always read the label and follow the directions. Some products are not approved for use in vegetable gardens. For more information visit <https://fireant.tamu.edu/controlmethods/twostep/>

Charles Newsom, Fire Ant Specialist

Help Needed / Announcements

COVID19 restrictions have been lifted and most projects are gearing up for 2022 and could use your help. You can find a complete list of projects in VMS; there you can email the project manager for volunteer opportunities. For help with finding an active project to volunteer in you can contact Stacye Parry at stacye1120@gmail.com.

HELP DESK: Beginning in 2022 the HELP DESK will be open 5 days a week. We are looking to fill 3 hour shifts with 2 people per shift. There is a morning shift, 9:00 am to noon and an afternoon shift, 1:00-3:00 pm. We are already starting to take volunteers. Working in the new Education Center is a great way to learn. getting your continuing education hours and to fill you service hours.

NEW OFFICE NAME & HOURS: Beginning January 2022, the MG office will be called The Education Center. We will have displays for the public both from MGs and from the Master Naturalists, along with our education materials being displayed and available for the public. The Education Center will be open Monday through Friday (closed on Holidays) 9:00 am to 4:00 pm (closed for lunch noon-1:00 pm). The Education Center is located in the first office on the left as you enter the Extension Building. Stop by and see us. We are currently working on the display plans while we are working at our new help desk.

ADVANCED TRAINED MEMBERS MEMO FROM TERI MARCEAU

I am compiling a list of MGs who have gone through any advanced training to keep handy at the Help Desk so we can start to share the wealth of inquiries we receive. Just in May with all the rain we received over 80 calls/emails. It would be very helpful to be able to spread the work load out as the summer approaches, so will the calls/emails increase. Just send me a quick email with your name, preferred phone number, email and what your advanced training is in. Thanks so much. Teri Marceau

I am still taking orders for our BCMGA merchandise. I need a minimum order of 25 for the T-shirts order since these are screen printed. I currently have 10 orders and I need 15 more orders. I only have 1 order for the sweatshirts and I would need 24 more orders. The other items that are embroidered do not require a minimum order.

Screen printed items - T-shirts, aprons, & sweatshirts - these are royal blue with white screen printed logo
Embroidered items - mesh caps, visors, tote bag - these are royal blue with white embroidered logo.

The men's and women's denim shirts are a chambray with colored embroidered logo.

If you have any questions, please contact me.

Sylvia Maedgen 254-624-6171

Help Needed / Announcements

Communications

Please send photos of your garden with a note about your photos to TeriMMarceau@gmail.com or to [Bell.mg@agnet.tamu.edu](mailto:bell.mg@agnet.tamu.edu) and Teri will post them on Facebook.

If you know of someone in our organization who is ill, scheduled to have surgery, or has lost a loved one (including fur babies) please email Teri Marceau at bell.mg@agnet.tamu.edu, or our correspondence secretary, Debbi Harris, at dcharris99@yahoo.com.

An appropriate card will be sent.

BIRTHDAYS: The communication committee is looking for your birthday (month and day) so we can celebrate with you. Please send the date to Teri Marceau at terimmarceau@gmail.com. We LOVE to celebrate our

Board of Directors Meeting

The Board of Directors Meeting will be held on **Wednesday, November 17th, at 9 a.m.** Please submit your agenda items to Sylvia Maedgen, Recording Secretary, by **Wednesday, July 10th.**

Grounds Workdays

Karen Colwick and Paul Carter

List of individual tasks are posted on the gate each week. Gate code is 2019 and extra tools may be found on back of the wood shed.

In the event of rain, there will be no work day.



Refreshment Committee General Membership Meeting

A minimum of 7 volunteers are needed for each meeting.



Directors

Communications	Teri Marceau	2020-2022
Facilities	Paul Carter, Dave Slaughter & Karen Colwick	2019-2022
Membership	Sherry Oermann	2020-2022
KMCCG	Dave Slaughter	2021-2021
Outreach	Crystal Mears & Rebekah Lackey	2021-2022
New Class	Gary Slanga / Gail Koontz	2019-2022
Projects	Wayne Schirner & Stacye Parry	2020-2022
Youth	Janice Smith	2020-2022

Executive Board

President	Glenn Melton	2019-2022
1 st Vice President	Jan Upchurch	2020-2022
2 nd Vice President	Bill Walker	2019-2022
Recording Secretary	Sylvia Maedgen	2020-2022
Treasurer	Barbara Ishikawa	2020-2022

AgriLife Agent Lyle Zoeller

Texas Master Gardener website

<https://txmg.org>

Bell County Master Gardener website

<https://txmg.org/bell/>

Texas Master Gardener Volunteer Management System

<https://vms.texasmg.org/>

Editor: Julian Hancock

Please submit articles with photos not to exceed 300 words and without photos not to exceed 500 words as Word documents. Photos should be sent separately in a folder through a link using OneDrive, Dropbox, or Google Photos. **Photos must be in the JPEG format.** Do not text your photos. *(If texting is preferred, please let me know in advance.)*

Email your documents and pictures to Julian at julianhancock61@gmail.com.

Please do not send PDF documents. I will send them back to you!

BCMGA Webmaster: Rachel Glass - glass.rachel@gmail.com

Please send your updates for the BCMG website to Rachel.

CHECK OUT BCMGA FACEBOOK PAGE! GO TO

<https://www.facebook.com/BCMGA>



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