President’s Letter

July has been a month of opportunities for Master Gardeners. At the request of the people at the Kaufman Cancer Center Upper Chesapeake Hospital, Linda Masland put together a program, for patients and staff, on various aspects of gardening. I volunteered to present the first class, a “how to” on container gardening. The facility and resources were wonderful – there was a modern conference room for showing presentations and a beautiful garden with tables, perfect for giving hands-on demonstrations. I was very impressed with the setting, but was also very grateful when a cancer patient told me that my class helped him – that a container garden would fulfill his need to plant, but would not tax him during his days of low energy due to cancer. Compliments like this are my greatest reward as a Master Gardener.

July was also a month for teaching gardening skills to children. Joyce Browning, Nancy Cohen and I spent every Monday in July at the Edgewood Village of Lakeview, teaching summer camp youth gardening skills. The three of us assembled a raised bed and two earth boxes in which the children planted tomatoes, thyme and basil. We also planted a row of bush beans in the raised bed. During one Monday session the children learned how to plant in containers. Everyone left the class with a pot planted with marigolds. Campers ended their July camp with a career start as gardeners– watching their own marigold seeds sprout and grow.
July was also a time of new beginnings at the Havre de Grace Farmer’s Market. The City decided to make their Farmer’s Market more appealing to shoppers and vendors by erecting a large tent at the bottom of Congress Avenue. Marlene Butler and her hardy staff of Master Gardener volunteers staffed the July MG table. The new location and tent seemed to have increased interest in the Market as well as the MG table! And the shelter of the big tent was much appreciated during the seasonal rainstorm that July day.

This week marks the start of the Harford County Farm Fair. Alma Illian is staffing our annual table in its new location under the Artisan’s Village Tent. Artisan’s Village will offer visitors a place to sit and watch vendors demonstrate sewn crafts, woodworking, beekeeping, collage making and herb container gardening (that is our demo!). This new location will keep us near the Susquehanna Beekeepers’ table which is always a popular draw. And we boast a shorter day with our booth closing at 6 pm daily. There are still some volunteer spots left – please telephone Alma if you are interested.

This column did not cover all July events. Here is a list of other July activities in which MG’s participated: MG table at Keys Creamery for Harford Farm Visitatation Day; Joyce’s youth gardening class at APG Edgewood; Joan Parris’ MG table at APG; Ellen Post’s Open Garden tour; Daytime Study Group discussion of the Open Sesame movie; monthly Brightview visit; Ask a MG at the Bel Air and Abingdon Libraries; Cutting Garden presentation at the Bel Air Library; Seed Saving class at the Joppa Library.

I would also like to recognize Mandee Tejada, our Facebook page administrator/contributor and Diane Payne our email Chain Chair. They both kept us running through the hot month of July.

We have many more ongoing events with committed teams of MGs. Like the Liriodendron garden, Rockfield Manor garden, Eden Mill vegetable and butterfly gardens and Ladew Butterfly garden; and every one of them could use your help!

Anyone reading this column, or viewing our schedule, will recognize that Harford County Master Gardeners are an active group in the county and are becoming more active with time. Although we’re a relatively small group, we are finding opportunities (or opportunities are finding us) in all parts of Harford County. As July turns to August opportunities continue to grow! Thanks to all of the MG volunteers who help staff all of our activities and events during the month of July. Our volunteers are the heartbeat of our group.

Ellen Haas

See photos of MG’s Caught in Action during July on the last page of this newsletter.

A young metamorph gray tree frog, probably only a month or so from swimming around as a tadpole. It will lose most of the green as it grows older.

Eleanor Cone photos
1. Regular tillage/plowing helps keep open pores at the soil’s surface and increases water infiltration into the soil. **True or False**

2. Microorganisms in the soil generally harm plants. **True or False**

3. In a teaspoon or two of healthy soil there can be more living organisms than there are people on the globe? **True or False**

4. Half of the healthy soil’s composition should be pore space that contains air, water and microorganisms. **True or False**

5. Organic matter buffers the soil against big changes in moisture and temperature. **True or False**

6. Healthy soil should be allowed to rest from time to time—that is lie bare without growing plants. **True or False**

7. Fungi are not needed for healthy plant growth. **True or False**

8. Each one percent increase in soil organic matter could increase soil water holding capacity by 20,000 – 25,000 gallons per acre. **True or False**

9. Earthworms are more abundant in tilled or plowed soil. **True or False**

10. Leonardo DiCaprio wrote, “We know more about the movement of celestial bodies than about the soil underfoot.” **True or False**
Answers to the Soil Smarts Quiz by USDA

1. False. You may be happily hoeing in your garden thinking you're helping your plants receive the water they need, but hoeing (or tillage/plowing) actually reduces the capacity of the soil to receive and hold water. Tillage destroys soil aggregates and the biologically produced glues that hold soil aggregates together. This results in the collapse of those aggregates and the pores between them, which can lead to compaction and crusting. However, by using "no-till" drills and planters, farmers can insert the seed into the soil by cutting a very narrow slice into the soil—resulting in minimal soil disturbance.

2. False. Most microorganisms are beneficial to plants in many ways. For example, they decompose residues, and so are able to build soil aggregates. They also make key nutrients available to plants, such as nitrogen, phosphorous, and potassium, through nutrient cycling that is the result of a dynamic soil food web involving soil microorganisms like bacteria, fungi, protozoa and nematodes. Beneficial organisms can also help fight disease organisms. Those tiny organisms are so important that many plants exude substances through their roots to attract them to live in their root zones.

3. True. Living soil organisms play a critical role in decomposing crop residue into soil organic matter that enhances nutrient cycling and a soil's available water holding capacity.

4. True. An ideal soil composition by volume should be about 50 percent solids (45 percent mineral and 5 percent organic matter, though this depends on climate and texture too!), and approximately 50 percent pore space (in ideal weather approximately 25 percent air and organisms that need that air to breathe, 25 percent water).

5. True. Organic matter provides insulation from variations in temperatures and it provides greater water holding capacity. Increasing the soil organic matter by one percent can add approximately one inch of water to the soil profile.

6. False. Never leave soil bare. Having plants growing all the time allows more solar energy to be converted into carbon to feed soil microbial populations and improve soil health. When living roots grow in the soil throughout the year, they continuously feed soil organisms and build porous soil structure (through root and earthworm channels, decomposing residues to create soil organic matter, and producing biotic glues). Root-fed microorganisms also help make nutrients available to crops.

7. False. Fungi are required for healthy plant growth. Arbuscular mycorrhizal fungi (abundant in healthy soils) have a symbiotic relationship with almost all agricultural plants. They grow into the inside of plant roots to tap into the sugars and carbohydrates transported from the plant leaves. In turn, the fungal hyphae (filaments) that grow out from the roots bring water and soil nutrients back to the plant, and they can even help protect roots from pathogens. (A pretty amazing relationship, huh?)

8. True. A one percent increase in soil organic matter could result in as much as 20,000 to 25,000 more gallons of available soil water per acre. (That's the amount of water that will fill a typical 18'x36' residential swimming pool.) And since only a portion of the total water in a soil is “available,” the increase in the soil’s water holding capacity is even greater than that. That’s the kind of water retention we can all live with!
9. *False.* Tillage damages earthworms directly and also damages the habitat earthworms need to survive. It stimulates drying the surface soil and creates wide day/night temperature fluctuations. Tillage also brings earthworms to the surface where they are subject to predators such as birds. Total earthworm populations in long-term no-tilled fields are typically at least twice those of clean-tilled fields!

10. *False.* (Hey, we had to throw in one tricky question.) It was the other Leonardo – Leonardo da Vinci. And he’s probably right. Though we’re learning more about the soil’s complex and miraculous ecosystem every day – the more we discover, the more we realize how much more there is to still learn about that amazing universe beneath our feet.

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**Taken from the University of Maryland IPM Weekly Report**

*July 17, 2015*

An excerpt from a report by Stanton Gill, UME Extension Specialist, Nursery & Greenhouse Management after attending *Cultivate 15* a horticulture conference in Columbus, Ohio.

On the plant end of things, there was a plethora of relatively new dwarf crape myrtles that are being introduced into the nursery industry. These new miniature crape myrtles are not any more winter hardy, but they are only 2.5 ft. tall so sitting closer to the ground the snow cover (if it occurs) may provide some winter protection.

For woody shrubs one of the cooler plants I saw was the hybrid *Hypericum x inodorum*, HypearlTM Compact Red. It was under two feet tall and had beautiful fruits that change from green to white to orange. It makes a very attractive specimen plant in the landscape.

One of the weirder and very popular plant combos this season was the potato/tomato grafted plant. I don’t see why it is so popular, but many garden center owners attending and greenhouse growers said they could not keep enough in stock in 2015. Basically, it is a cherry tomato plant grafted on a potato. I guess the public likes weird, novel stuff.
For cut flower growers there was a new stamen free, double flowering Oriental lily called ‘Rose Lily’ and you can view it at http://www.roselilly.com. It is very attractive and lacks the stamens that drop pollen in people’s house thus eliminating the mess.

MG’s can find the weekly University of Maryland Weekly IPM Report at: http://www.extension.umd.edu/ipm/landscape-and-nursery-ipm-alerts
This report is an essential tool for MG’s serving at plant clinics and for IPM use identifying current pest problems at our various MG gardens.

Family Farms are the Focus of New Agriculture Census Data

97 Percent of All U.S. Farms are Family-Owned

WASHINGTON, March 17, 2015 – The U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) reports that family-owned farms remain the backbone of the agriculture industry. The latest data come from the Census of Agriculture farm typology report and help shine light on the question, "What is a family farm?"

"As we wrap up mining the 6 million data points from the latest Census of Agriculture, we used typology to further explore the demographics of who is farming and ranching today," said NASS Statistics Division Director Hubert Hamer. "What we found is that family-owned businesses, while very diverse, are at the core of the U.S. agriculture industry. In fact, 97 percent of all U.S. farms are family-owned."

The 2012 Census of Agriculture Farm Typology report is a special data series that primarily focuses on the "family farm." By definition, a family farm is any farm where the majority of the business is owned by the operator and individuals related to the operator, including through blood, marriage, or adoption. Key highlights from the report include the following five facts about family farms in the United States:

Five Facts to Know about Family Farms

1. **Food equals family** – 97 percent of the 2.1 million farms in the United States are family-owned operations.

2. **Small business matters** – 88 percent of all U.S. farms are small family farms.

3. **Local connections come in small packages** – 58 percent of all direct farm sales to consumers come from small family farms.

4. **Big business matters too** – 64 percent of all vegetable sales and 66 percent of all dairy sales come from the 3 percent of farms that are large or very large family farms.
5. **Farming provides new beginnings** – 18 percent of principal operators on family farms in the U.S. started within the last 10 years.

"Whether small or large - on the East Coast, West Coast, or the Midwest - family farms produce food and fiber for people all across the U.S. and the world," said Hamer. "It’s due in part to information such as this from the Census of Agriculture that we can help show the uniqueness and importance of U.S. agriculture to rural communities, families, and the world."

The 2012 *Census of Agriculture Farm Typology* report classifies all farms into unique categories based on three criteria: who owns the operation, whether farming is the principal operator's primary occupation, and gross cash farm cash income (GCFI). Small family farms have GCFI less than $350,000; midsize family farms have GCFI from $350,000 to $999,999; and large family farms have GCFI of $1 million or more. Small farms are further divided based on whether the principal operator works primarily on or off the farm.

To access all the data products from the Census typology report, including *Highlights*, infographics and maps, visit www.agcensus.usda.gov.

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**MG’s Advanced Training**

All class descriptions and registration links can be found at:

[https://extension.umd.edu/mg/advanced-training](https://extension.umd.edu/mg/advanced-training)

**August**

**Washington County**

Topic: Ornamental Plant Diseases  
Location: Western Maryland Hospital Center (Hagerstown)  
Presenter: Dr. Dave Clement

Date: August 12  
Time: 10:00am-3:00pm  
Registration Fee: $35.00  
Registration Deadline: August 5

For more information and to register:  

**September**

Washington County – Topic: **Ask a MG Practicum** – September 15  
Location: TBD – **Master Composter** – September

Prince George’s County – **Community Gardening** – October 1

Washington D.C. – **Garden Tour of United States Botanic Garden** – Date: TBD

Carroll County – **Beginning Native Tree Identification** – Date: TBD

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Winter 2015

Carroll County - Winter Native Tree ID – Date: TBD
Additional information will posted at the following site in early August

Alicia the state coordinator for all Master Gardener Advanced Trainings will answer any question you have at aliciafb@umd.edu

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<th>Recipe</th>
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<td>Peaches</td>
<td>Salsa</td>
<td>So Easy to Preserve pg 74</td>
<td>8/20 12pm-3pm</td>
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<td>Sept</td>
<td>Tomatoes</td>
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<td>Butter</td>
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<td>11/6 12pm-3pm</td>
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For information call Harford Co. Extension 410-638-3255; Or register online at http://gieipihc.eventbrite.com

August Calendar of Events

August 6 – Thursday evening 7 pm               Monthly Meeting  7 pm HCEO
Speaker: HdG Maritime Museum Director
Environmental Center

August 27- Thursday; 10 am                  Planning Meeting

August 19  Daytime Study Group                10 am; HCEO

August  NO Evening Study Group

August 27 – Steering Committee Meeting       10 am HCEO

THE MARYLAND MASTER GARDENER MISSION STATEMENT

The Maryland Master Gardener mission is to support the University of Maryland Extension by educating Maryland residents about safe, effective and sustainable horticultural practices that build healthy gardens, landscapes and communities.

The University of Maryland, College of Agriculture and Natural Resources programs are open to all and will not discriminate against anyone because of race, age, sex, color, sexual orientation, physical or mental disability, religion, ancestry or national origin, marital status, genetic information, political affiliation, or gender identity and expression.
Farm Fair 4-H Judging
Marlene Stamm and Linda Masland
Assistant Mary Sporre

HdG Farmer’s Market
Don Horton, Marlene Butler, Mary Greveris and Fred Wolfe

Edgewood Arsenal Youth Center
The Garden Club

Farm Visitation Day at Keyes Creamery
Catherine Herbert

Edgewood Lakeside Village
Herb containers and Ellen Haas in lower corner

MG’s Caught in Action
July 2015

Farm Fair 4-H Judging Assistant
Wally Chaillou