



The Official Publication of the Master Gardeners of Ocean County Inc. Produced in cooperation with Rutgers Cooperative Extension Service

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**Master Gardener Community Garden...
 Helping to feed those in need**

The Community Garden is wrapping up its 2018 season with the harvest of 15 pounds of Leeks, pulled on November 19. Leeks are traditionally harvested after the first frost of fall. It is usually our last crop of the year but Rich's herbs and the kale are still going strong! The leeks, along with 2 pounds of kale and 2 pounds of herbs were delivered to St. Luke's food pantry in time for



Noreen Baris showing off an armful of Leeks harvested at the community garden.

their annual distribution of Thanksgiving turkeys and fixings. It was all very much appreciated, Speaking of appreciation - I would like to thank everyone who helped out in the community garden this year! This includes Margaret Schaad, Tony Palmucci, Kathy D'Antonio, Ron Rooberg, Beth Clerval, Christine Miick, Carol Baran, Teresa Hetzel, Joe Scutro, Carmen Ciallella, Steve Rehberger, Richard End, Gina Cuozzo, Jim Digney, Dawn Friesen, and Rosemary Lillis. You were all a joy to work with and I hope you come back next year!!

Continued on page 12

President's Message by Jim Digney



Twas the night before a master gardener meeting and all through the Ag Center all the creatures were stirring and mostly the ticks. The minutes were sent out with care in the hope that the MGs would soon be there. The MGs were cleaning tools in the shed while visions of spring danced in their heads. When out in the Display Garden arose such a clatter, we sprang to the windows to see what was the matter. What to our wondering eyes did appear but a groundhog romping through the garden with cheer. With family in tow he whistled and called them by name, now Muffin, now Puffin, now Fluffy and Sail, on Whiskers, on Violet on Precious and Dale. As the leaves that before the hurricane fly, they devoured the flowers and the weed called Joe Pye. His droll little mouth was drawn up in a smile; the fur on his chin was gritty and vile. He was chubby and plump a right jolly old hog, I laughed in spite of myself when he tripped over a log. He spoke not a word but went straight to work, tearing and chewing, then turned with a jerk. He started to dig a hole and got dirt on his nose, in the hole they all jumped all fingers and toes. But I heard him exclaim as he dove out of sight, we'll be back here again night after night.



Happy holidays to all and to all a good night!



Gardening Journey-

By Susan Emhardt-Servidio



I can't believe the end of the year is almost here. Where did the season go? As we prepare our gardens for winter, I am gearing up for 2018 annual reports and next year's educational events and RMG projects!

Fourth quarter (final) hours are due December 14, 2018 at 3:00pm, so don't forget to log in those hours you may have done since October! Those who need an extension and have not contacted me please let me know. The extension would be through March 31, 2019 to complete 2018 hours to remain a RMG.

Clara La Parch (2006) has decided to step down as Display Garden Chair. Thank you, Clara, for more than 8 years of your dedication and hard work in the Display Garden. The garden wouldn't be what it is today without your guidance.

The final speakers are being scheduled for the 2019 RMG Intern Class. We have 12 people registered for the class so far. Residents have until December 14, 2018 to register.

I have thirteen RCE day/evening gardening programs scheduled this season. I still need a speaker for Deer Resistant Plants on June 13, 2019 at 1:30pm, and speakers for Rose care on Wednesday, March 6, 2019 at 6:30p, also Thursday, September 19, 2019 and Tuesday, October 22, 2019 evening programs, topics not chosen yet. If you have an interest in speaking please let me know.

As mentioned at the October RMG general meeting, plans are in motion for RMGs, in conjunction with Paul Kurtz of the NJ Department of Agriculture, to initiate an assessment of stands of *Ailanthus altissima* (Tree of Heaven) in high traffic areas in Ocean County. With the volunteers' assistance, we hope to identify and monitor areas for the invasive Spotted Lantern Fly species to help deter the spread of this agricultural menace in New Jersey. I have the following volunteers: Berry J., Alison D-S. Bart M., Dee H., Susan Riis, Cheryl C., Rita C., and Rosemary M. As I am doing research for this project, I realize how big a task this may be, so I can use 7 more volunteers. I will be on scouting trips as well. Please let me know if you are interested.



Continued on next page

Gardening Journey-
By Susan Emhardt-Servidio cont.

As to what is involved with volunteering, this is what I have so far:

1. Training- (Dates to be determined)
 - a. How to identify tree of Heaven- Winter and spring/summer
 - b. Handouts, videos
 - c. Field trip to areas
 - d. Proper outdoor clothing and tick protection
2. Areas to scout
 - a. Contact County and towns Parks and Recs
 - b. Contact county, twps. and city's Shade Tree commissions.
 - c. Contact Environmental committees in town
 - d. Ask if they know of any stands of Tree of Heaven
 - e. Start in high traffic, touristy visitors area
 - f. Organize scouting trips for weekends
 - g. Get maps of areas and make grids
 - h. Need GPS readings for stands of Tree of Heaven
 - i. Mark on maps
3. Look for symptoms and signs of SLF
 - a. Report if any found

Many new and exciting things on the agenda for 2019, so join in, get involved and make a difference!

Enjoy your holidays with family and friends.



I·M·P·O·R·T·A·N·T

December

December 6 - Holiday Party (no meeting), prepay, see notice

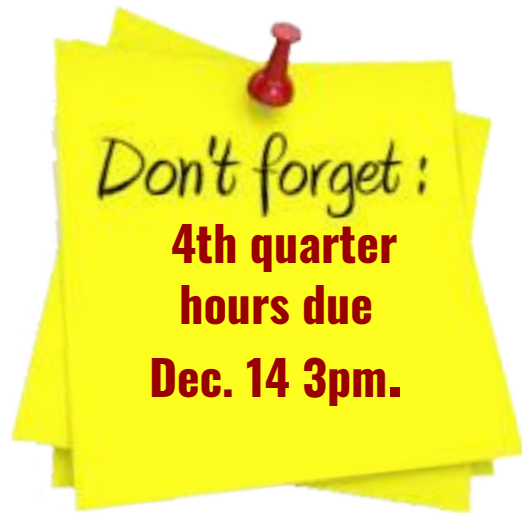
December 8 - New Castle trip, full

December 12 - Greenhouse Informational Meeting 10 - 12
at the Ag Center

December 14 - HOURS DUE for 4th quarter

December 19 - Board of Directors meeting, 9:15
Executive Committee meeting, 10:30

December 25 – Office closed



January 2019

January 1 – Office closed

January 3 – General Meeting, 10am

January 7 - Greenhouse Plant Science

January 16 - Board of Directors meeting, 9:15
Executive Committee meeting, 10:30

January 21 – Office closed

January 22 – Orientation of new Intern class

January 7, 10, 14, 17, 28 - Greenhouse Lectures See pg.10

Reminder

NEW CASTLE TRIP SATURDAY 8 DEC 2018

SCHEDULE:

BUS DEPARTS: Agricultural Center,
1623 Whitesville Road,
Toms River, NJ 08755

8:15am BOARDING
8:30am DEPARTING

BUS DEPARTS: New Castle

4:15PM BOARDING
4:30PM DEPARTING FOR HOME



Charlene's Corner By Charlene Costaris Non-Vascular Plants December 2018



de.Benutzer:Olivier_S Wikimedia Commons
A hornwort, *Phaeoceros laevis*

Non-vascular plants are intriguing, confusing and a little hard to believe. We are so accustomed to the way “normal” vascular plants behave and reproduce that it is hard to grasp the structure and reproduction of non-vascular plants. It requires us to turn our thinking upside down and inside out. Everything they do is analogous to vascular plants, but it is all different and backwards.

The non-vascular plants are also called “lower plants”. Because they don’t have a vascular system, they can’t grow very big, so they’re physically smaller and lower-growing

that vascular plants. However, “lower plants” refers to non-vascular plants being more primitive, less highly evolved, and having less specialized tissue than vascular plants.

The non-vascular plants as a group are called bryophytes. That used to be a taxonomic term, but it has been demoted to an informal but useful name. The bryophytes include mosses, liverworts and hornworts. The hornworts are mostly tropical, so we don’t see much of them here. Moss is all over, of course, and liverworts are more common than we know, since many liverworts are misidentified because they look a lot like moss. One liverwort in particular is so common as to be a weed in nursery and greenhouse production. The weed is one of the liverworts that look like green ruffles on the surface of the soil or growing medium.

The bryophytes have no true roots, stems or leaves; no stomates, cuticles, flowers or seeds; and no phloem or xylem. Nutrients and metabolites like sugar and hormones move into and within the plant by osmosis, by diffusion from cell to cell, and by streaming of the liquids within the cells.



Oregon State University
Liverworts growing as a weed
in a nursery container.

Charlene's Corner Continued on next page

Some of them have tissues that provide some water conduction, but it is not efficient enough for them to move water very far, so they tend to be no more than a few inches tall. Nothing as big as an oak tree, or even a marigold.

Bryophytes live in extreme environments like deserts and tundra, but because of their inability to conduct water efficiently, the bryophytes tend to grow in shady, wet, humid conditions so the plant cells can absorb moisture and nutrients directly from the surroundings. Think of sphagnum moss growing in the edge of a stream. When they dry out, the bryophytes shrivel up and go dormant, but they are mostly able to survive and take off again when moisture returns.



Reddit.com
A floating liverwort showing rhizoids

Also because they don't conduct water, bryophyte structures tend to be thin. Each leafy structure may be only one or a few cells thick, the better to absorb water into each cell.

Bryophytes do not have roots, but they have root-like hairs called rhizoids that serve as holdfasts to keep them anchored in place. The rhizoids are thin and not very long, which is why it is easy to pull up moss.

There are no flowers on bryophytes, which brings us to the part of the story I find the slipperiest to hold onto. In people and in higher plants, the body you see on a daily basis has two sets of chromosomes. We humans get 23 from our mothers, and 23 from our fathers. When the sperm (23 chromosomes) fertilizes the egg (23 chromosomes) the resulting baby has 46 chromosomes and will for its whole life. Same with higher plants. The pollen has half a set of chromosomes, which unite with the half-set in the egg, to form the seed that grows into the plant with a full set of chromosomes. All that feels normal and immutable. It is just the way things ought to be.

But here come the bryophytes, and they have to be different. Take the liverwort for example. The liverwort plant you see has half a set of chromosomes. When it is time to reproduce, the surface of the "leaves" grows separate structures that produce sperm and eggs. Instead of pollen, bryophytes produce swimming sperm, which need a film of water to swarm over



EncycloPetey Wikimedia Commons
A leafy liverwort can be confused with a moss

to fertilize the eggs. It's another reason bryophytes live in damp, watery environments. After union of the sperm and egg, up grows a small structure with a full set of chromosomes. You might have a whole field of leafy, ferny liverworts and mosses, and the only part that is analogous to a human body or a daffodil plant is that little small bit. (In the case of mosses, it may be a small stalked capsule on the tip of the moss plant.) And, as a side note, it's the only part of the bryophyte that has stomates. It does not last long, either. Just long enough to divide and redistribute the genes into spores with one set of chromosomes (got to have the sexual division part or bryophytes become evolutionary dead ends, but they don't waste much time over it). The spores float off in water, or are forcibly ejected, to find a new home. They germinate and grow into a new plant with half a set of chromosomes, and the cycle starts over.



With their dependence on a film of water, sexual reproduction in bryophytes can be a chancy business. To compensate, they are quite good at asexual reproduction. Bits of moss break off and land in another spot, and the plants grow and spread. Some mosses and liverworts produce small bodies called gemmae, housed in little splash cups. When struck by a drop of rainwater, the gemmae splash out to spread and grow into new plants. Another oddity is that some mosses have evolved dwarf male plants a few millimeters long, which grow on female mosses so the sperm can more easily swim to an egg.

A few miscellaneous odd notes in closing:

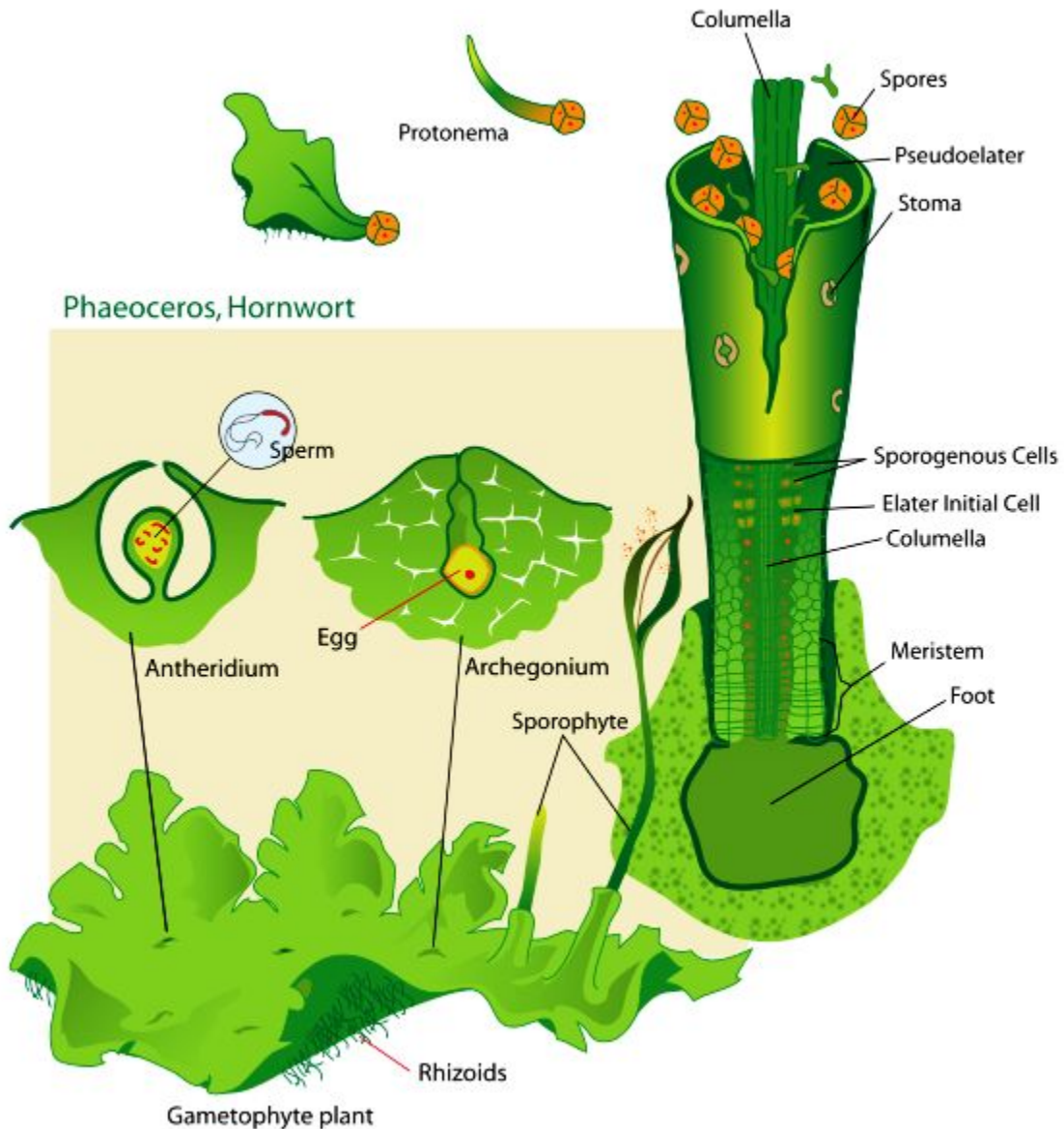
The name "liverwort" reflects the lobed, liver-like shape of the leafy structures. Because of the resemblance, people used them to treat liver problems.

Humans have found other uses for bryophytes through the ages. Sphagnum moss contains large empty cells that can hold water, helping the plant survive through drought and making it useful in horticulture as a growing medium and soil additive.

Being absorptive, sphagnum served as diaper material in former times. In addition, sphagnum has antiseptic properties and doctors used it to pack wounds right up into World War I. Because of the empty cells, dry sphagnum holds a lot of air, which made it useful as insulation.

There are at least two vascular plants called liverwort. One is a ferny looking aquarium plant and the other is *Hepatica*, a genus of flowering plants in the Buttercup family with leaves that are also lobed like a liver.

There are about 12,000 species of mosses and around 9,000 species of liverworts. They fill many ecological niches, including forming peat bogs, which create habitats for sedges, ericaceous shrubs, and orchids.





Committee reports



Greenhouse

Linda Convey, Mary Townsend

December 12: 10-12 Ag Center: Greenhouse Informational Meeting.
Helps MG's and Interns decide if they wish to join the 2019 GH Team.

Greenhouse Lectures

Monday January 7th: Greenhouse Plant Science. An attempt to provide a deeper understanding of plant structure, function, and growth. And our role in plant growth.

Thursday January 10: GH Temperature and the effects of temperature on plant growth and development. Followed by a Related Video.

Monday January 14 : Light. All light is not created equal. Followed by a Related Video

Thursday January 17: Soilless media, Watering, Fertilizers, Water Quality And Ph.

Monday January 28: Greenhouse Sanitation, Common Greenhouse Insects And Their Control. Overview of Seed Starting.

All lectures are at the Ag Center from 10-12.

Educational Hours: 2 per class

Light Refreshments Provided.

Although improbable: Lecture content, dates, and times subject to change.

Happy Holidays.





Committee reports



Helpline Services

Peggy Mott, Silke Stutz

Helpline Services Committee met on November 8th. The meeting summary, 2018 Annual Report and Goals for 2019 are posted on the MGOCINC website under Helpline Committee reports

For 2018 there were 491 worksheets completed. There were 435 worksheets in 2017.

Dates are set for Veteran training (February 22nd) and for 3 small workshops scheduled for May, June and July.



The Helpline Services Committee welcomes new members.



Community Outreach Events

Peggy Mott, Barbara Greico

Community Outreach Committee met on November 15th. The meeting summary, 2018 Annual Report, 2018 Event Summaries and Goals for 2019 are posted on the MGOCINC web site under Community Outreach Event Committee reports

We will host a Community Outreach Event workshop on March 13, 2019 from 10 AM to Noon at the Ag Center auditorium.

We welcome new members!

RMGANJ State Board

Suzanne Keane

We met Nov. 6. Discussion centered around minor issues at the Fall Conference event and the evaluation results. Some conclusions were that Eventbrite will not be used next year for a variety of reasons. The format will be changed again. Evaluation comments: Many favored the speakers, but not necessarily their subject matter or the length of the talks. Long-time attendees preferred the Break-out sessions we had a few years ago. Many preferred to have some kind of interaction with other county MGs in order to learn from their successes. We had 61 responses from first-time attendees to whom it was all new. Complaints centered around ‘parking lots’, ‘sign-in table’, Barnes & Noble book selections or lack of same. Note: We have almost no control over Barnes, so it’s always a question mark. Also, the awards ceremony needs to be reinstated in some way. We wish to thank our Ocean County MGs and Interns who attended with us. In the Coordinator’s report, Jan said that there will be more Rutgers-based classes offered statewide in the future. All MGs and Interns will receive the same basic information. Before we adjourned, the president encouraged us to participate in the International Conference in July.



Committee reports



IPM Committee

**Vinnie Delia, Georgina Price,
Phyllis Delesandro**

The Committee Chairs met with OCMG Coordinator Susan Emhardt-Servidio on November 9. The purpose of the meeting was to go over hour requirement changes that are scheduled to begin in 2019. Master Gardeners attending IPM Workshops will now earn hours under the “other” column or education as per coordinator.

For the IPM Committee to offer Diagnostic hours, plans will need to be made for the public to bring samples to an IPM Clinic for diagnoses. Diagnosis clinics can be held at the Ag. Center, OC libraries, retirement communities, or garden clubs. OC Master Gardener participation at the clinic’s will be limited to 5-15 people depending on the venue.

Obviously, planning will be required to facilitate IPM Clinics, and schedule Master Gardeners to participate in clinics. The Committee has been meeting and preparing to take on the challenge, and grow into it. Most important currently is to calibrate the Committee agenda amongst the Chairs and Committee members. This will include structural and organizational changes within the IPM Committee that will be resolved by the first of the year. Happy Holidays, wishing all OC Master Gardeners a happy healthy New Year.

IPM

THE SUCCESS BEHIND PLANT HEALTH CARE



Community Garden

Noreen Baris, Sue Priolo, and Rich Marine

Continued from Front page -

Gleaning opportunities were fairly poor this year due to the weather. We did manage to gather 4,491 pounds of produce which was delivered to food banks and pantries all over Ocean County. Much gratitude and thanks to the following people who helped: Jim Digney, Bernie Rehberger, Cindy Turner, Rich End, Margaret Schaad, Sandy Pultowski, Ron Rooberg, Kathy Vivona, Chuck Lableson, Nancy Buzby, Karla Messineo, Gina Cuozzo, and Margaret Altieri.

Final donation totals will be in next month's Newsletter.



Committee reports



Cuisine Demonstration Gardens

E. Berry Jones, Chair Karen Kelly Thomas, Caryn Muskus Co-Chairs

The final clean-up at Cuisine is finished and the raised beds and large pots are covered. Vinyl poultry fencing has been installed. Perennial herbs will be used all winter.

On October 29th, a workshop was given in the proper planting of garlic; hardneck German white and purple striped garlic were planted in one raised bed. These will overwinter and be harvested next July.

We finished our season with a lunch, prepared by the staff at Cuisine. Thanks to all the great help from the MGOCs this year! Whether you helped for just a day or two, or are a regular volunteer, the garden couldn't exist without you.

THANK YOU!



Easy Saltine “Crack”er Candy



Cooking spray
35 to 40 saltine crackers
2 sticks (1 cup) butter
1 cup light brown sugar
8 ounces semisweet chocolate chips
(about 1 1/3 cups)
Assorted toppings (optional)



1. Preheat the oven to 425 degrees F.
 2. Line 1 large or 2 small jelly-roll pans with aluminum foil, spray with nonstick spray and arrange the saltines salt-side down in a single layer.
 3. In a medium saucepan, melt the butter and brown sugar together and boil until it turns a caramel color, a few minutes.
 4. Remove from the heat and pour over the crackers, covering them evenly. Put the jelly-roll pan into the oven and bake for 3 to 5 minutes, or until just bubbly, watching carefully.
 5. Remove from the oven and pour the chocolate chips over the crackers. When the chips melt a bit, spread them over the crackers with a knife. Add toppings if you choose.
 6. Transfer the pan to the freezer for 15 to 20 minutes, or until completely cold. They will form one big sheet. Break up into pieces. Store in an airtight container.
- *I like mine just plain, but you can top with whatever your heart desires! Just sprinkle over the melted chips and then freeze.*
 - *Substitute white chocolate to completely change it up!*





Visit Our Website

<https://www.mgocinc.org>

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'TIS THE SEASON FOR GIVING

Phyllis Delesandro is collecting supplies for Destiny's Bridge as our philanthropic endeavor this year.. This is the homeless camp that used to be on Chambers Bridge Road in Lakewood until they were removed. They are now in an organized (still outdoors) camp in Howell. There is a minister that looks after them, and they are in desperate need of supplies to keep them warm this winter. Please consider bringing something to the party to donate to them. We will have boxes set up . The following is needed:

- Blankets/sleeping bags
- coats
- warm clothing
- Gloves
- Wool or thermal socks
- Warm hats
- hand and toe warmers
- Thermal underwear
- wash cloths and towels
- Tarps, 10' X 12' or bigger
- Walmart gift card

Used items are fine as long as they are clean and in good repair.
Thanks everyone!!

"As I was doing the weekly distribution for the homeless, and poor this past week at the Town Square, a homeless man looked in the back door of my bus and said "Are there any more blankets?" As I looked at this poor man with his look of desperation, I turned to search the bus one more time to see if I had missed anything. "No." I told the man, "I'm sorry I don't have much this week, but I will try to have some more next week." As he walked away, my heart dropped knowing this was just the start of the cold, and bitter weather, and it would be a long time before we saw the warm sunny days of summer again."



~ Minister Steve Brigham, Nov. 14th 2018