

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

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2016-2017

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Congratulations!

MONDAY
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NEWS

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Ocean County Master Gardeners perform another memorable Graduation Ceremony.

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Don't Touch My
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MASTER GARDENERS OCEAN COUNTY





President's Message by Jim Digney

Happy Saint Patrick's Day! Cheers to MGOC, INC

So it's that time of year when our gardens are coming out of their winter slumber, and we need to start getting all of our plants and shrubs ready for our plant sale. Over the next couple of months Ocean County Park needs all the help that you can spare to get our shrubs and perennials plant sale ready. There will be cleaning, pruning, transplanting and propagating from now until May. A lot has to happen before the actual day of the plant sale. It's a big job and your help is needed so that we can have a successful sale. The Wright House will also be needing volunteers to get our veggies from seedlings to robust plants that our shoppers can't resist. The plant sale is vital to our financial health and it truly is all hands on deck, so I implore you to volunteer an hour here and an hour there so that we can be successful. Everything we do and grow at the park is geared to the plant sale with the exception of the Community Vegetable Garden.

Speaking of the Community Vegetable Garden, it's time to get the beds ready and to start planting. If you can spare some time at the garden for cleanup or help planting it will be very much appreciated. Everything grown in the Community Garden is given to charity. A noble quest indeed that I'm sure you would like to be a part of. The Cuisine Garden in Little Egg Harbor is also starting up and also needs many hands to get the beds ready and planted. It's located in a beautiful setting and after a few hours of hard, but satisfying work, you can reward yourself with a beer and a burger in the Cuisine on the Green restaurant, all the while enjoying the company of your fellow workers. What can be better than that? While we're on the subject of gardens, let's not forget the Display Garden. It is our showcase! It's what our clients first encounter when entering the building. The garden reflects on us so we need to maintain it so it reflects brightly. Work parties are there on Tuesdays every other week. See if you can save a day or two on your calendar to lend a hand. It feels good knowing you had a hand in helping to present our garden to the enjoyment of our clients and ourselves.

Community Information Tables will soon be scheduling events that organizations have asked us to be a part of. Many of these events are on Saturdays and so it's perfect for members who have difficulty getting to things during the week. It's a great volunteer



President's Message Continued Page 3

opportunity to get out in the fresh air and show off our organization to all who stop by our table. There's always food at these events and many times there will be a band playing and it's just a wonderful way to spend a day outside. When the schedule comes out, take a peek and see which one you might like to go to.

Education Outreach is another area where we need more volunteers. If you enjoy designing gardens and landscaping, and working with youth, this is the committee you've been looking for. They do fun things with students in the school which is not only fun and enjoyable but extremely satisfying. And who knows, maybe because of one of our programs, some of these young students might be future Master Gardeners. Our core mission is to educate the public and this committee does that very well.

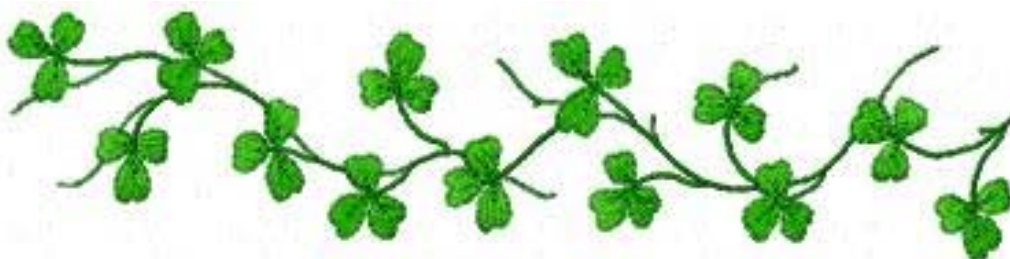
Speaking of educating the public, that is exactly what the Speaker's Bureau is doing. Committee members go to garden clubs and nonprofits to give talks and demonstrations and power point presentations. The organizations we visit are very appreciative of us being there and are very enthusiastic. Again, it's a very satisfying experience when they come up to you afterwards and tell you how much they enjoyed your talk.

And, of course, our big 3 is opening up. From now through October the helpline and tick lab will need your help to answer phone calls and identify ticks and maybe even a few other bugs.

I know I'm asking a lot from you, but we are 180 strong and this is why we joined this wonderful organization and signed up to be volunteers. And to be sure, it's not really work, but more like an enjoyable pastime. It's a good feeling sharing what we have learned with others, and lending a helping hand, and knowing it makes a difference.

Don't be a Master Gardener in name only. Join a committee or help in our gardens, enjoy time with and have fun with like-minded people. Volunteer where you can, enjoy what you're doing, and thank you.

Jim Digney



March 2017

- March - Tues. & Thurs. Intern Classes continue
- March 2 - General Meeting (after Intern class), 1:15,
Soil Compaction Report, given by Dr. Steve after the meeting
- Mar. 9 - Intern Class in Freehold
- March 15 - Board of Directors Meeting, 9:15
Executive Committee Meeting, 10:30
- March 15 - Philly Flower Show Trip, 12:30, Meet in parking lot
- March 22 - IPM workshop, OCP, 1-3p.m.

April 2017

- April 4 - RMGANJ State Board meeting
- April 5 - IPM Workshop,
Mushroom Workshop, Ag. Center, 6:30, pre-registered only.
- April 6 - Helpline Training 9:30
General Meeting, 1:15, Afterwards Plants for the Pl. Sale
- April 11 - Class to OCP
- April 13 - Class to Cuisine Garden
- April 14 - Office Closed
- April 19 - Board of Directors Meeting, 9:15
Executive Committee Meeting, 10:30

DIAGNOSTICS POWER POINT MAY 23 10AM - 12 PM AG CENTER

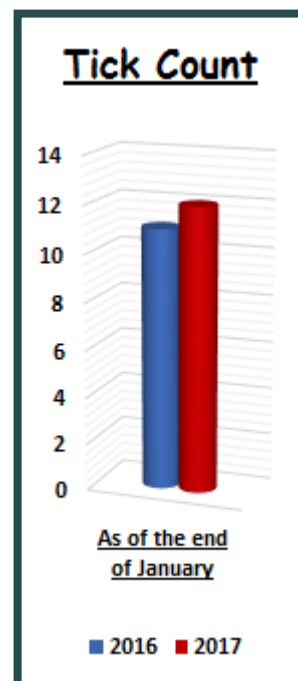
DIAGNOSTICS ROUND TABLE JUNE 20 10-12 & 1-3 PM LIMITED TO 20 PEOPLE, SIGN UP WITH DEBBIE



The Following Board of Director Seats are up for Election

- Second Vice President
- Recording Secretary (Executive Committee)
- Corresponding Secretary
- Trustees (two positions)

If Interested See Page 8 for Details



Each Month we will be posting the amount of ticks Id and comparing the totals to last year

Gardening Journey – March

By Susan Emhardt-Servidio



Congratulations 2016 Graduates!! The Lyme Ticks need to go on the road. RMGs sure do know how to entertain. If you all keep accruing so many awards, the luncheon must find a new venue! Wonderful job to the decorating committee and all those who brought goodies! Thank you, Debbie, Teresa and Kelly for helping with the food. (Note for next year, more salad, gluten-free and nut-free foods! I apologize for my oversight).

Below is my summary of the RCE Horticulture Dept. events and statistics of 2016. This is one of the reports I submit for the County.

Horticulture touches all parts of people's lives, as have our outreach programs this year. The RCE of Ocean County offered many new experiences to and for our residents. Along with the volunteers in the Rutgers Master Gardener program, we educated and donated all over the county. Our efforts encompassed culinary gardens, gleaning produce, evening lectures, school programs, veterans' lecture series, school programs and a bus trip to Rutgers Gardens in New Brunswick.

The 2016 Master Gardener Annual Plant Sale, run solely by the volunteers of Master Gardeners of Ocean County, Inc., a 501(c) 3 non-profit entity, was a complete success despite the rain and 50°F weather of Mother's Day weekend. The Master Gardeners (MG) produce many of the plant sale offerings from seed or cuttings at the Ocean County Park Master Gardeners Gardens. This year saw over 750 patrons procuring annuals, perennials, and shrubs. The MGs volunteered time and hard work to make the Plant Sale such a success. The proceeds fund the projects MGOOC, Inc. provides in conjunction with the Rutgers Master Gardener program. The MGs' commitment and generosity keep the RMG program going strong.



In 2015, Rutgers Master Gardeners (RMGs) designed and built the raised beds, which they maintained and harvested 350lbs of edibles for use by the Ocean County Vo-Tech School's Culinary Art students at Ocean County's Atlantis Golf Course in Little Egg Harbor Twp. This year, 2016, was the first full year of operation, and the 'Cuisine Team' of RMGs, led by Berry Jones, Betty Benson and Karen KellyThomas, more than tripled last year's harvest with a total of 1,037lbs of fresh organically grown edibles.



Once the pesky groundhog was successfully excluded from the garden, the RMG Community Garden at Ocean County Park in Lakewood also had a good year. The Community Garden team harvested 617.5lbs of produce. The RMGs worked with Farmers Against Hunger again this year to glean excess produce from NJ farms and orchards. Under the unflagging leadership of Noreen Baris and Suzan Priolo, the RMGs gleaned 14,914.25lbs of produce that would have otherwise gone to waste. The gleaning efforts combined with the Community Garden harvest, harvests from RMGs personal gardens and a non-perishable food collection, the RMG volunteers donated

Continued from Page 6

an unbelievable bounty of 15,889.25lbs of food to area food banks and pantries. What a wonderful effort to feed our county's hungry.

This past year saw a rise in educational events offered to county residents and asked for by local organizations. RCE offered five evening garden lectures/workshops held at the Ag Center for over 100 county residents to attend. The RMG Speakers Bureau requests increased as well.



Fifty-eight programs were given to residents, including those offered at Stafford Library in Manahawkin and at the VA Clinic in Brick. The VA Clinic series of talks offered veterans 10 lectures on various garden topics and the RMGs enjoyed the chance to give back to the veterans who have risked so much for us all. School programs were initiated this year; the participating schools

included Pinelands Regional Jr. High school in Tuckerton, Kangaroo Court Preschool in Tuckerton, Lakehurst Naval Base School in Lakehurst and East Dover Elementary in Toms River. In all, sixty-eight programs were given, and 2054 youths and 2105 adults attended these successful programs.

The lectures and programs didn't stop with educating just our residents. The horticulture staff, RMG Educators and outside speakers gave forty-two programs at the Ag Center to train the twenty-eight RMG program interns and to keep the one hundred and forty-three certified RMGs up to date with some of the newest gardening and IPM practices. The volunteers gave over 20,000 hours of service this year to the RMG program and to Ocean County.



The RMGs and RCE staff responded to 7768 residents with garden issues, including 1164 calls to the RMG Helpline, 2707 horticulture related phone calls to the Ag Center, 1592 emails and 2305 walk-ins. Clients purchased 222 Rutgers Soil Test Kits and the RMGs conducted 105 soil pH tests. RMG volunteers and staff identified 1390 ticks brought in to the office; 904 of these ticks were Lone Star ticks, 343 ticks were American Dog ticks and 143 were Black-legged (Deer) ticks. A concentrated effort was made this year to educate residents that all ticks can potentially carry diseases. While Lyme disease is a major concern, it is not the only one.

In June, RCE staff organized a bus trip to Rutgers Gardens in New Brunswick. Travelers enjoyed a guided tour of the gardens and sampled the offerings at the on-site Farmer's Market. Also in June, the RMGs organized the Toms River Library event. The volunteers' time and planning showed in the beautiful array of plant material grown and container gardens planted. The RMGs gave six presentations around the central theme of 'Circle of Life in the Garden'. The Sunflower workshop was a hit with adults and children alike as they could 'plant and take' their own sunflower plant. The specialty Rutgers 250 tomato was grown by the volunteers and given away to all attendees. As a bonus, the container gardens were used to kick-off the installation of the Downtown Toms River Sculpture event. The container gardens augmented Brian Hanlon's bronze sport and public figures sculptures, and the RMGs watered and maintained these containers throughout the summer long exhibition.

Continued from Page 7

Sadly, the RMG program lost two active members in 2016; Ted Behr, class of 2007 and Patricia Santenello, class of 2014. The horticultural staff and the RMGs extend our sympathies and want to thank the families of these members for supporting Ted and Patricia during their years of volunteered service to the Rutgers Master Gardener Program and to Ocean County.

Photos:

MCOG, Inc. 2016 Plant Sale

OC Culinary Arts Garden in Little Egg Harbor.

RMGs gleaning sweet potatoes at Hallocks Farm in New Egypt

RCE Evening Tropical Workshop

RMG Diagnostics Class



RMGs of Ocean County: Please Note

The Following Board of Director Seats are up for Election

- ⇒ Second Vice President
- ⇒ Recording Secretary (Executive Committee)
- ⇒ Corresponding Secretary • Trustees (two positions)

If you are a certified member and are interested in running for one of these positions, please indicate your interest, in writing, to a member of the Nominating Committee no later than March 15.

The members are:

Marilyn Crespy, Chairperson

mccrespy@comcast.net

609-758-5877

Suzanne Keane

sukini@verizon.net

609-242-0356

Kathy D'Antonio

kathy.dantonio3@comcast.net

732-349-9258

Rich Marine

rmarine@comcast.net

732-573-1317

Sue Norman

sue597@comcast.net 609-

732-350-4205

Committee reports

Sunshine

Mickey Pulis / Roberta Quinn



Roberta will be taking care of all Sunshine duties from now until March 15th. Mickey will be out of state. People can call Roberta at 609-971-1542 or email her at rquinn55@comcast.net if a card needs to be sent.

HelpLine

Bruce Larsen, Peggy Mott

Spring is right around the corner and that means it is time to staff in the Helpline, responding to horticultural inquiries from the Ocean County public.

The hours for March and April 2017 are:

March 01-17, 2017: AM only: One Veteran

March 20-31, 2017: AM: Two Veterans; PM: One Veteran

April 03-14, 2017: AM and PM: two Veterans

April 17-28 and May 01-05, 2017: AMs are reserved for Mentors and their respective Intern

April 17-28, 2017: PM Two Veterans

Plant Sale Committee

Pat La Vigne, Alison Stellita, Diane Maiorano

There will be a plant sale meeting on Tuesday March 21st, at 2 pm.

We need to know if you were satisfied with the amount of space and setup from last year in order to plan for this year's plant sale on Saturday May 6.

We especially want to hear from the Greenhouse, WH & growing area leaders at the park to see how they feel about discounting the plants for RMGs after the plant sale ends at 1 pm. We discussed this at the last plant sale meeting, but many of you were at the grower's conference. We need everyone's input on 1. What will work best, 2. How to handle it, and 3. Whether or not your area wants to participate.

Hope to see you all on Tuesday March 21! Any questions or concerns please call or see us at the meeting.

Thanks so much for your cooperation.

Plant Sale Team 2017

Pat La Vigne, Co-Chair

Alison Del Rio-Stellita, Co-Chair

Diane Maiorano, Co-Chair

Pat Gorwood, Co-Chair



Committee reports

Education Outreach

Chuck Labelson

Georgina and Noreen have been busy bringing gardening to the students of East Dover Elementary school in Toms River. In September we kicked off the program with vermicomposting. A fifteen minute PowerPoint on decomposers was presented which highlighted worms. Three worm bins were assembled and sent off to the class rooms for the students to feed and maintain. The students were surprised to learn that worm pellets a.k.a poop was in soil in our gardens.

In October there was a thirty minute PowerPoint called 'Where Does Your Candy Come from?' During the assembly the students learned about ingredients in various candies and how the main ingredients in each candy can be traced back to a plant source. Props such as cocoanuts, chocolate nibs, sugar cane and corn were shown during the talk. A few students got to chew on sugar cane.

In November the students were introduced to the three sisters. A planter with corn, pole beans and squash was placed in the library. A fact sheet was given to the teachers to help explain why the Indians planted these three crops together.

In January a thirty minute PowerPoint assembly called 'Pass the Plants, Please' was given to the students. Students were introduced to the parts of the plant and their functions. When Noreen asked if anyone ever had roots for dinner, many replied "NO". When asked if they ate at McDonalds and had fries everyone yelled "YES". When she informed the students that they were eating roots there were gasps of surprise. We know potatoes are tubers but it got the message across. Next we dissected a pizza and traced the crust, sauce, onions, olives and even cheese back to a plant source. During lunch I went through the cafeteria. The students kept calling me over to tell me what part of the plant they were eating for lunch.

We are reaching approximately 700 students and teachers at each assembly. Imagine how many more can be reached if just one power point was given to the many elementary schools in Ocean County. PLEASE consider joining education outreach and help us plant the seed.

Committee Chair- Chuck Labelson

Article by Georgina Price



Committee reports

IPM

Vinnie Delia, Georgina Price, Phyllis Delesandro

Georgina Price and I welcome Phyllis Delesandro to our IPM Co-Chair team

If anyone has a spare, the IPM Committee needs a Microsoft Laptop for Phyllis to borrow.

The month started out with an IPM Power Point Presentation on February 1st, for 92 members of the Monmouth County Master Gardener Organization. The IPM presentation went so well, the Monmouth County M.G.'s invited us to hold an IPM hands on Workshop with them. That is scheduled on April 18th.

March 1st is upon us, Time to start charting Growing Degree Days for landscape. I began charting TR & Manahawkin for vegetables on January 1st. Georgina began charting the OC Park for vegetables on that date as well. Phyllis will be taking that responsibility over on or before March 1st We will be posting results on our Yahoo Website again this season as well as pest indicators, per the GDD's.

Georgina, Phyllis and I attended the February 7th Intern class where Mr. IPM in NJ, Rutgers Own, Steve Rettke presented his IPM Power Point. No matter how many times I attend Steve's Power Point, I always walk away with something new to add to our IPM program. Steve has given his permission, for us to use any information that he shared with the class that day.

On Wednesday February 22nd, the IPM Committee presented our new and revised IPM Power Point at the Ag. Center Auditorium 10am to 12 noon. Two hours of Edu was earned. On February 23rd a "Bonus" IPM Workshop was held at the NJ Dept. Of Agriculture Beneficial Rearing Lab, located in Ewing Twp. NJ. We toured the facility from 1:30pm to 3:30 pm. I will be sharing information about the tour at future IPM Workshops this season.



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Committee reports

IPM Continued from Page 11



This month's IPM Workshop will be held on March 22nd, at the OC Park from **1pm to 3pm**. The Workshop will offer .5 hours in Edu, and 1.5 hours of diagnostics. The workshop agenda, and afternoon hours, are modified due to it being early season, and less specimens to collect and diagnose. Also, the afternoon hours should not interfere with Greenhouse, Shrub Bed, Construction Projects and Community Garden activities at the Park, that take place in the mornings. Pre-registration is required via vcdelia@aol.com class is limited to 24. A waiting list will be generated.

Why limit attendance at some of the IPM Workshops? You know me, I'm a person of inclusion. I'd love to have an unlimited number. The reason we need to keep the numbers in check is because we need to provide opportunity for everyone to scout & diagnose. Our experience has shown, that anything more the three groups of seven or eight, leave people out of the diagnostic portion of the Workshop, because we only have a certain number of books and tables to crowd around.

It would be unfortunate if people thought that they didn't get a chance to participate, or that there just wasn't enough opportunity to scout and diagnose. It only takes one person to feel that the Workshop wasn't run right, or that they were disappointed in it due to overcrowding.

Also, there is so much oversight about hours to be aware of. Quality instead of quantity. Even the Diagnostic classes that Holly & Sue give have class size limits. I think we should follow that lead. So, sign up at vcdelia@aol.com as soon as you know when the next IPM Workshop is. It appears monthly on the Calendar page of this Grapevine newsletter.

Vinnie Delia, Georgina Price and Phyllis Delesandro OCMG IPM Committee

Speakers Bureau

Suzanne Keane, Kat Schaffer



We met Feb. 15th and discussed how to improve our presentations by considering who the audience is and if there are any specific issues they have in their gardening areas. A questionnaire the committee members answered by email will help with scheduling and avoid unnecessary email communications. Two new MGs joined our group. We hope to fill the request from the Brick VA again this year and have 32 additional talks scheduled. Should be a great year for us.

Committee reports

Cuisine Demonstration Gardens **Berry Jones, Betty Bentsen, Karen Kelly Thomas**

Happy end of winter! The MG Gardens at Cuisine on the Green had the first planning meeting on February 14th. We discussed the layout of the garden, how to rotate the crops and a possible starting date. This coming year we will again plant edibles which are organic and fertilized with compost. Additional herbs will be grown in a separate bed. We have a donation of a compost tumbler and two composted cages from a contact with a big box hardware store. We will be encouraging the culinary school students to use these.

Cold weather crops will be planted in March under a protective covering; these are easily maintained until the Cuisine team starts in April. Our first chores will be uncovering the raised beds, clearing any weeds and debris and spreading mulch. The Cuisine Demonstration Garden at Atlantic Golf Course in Little Egg Harbor is an outreach program and is open to all OCMGs. We meet Monday, Wednesday and Friday 9-12 throughout the growing season.



Carrots overwintered at Cuisine are ready to pick!

Wright House

Joan Haldane, Carmen Ciallella, Jerry Jellets

Volunteers!



Wright House Volunteers. If you volunteered last year in the Wright house and are planning to volunteer again this year please email Joan Haldane at jhaldane@optonline.net and let her know the days you are willing to work.

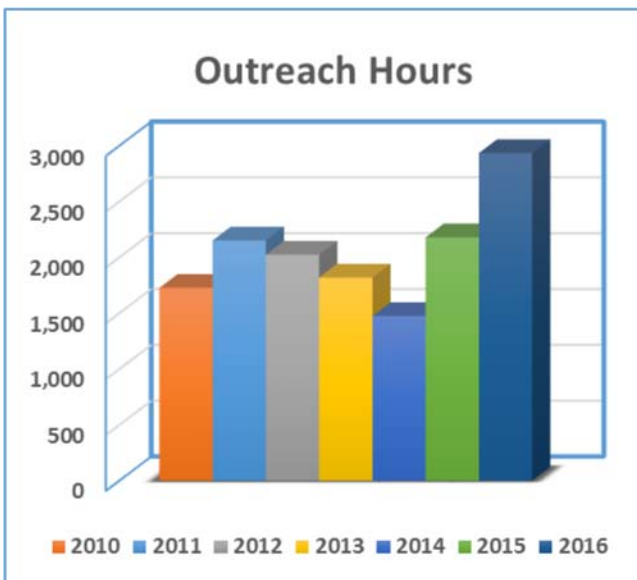
The Wright House is still in need of additional Volunteers. We need several additional volunteers who can commit to one day a week during the months of March & April. We also have weekend openings for those who may need to gain some hours on the weekend. We also need subs who can spare one or two days when we need you. If interested email Joan Haldane at jhaldane@optonline.net. Please let us know what days you can work or if you want to be a sub.

Committee reports

Membership

Marion Goldberg

<u>Master Gardener of Ocean County</u>		<u>2016 Year End Statistics</u>	
# of Members	Total Hours for the Year	Average Per Person	
138 Vets	17,719.00 Hrs	128.25 Hrs	
24 Interns	<u>2,307.00 Hrs</u>	<u>96.00 Hrs</u>	
162 Volunteers	<u>20,026.00 Hrs</u>	<u>123.5 Hrs P.P.</u>	
<u>Total Big 3 Hours for the Year</u>			
138 Vets	2825.25 Hrs	20.5 Hrs P.P.	
24 Interns	<u>1151.25 Hrs</u>	<u>48.0 Hrs P.P.</u>	
162 Volunteers	<u>3976.5 Hrs</u>	<u>24.5 Hrs P.P.</u>	
<u>Total Big 3 and Outreach Hours Combined</u>			
138 Vets	5467.5 Hrs	39.5 Hrs P.P.	
24 Interns	<u>1443.25 Hrs</u>	<u>60.0 Hrs P.P.</u>	
162 Volunteers	<u>6910.75 Hrs</u>	<u>24.5 Hrs P.P.</u>	
<u>Value of Services for</u>			
<u>Contact with O.C. Residents</u>	6,910.75 Hrs	x \$25	\$ 172,768.75
<u>Total Value for all Hours</u>	20,026.00 Hrs	x \$25	\$ 500,650.00



Tick Talk

By Tom Barnes & Kathy Gregitis

TICK MORPHOLOGY

Morphology: The study of the biology of form and structure of living organisms.
(Daniel Webster)

The body of a tick consists of the mouth parts called the *capitulum* or "false head", and a fixed thorax and abdomen. On the thorax and abdomen, a tough dorsal shield or plate called the *scutum* is located. It is the scutum that identifies the species of tick.

At the outer edge of the mouth parts are the *palpus*, which are used to position the flesh of the host. Next is the *chelicerae*, which is used to cut through the skin with rows of curved teeth, allowing the tick to hold fast to the host. The tick secretes saliva which contains a form of anesthetic, numbing the location of the bite.

The *hypostome*, located inside the chelicerae, is a hard straw-like tube which draws the blood from the host to the tick. A pump-like organ extracts water from the blood and excretes it through ports on the sides of the tick. These ports, called *spiracles*, are also used for respiration.

Next Month: Tick Morphology, Part II

AMERICAN DOG TICK

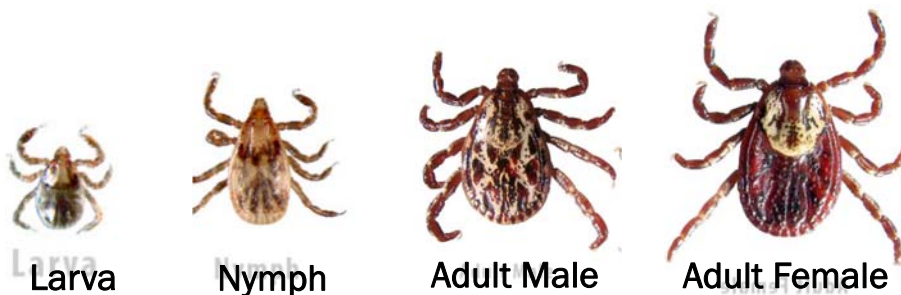
Demacentor variabilis

The American Dog Tick, which favors grassy locations, has four stages of life. However, it is only the adult stage that is usually seen. The nymph and larva stages feed on small rodents. Humans may walk across a field and never pick up the nymph or larva forms.

The adult female Dog Tick is generally 1/4" in length when unfed, and 1/2" when engorged. It is reddish brown in color. The scutum resembles a baseball infield, with white streaking, which does not go all the way to the margin.

The adult male Dog Tick is 1/4" in length, and is also reddish brown in color. On the male Dog Tick, the white streaking goes all the way down the margin. This tick also has eleven festoons.

The American Dog Tick has the shortest mouth parts of the three ticks found in our region. This tick can carry and transmit Rocky Mountain Spotted Fever and Tularemia. Attachment time for RMSF is ten hours on an unfed tick, and ten minutes on a fed tick, according to the Center for Disease Control.





Charlene's Corner

Winter Plant ID

March 2017

Charlene Costaris

Dear Master Gardeners:

You may have heard that I've run into some health issues. I expect to be away from the office a lot over the next few months, so Jerry and I decided to recycle some of the columns I've written over the last years. I hope that they'll be useful for you, and I look forward to being back in full swing by the end of the summer. The following article first appeared in The Grapevine in January 2011.

Charlene

Getting bored with winter? This is an excellent time of year to sharpen up your plant identification skills. Identification seems scary when there are no leaves or flowers to help, but it's mostly a matter of learning to look at different set of clues.

Start by looking down. You may actually find leaves or fruit on the ground under the tree or shrub. It's not 100% reliable, of course, but if all you see under the tree are spiky balls and star-shaped leaves, it's probably a sweet gum. Then you can confirm it with a key.

There are ID keys that are written specifically for winter identification. Next time you're in, you might want to take a look at the fruit and twig key we have in the office.

Some characteristics are completely obvious. Does it have thorns? What is the texture and color of the bark? Are there projecting woody wings along the twig? Some important characteristics are more subtle, and you'll need a sharp knife and a hand lens. You need to look at things like the scars where last summer's leaves were attached. The shape of the leaf scar and the buds may be diagnostic. Also, in that scar are smaller marks where the vascular bundles passed out to the leaves. The number and arrangement of bundle scars is specific to the individual species. And of course you look at whether the leaves are opposite or alternate.

Some species have stipules, which are tiny projections from the base of the leaf stalk. The stipules, if present, will leave marks on the twig in a certain way. On sycamore, the stipules go all the way around the twig. When the leaf falls, the stipule scar is left on the twig.



Michael Becker Wikipedia

Leafy stipules at the base of rose leaves.

Charlene's Corner Continued From Page 16



© K. R. Robertson
Illinois Natural History Survey

K. R. Robertson Illinois Natural History Survey
Stipule scars of magnolia encircle the twig



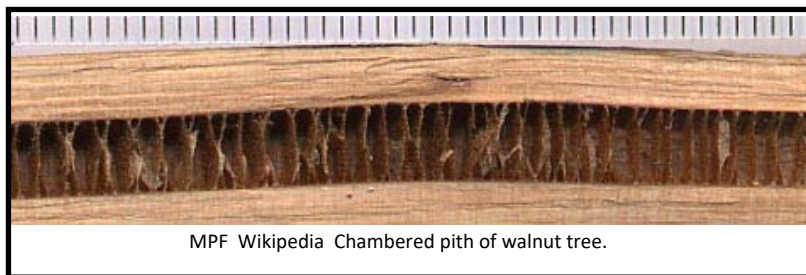
ArRo0002 Wikipedia
Leaf scar of horsechestnut, showing
seven bundle scars

You'll also need to slice a twig lengthwise and look at the pith, which is the punky stuff in the center of the young twig. Most trees and shrubs have solid pith, but not all of them do. For example, forsythia has hollow pith, and tulip poplar has pith that is crossed with horizontal dividers. It's called diaphragmed pith. Pith is usually round in cross section, but it may be triangular or star-shaped.

Buds can tell you secrets, too. Are there two kinds of buds on the same twig? If so, you're looking at both flower and leaf buds. How are the buds arranged? Oaks have a cluster of buds at the end of the twig, and they're the only tree that does, so far as I know. Buds are protected by bud scales. Usually they overlap like shingles, but not always. How many bud scales are there, and what is their pattern? Look at the location of the buds versus the leaf scars. Usually the buds are above the leaf scars, but not always. Black locust buds are actually hidden by the leaf scars. When you look at the twig, there appear to be no buds.



Karren Wcisel Virginia Institute of Marine Science
Clustered terminal buds and alternate branching on white oak.



MPF Wikipedia Chambered pith of walnut tree.

Winter ID is much like detective work. Put together the clues and soon you identify the culprit.



Plant Communication

Chuck Labelson



Gardeners are very protective of their plants and flowers and sometimes use pesticides and garden defense sprays before any signs of infestation. We take these preventive measure so that are prized plants are not ravished and destroyed by predators, thinking that plants are helpless to protect themselves. In the last 15 years many experiments have been conducted by scientist in the field of plant communication. Scientists have found that plants interact with each other both aboveground and below in very sophisticated and subtle ways.

It turns out that plants are not as helpless as some might think. It has been shown that many plants have an impressive chemical arsenal to protect themselves from microscopic pathogens, insects, and even large herbivores. A variety of plants are capable of producing toxins in their tissues that make them unpalatable and in some cases lethal to predators. Other plants produce a volatile organic compound (VOCs) that is released into the air to alert other plants in the vicinity, as far as 25 feet away, of imminent danger. Beneficial insects that attack and feed on the destructive pests are attracted by these phyto-volatiles or (VOCs), that are air born pheromones emanating from the plants in need of help. In place of the VOCs the term phyto-volatiles will be used because the term VOCs has a dual meaning. (Phyto=plant)

The term (VOCs) is also the abbreviation for “vaporized synthetic chemicals”, and in strong doses these chemicals (VOCs) are detrimental to our health. They are found in pesticides, paints, carpeting, laminate flooring, and even ink from marker pens. In contrast, the plants’ phyto- volatiles are not toxic to us and produce the sweet fragrances of roses that attract pollinators, as well as having a defense-related function.

In fact, the lovely smell of cut flowers or the aroma of cut grass is really a plant’s distress call. According to James Cahill, an environmental plant ecologist at the University of Alberta, noted in his book “What Plants Talk About”, that a tobacco plant can recognize the saliva of a hornworm caterpillar. The plant begins to protect itself by emitting a chemical that appeals to the caterpillar’s enemies. In this scenario, it is the big eyed bug that shows up within hours and ideally drives the pests away or consumes them. When David F. Rhoades, a researcher with a doctorate in organic chemistry from the University of Washington, made similar observations in 1983, relating to the chemical changes in plants’ leaves when attacked by caterpillars, his work lost favor in academic circles and he was ridiculed by his contemporaries. “Talking trees” was a concept that scientist could not accept only 34 years ago.

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Scientists have learned that the carnivorous pitcher plant, a native of Borneo, has evolved to hijack bat communication systems. The plant attracts bats by relying on the bat's acoustic or ultrasound reflectors. The pitcher plant's orifice features a prolonged concave structure that reflects the bat's echolocation calls from a wide range of angles. The pitcher plant's structure enables the bats to locate and identify the pitcher plant even in highly cluttered surroundings. The multidirectional ultrasound reflectors attract the bats who provide rich nutrients for the plant in the form of bat guano.

Plants also communicate through the soil. Plants secrete soluble chemicals in the rhizosphere (a top section of soil) that act as transport signals along a thread-like network formed by soil fungi, namely known as mycelia. It has been shown by scientists in Israel that pea plants shutter off their stomata when stressed by drought conditions. The stomata are found in an area under the leaf that allows gasses and H₂O into the atmosphere. Closing off the stomata prevents dehydration. Pea plants that were forced into drought conditions, signaled their neighbor plants. The neighboring plants reacted by closing off their stomata even though they were sufficiently irrigated. Expecting drought conditions, the irrigated plants signaled other irrigated plants, and they too closed their stomata. Similar pea plants in the same area whose roots were not connected to the first set of drought-stricken plants did not react, and did not close off their stomata, proving that plants can communicate through the soil.

There are other forms of plant communication and lots more fascinating facts, in fact, I think I hear one now; sorry, I have to go.





Master Gardener's Hand Picked Recipes By Adele Polomski

SEASONAL EATING WITH A NOD TO SUMMER

One of the joys of cultivating a garden is eating seasonal, locally grown food. A seasonal diet is more diverse and perhaps healthier. The local food movement is about improving the health of the planet, with less fuel burned to transport food. Here in the winter, it's probably best to make peace with the fact that most of our cold weather produce comes to us in planes and trucks. Still, we can eat seasonally. Ignore the cellophane packages of asparagus and haricot vert and head for the piles of knobbly winter root vegetables. Humble, hairy-skinned, and mud-creviced, root vegetables are the unsung, undisputed stars of cold weather cooking.

Kohlrabi--sweet like a carrot but running with juice, is excellent raw in a spring roll or tasty eaten alone as a snack. Turnips, not as sweet or tender as their spring cousins, can stand up to longer cooking times and are perfect in soups and stews. Oven roasted carrots, parsnips, and sweet potatoes are a satisfying winter staple. Celery root is lovely and earthy pureed with potatoes but it's equally satisfying whittled into match sticks and tossed into a salad fortified with a handful of toasted hazelnuts.

I love all winter veggies, and particularly parsnips, but when seed catalogs hit my mailbox, root vegetables lose a bit of their appeal. Jewel-toned peppers, great bunches of chard with wide stems and lush leaves, and those frilly lettuce heads are especially alluring when my winter garden is a pot of dead mint. And, of course, there are all those tomatoes.

So, what to eat when bone chilling days and frosty nights roar for something hot and comforting with a nod to the bounty of late summer? Eggs in Purgatory. The recipe starts with tomatoes. Store bought, either canned or fresh, will do. If you have fresh tomatoes (watery, winter tomatoes are fine), cut them in half, season with salt and pepper and roast cut side up with a drizzle of olive oil in a 400-degree oven until softened, about 20 to 25 minutes, then brown slightly under the broiler. If roasting tomatoes seems like too much bother, don't worry, canned tomatoes are also delicious.

Feel free to adapt the dish to what you have lying around the pantry or fridge. Beans, sausage or cheese will fortify this Tuscan one-pan meal which takes no time to prepare, and I promise, is more than the sum of its parts.

EGGS IN PURGATORY (adapted from Nigella Lawson) Serves 2

INGREDIENTS

- 1 tablespoon olive oil
- 2 small cloves garlic (peeled)
- ½ teaspoon dried red pepper flakes
- 28-ounces, diced canned tomatoes, or frozen tomatoes from last summer's garden (wishful thinking, perhaps)
- 1 teaspoon Kosher salt (or to taste)
- 4 large eggs
- 2 tablespoons grated parmesan (or as much as you like)
- Hot sauce (optional)
- 4 slices baguette (optional)

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By Adele Polomski

DIRECTIONS

Heat the olive oil in a frying pan set over medium heat, then grate in the garlic. Scatter in chili flakes and heat, stirring for about a minute.

Tip in the tomatoes, stir in the salt, and let mixture come to a bubble.

Crack in the eggs, sprinkle the Parmesan over, and partially cover with a lid. Let mixture bubble for about 5 minutes by which time the egg white should be set and the yolks still runny.

Remove from the heat and serve with an additional sprinkling of Parmesan, hot sauce for those who like a more heat, and bread for dunking.

And because I really do love winter root vegetables, here's a bonus recipe for Chocolate Beet Cake. Beets are at their best in the summer, tender and sweet, but they are nutritious and make this cake remarkably moist. This cake isn't too sweet, and it's more of a snack than an impressive celebratory dessert. It's delicious on its own, with a cream cheese frosting or with a dusting of powdered sugar, which is reminiscent of snow so I don't bother.

You can boil your beets or roast them, but please don't use canned beets or pureed baby food. You can bake this in the recommended 8-inch springform pan or a square or oblong baking pan. Baking time will vary, of course, depending on how succulent your beets and the size of your pan. Bake until the cake tests done and enjoy!

CHOCOLATE BEET CAKE (adapted from Nigel Slater)

Serves 8

INGREDIENTS

8 ounces fresh beets

7 ounces dark chocolate (70%)

1/4 cup hot espresso

3/4 cup butter

1 cup + 2 tablespoons all-purpose flour

1 1/4 teaspoons baking powder

3 tablespoons good quality cocoa powder

5 eggs

DIRECTIONS

Cook the beets, whole and unpeeled, in boiling unsalted water until tender, about 30 to 40 minutes. Alternatively, roast beets in aluminum foil in a 375 degree F. oven for 45 to 60 minutes. Young beets may take slightly less time to cook. Cool, peel and process in a blender or food processor, or use a box grater for a coarse puree.

Heat the oven to 350-degrees F. Lightly butter an 8-inch springform cake pan and line the base with a round of baking parchment.

Melt the chocolate, broken into small pieces, in a small bowl set over a pot of simmering water. Don't stir. When the chocolate looks almost melted, pour in the hot espresso and stir. Cut the butter into small pieces and add to the melted chocolate. Push the butter down under the surface of the chocolate with a spoon and leave to soften.

Sift together the flour, baking powder and cocoa. Separate the eggs, putting the whites in a large mixing bowl. Whisk the yolks together.

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By Adele Polomski

Remove the bowl of chocolate from the heat and stir until the butter has melted. Fold in the beets, and let cool slightly before stirring in the beaten egg yolks. Whisk the egg whites, gradually adding the sugar, until stiff. Fold the beaten egg whites into the chocolate mixture, then lastly fold in the flour mixture. Transfer quickly to the prepared cake pan and place into the oven, decreasing the heat immediately to 325 degrees F. Bake for 40 minutes. The rim of the cake will feel spongy, the inner part should wobble the slightest bit when gently shaken but should not be gooey. Test and continue baking until moist crumbs cling to the cake tester.

A FINAL NOTE:

As you pore over those seductive seed catalogs and dream of your summer garden, consider that although there are over 20,000 species of edible plants on the planet, humans only use about twenty species to provide ninety percent of our food. This statistic comes from Joseph Simcox, an acclaimed "botanical explorer" and speaker at the 2016 Master Gardener Conference. Joe has traveled there in search of amazing and delicious cultivated species, particularly those in danger of extinction. For a look at Joe in action, Google *The Fruitful Forest, Joseph Simcox*. If you're on Facebook, check out Gardens Across America. You won't be disappointed.

And check out growrareseeds.com for Joe's purple sweet potatoes, scarlet kale, black beauty tomatoes, lilac bell peppers, a rainbow of carrots and loads of other unusual seeds to diversify your own garden.

All of the experts at the annual conference were knowledgeable, passionate and deeply inspiring. Who knew hazelnuts were the new cash crop in town? And that you can grow chocolate in New Jersey, if you have a greenhouse. I'm already looking forward to the 2017 line up! But first, spring!



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Jim and Noreen will be ordering Pro Mix again this year for our members. Attached is the order form. We look forward to ordering many bales. Thank You.

You can mail it or give it to me when you see me, or even give it to Debbie who will hold it for me.

Do not mail it to the Ag Center.

My Address:

James Digney
641 Delaware Avenue
Point Pleasant, N.J. 08742

Pro-Mix Potting Mix Order Form, 2017

Fellow Master Gardener,

Noreen and I have the privilege of being able to order pro-mix potting mix at the greatly reduced price of \$30.00 (approximately 50% off retail) per bale. This amount includes shipping and handling.

Each COMPRESSED bale measures 3.8 cu. ft. The components of these bales consist of Canadian sphagnum peat moss, endomycorrhize, perlite, vermiculite, dolomitic and calcitic limestone, macronutrients, micronutrients, and a wetting agent.

This is a terrific potting mix offered at a great price! The same potting mix we use in our Master Gardener greenhouse, hoop-house, and prop-shop.

PLEASE place your order and mail your check, to be received by Jim Digney not later than **Wednesday APRIL 5th**.

Pick up of your **PREPAID** Pro-Mix will be **Friday April 14th** at the Ocean County Park Garden. Time of pick-up will be between the hours of 1:00 p.m. and 3:00 p.m. **IF** you cannot comply with this pick-up date, **PLEASE** make other arrangements with either Noreen or me.

Many thanks.

Noreen and Jim

Name _____

Phone Number _____ E-mail _____

Number of Bales Requested _____ Check Number _____

Total Amount of Your Check (\$30.00 each bale)

Please make your checks payable to OCMG, INC.