Our consistent above average temperatures this winter have ignited questions about whether or not we will suffer higher than average numbers of insect pests. There is no concise sound bite or tweet-worthy answer. It’s complicated by the wide ranging strategies used by insects to successfully deal with winter conditions. The answer is made even more complicated because evolutionary selective advantages that reward one strategy over another haven't been consistent across taxonomic groups. So, we can't say that all beetles deal with winter in a certain way, or all flies, or all bees, etc. Questions spawned by warm winters are at the opposite end of those that arise from winters dominated by lower than average temperatures, but the same principles apply.

At one end of the spectrum are insects that clearly benefit from warmer than average winters in Ohio. Goldenrain Tree Bugs (*Jadera haematoloma*) appeared in large numbers on their namesake host in southern Ohio during the 2012 and 2013 growing seasons. This native insect is common in Florida where it feeds on the seeds of plants in the soapberry family. However, they disappeared from Ohio during the winter of 2013-14. Populations of the Common Bagworm (*Thyridopteryx ephemeraeformis*) were also decimated. The rise and fall of these insects in relation to warmer or colder than average winter temperatures adds support to the perception that a warm winter means more insect pests. Of course, the winter survival of these insects was based more on luck than evolutionary advantage. This is not the case for most of our Ohio insect pests.

Some southern insects give up the ghost in Ohio during even our mildest winters, but they reappear in our state in the spring or early summer by being blown north from their southern winter enclaves. Potato Leafhopper (*Empoasca fabae*) is the poster child for this seasonal repopulation strategy. The hoppers spend the winter enjoying the sunny south but mated females are wafted north on storm fronts in the spring to establish damaging populations. Neither colder than average nor warmer than average Ohio temperatures will have an effect on this pest. At least thus far; perhaps climate change will change this.

Other insects handle Ohio winters by seeking over-wintering locations where temperatures remain moderate. However, this may be a
GARDEN MUSINGS

The Tale of the Hairy Hydrangeas at the Ag Center
by Connie Smith, Master Gardener Coordinator

This story began late last Fall when one day, I noticed the leaves of the newly planted hydrangeas at the Ag Center were mysteriously disappearing!! At first, I thought it might just be one of the plants losing its leaves and maybe not surviving the planting. But after looking a bit more closely I realized several of the hydrangeas, especially on the East side of the building, were indeed missing leaves. How could that be? It had not been all that cold and there JUST has to be more to eat in the wooded area around the Ag Center than those beautiful, newly planted hydrangeas.

As the weeks progressed, more leaves disappeared and then the final straw!! Some of the new growth were being browsed off... and yes, you guessed it ..the dreaded deer had found a feast!!

So after a quick email to our Ag Center gurus, Hank and Judy, they assured me they had a cure! Little did I know exactly what that cure might be, but within a few days I realized the newly eaten hydrangeas had NOT been touched by Bambi but looked almost hairy...hmmmm...hairy hydrangeas!! What’s happening here?? Something is definitely rubbing on those hydrangeas, they don’t look quite right, they almost look hairy!!

After a quick email to the dynamic duo I was informed, “That is a custom blend of Vaseline, Cayenne, and the finest Golden Retriever fur, otherwise known as ‘the homeopathic double whammy deer repellent of Fairfield County’”. Hence the tale of the hairy hydrangeas at the Ag Center!! Thank you Hank and Judy for finding a very effective cure for deer browsing at the Ag Center plant buffet!! And special thanks to Cooper, Hank’ s Golden Retriever, for sharing a bag of the finest Golden Retriever fur in Fairfield County!!
2017 Master Gardener Training Just Around the Corner

by Connie Smith, Master Gardener Coordinator

The 2017 Master Gardener training is scheduled to begin on Thursday, March 23, 2017 here at the Fairfield County Extension office. Listed below is the most current schedule for the program. As in the past, the final session on May 11 will be the potluck and presentation day. I do hope you can make plans to join us throughout the training and come and celebrate with our new MGVs of 2017!

March 23—OSU Extension Fairfield County
831 College Avenue, Lancaster
9:00 AM   Getting Started
10:00 AM  Soil
Stan Smith—OSU Extension Fairfield Co
11:30 AM  Lunch Hour
12:30 PM  Soil (continued)
Stan Smith—OSU Extension Fairfield Co
1:30 PM   Wildlife Control
Tommy Springer- Fairfield SWCD

March 30—OSU Extension Fairfield County
831 College Avenue, Lancaster
9:00 AM   First Detector Program
Nancy Taylor—Director, OSU Plant & Pest Diagnostic Lab
11:30 AM  Lunch Hour
12:30 PM  Entomology
Dave Shetlar “the OSU BugDoc”

April 6—Pickaway County Library
1160 North Court St, Circleville
9:00 AM   Vegetables
Greg Meyer—OSU Extension Warren Co.
11:30 AM  Lunch Hour
12:30 PM  Fruit
Greg Meyer—OSU Extension Warren Co.

April 13—Pickaway County Library
1160 North Court St, Circleville
9:00 AM   Plant Pathology
Mary Griffith—OSU Extension Madison Co.
11:30 AM  Lunch Hour
12:30 PM  Pesticides
Mike Estadt—OSU Extension Pickaway Co.
3:00 PM   Phenology Garden
Pickaway County Master Gardeners

April 20—OSU Extension Fairfield County
831 College Avenue, Lancaster
9:00 AM   Diagnostics
Joe Boggs—OSU Extension Hamilton Co
Noon     Lunch Hour
1:00 PM  Integrated Pest Management
Francesca Hand—OSU Department of Plant Pathology
2:15 PM  Invasives
Jerry Iles– OSU Extension Fairfield Co.

April 27—OSU Extension Fairfield County
831 College Avenue, Lancaster
9:00 AM   Botany 101
Dr. Cookie Trivett, Retired Botany Professor, Ohio University
11:00 AM  Composting, Lasagna Gardening
Ted Wiseman—OSU Extension Perry Co
Noon     Lunch Hour
1:00 PM  Water Quality
Ted Wiseman—OSU Extension Perry Co
1:45 PM  Lawn Care and Weed Identification
Chris Penrose–OSU Extension Morgan Co

May 4—Mary Virginia Crites Hannan Park
Corner of SR 188 and Pontius Rd, Circleville
NOTE: Please come dressed to be outdoors most of the day
9:00 AM   Natural Resources
Jim Osborn—former Ohio Natural Areas and Preserves Manager
Rhoads Farm Market
Brent Rhoads—OSU graduate
Liggett’s Pumpkin Patch
Dr. Liggett is a 5-time winner of the Circleville Pumpkin Show’s grand champion

May 11—OSU Extension Fairfield County
831 College Avenue, Lancaster
9:00 AM   Presentations, Potluck, and more...
Potted Fever
by Linda Landis, Master Gardener 2011

Come April, I am susceptible to not only spring fever but also “potted fever”. It gets a hold of me and I don’t want a cure. One symptom is anxiety about waiting for the magic frost free date in May to plant those annuals in pots. The bright colors of summer annuals after winter gray are so welcome. They provide instant beauty in the landscape complementing the bright green spring grass.

My first trip to buy plants could last for hours. I am in euphoria and even get light headed seeing row after row of colorful bedding plants at the nursery. What a beautiful sight when my car is packed with flats of pink and white begonias, all colors of impatiens, and pink and purple petunias. But I am not done. Salmon geraniums, kong coleus and blue lobelia are added to my purchase along with sweet potato vine, variegated vinca, a couple of ferns and a six pack of orange marigolds is needed for the pot stationed near the back porch.

Annuals are the real flower power showing off their colorful blooms all summer and often into fall with cooperating weather. All they want in return is regular watering and fertilization. There is not a lot of diversity in my containers. The only way my pots would get a 10 rating is on the pH scale. In other words, they are basic. I make up for this in quantity. About seventy pots are planted. Every year I think about cutting back on this number. However, this thought is rejected and invariably more are added. Silly me, I added seven pots last fall. I am incurable. Many of my pots are garage sale finds and end of season clearance at the big box stores.

Should that used pot have soil in it, dump it out on site and don’t take old soil home as it can carry disease. Be sure to wash and sanitize those used pots. Use a sanitation solution of 1 part household bleach to 9 parts of water. Don’t buy used terra cotta pots as they are too much work to sanitize (boiling in water). If you didn’t do fall garden tool clean up, do it now while you are waiting for planting weather. Clean off all soil from the tools and apply a coating of oil. Household vegetable oil works well. Clean off excess oil. Don’t forget to sanitize your tomato cages and stakes. This will help to ensure healthy tomatoes this summer. Good garden hygiene is a best practice.

Charmer Through the Armor
by Esther Messerknecht (MG 1996)

The mask we wear
Of covering the inner self
Joy of pleasing others,
Restoring to our health.
Mankind in all their fine
fitted knight’s armor.
Love in the art of our creative fiber
We become a charmer!
Shadows of our life falls across the open stage.
Each year we live creating a brand new phase.
Childhood, youth, mother/father we’re gardeners
as we age through the years
Wealth of vision and memories
Dramatic production have no fear!
(Written December 4, 2016)

Newsletter Deadlines

Do you have an article, garden musing, photo from an MGV project, calendar event or other idea you’d like to submit for the MGV newsletter? Articles and information are welcome at any time! Items not used in an upcoming newsletter can be saved and used in a future newsletter. Newsletters are published quarterly with the following submission deadlines:

Spring Newsletter—submit by February 1
Summer Newsletter—submit by May 1
Autumn Newsletter—submit by August 1
Winter Newsletter—submit by November 1

Email articles and information to Kelley Scott at scott.1863@osu.edu or kelleynotez@yahoo.com. Contact Kelley by email or at 740-475-8498 with questions or ideas! Thanks to all who contribute!
Warm Winters (cont’d from page 1)

risky proposition. All insects are cold blooded (ectothermic) meaning that their body temperature and thus their metabolic rates depend on external heat sources such as sunlight, heated surfaces, or ambient air temperature. Insects that spend the winter hiding from the cold prepare themselves by accumulating fat in the fall then they live off the fat through the winter. A warm winter may mean they can literally starve to death because they are not feeding and high temperatures increase their metabolism causing them to consume their fat reserves. Multicolored Asian Ladybeetles (*Harmonia axyridis*) and Brown Marmorated Stink Bugs (*Halyomorpha halys*) commonly seek protected overwintering quarters in the walls or attics of our homes. However, if they venture into our homes, they quickly burn their fat reserves and die. While this is an extreme example, it serves as example of the risks associated with this overwintering strategy and why a warm winter may not benefit all insects.

Rather than depending on finding a protected location in the fall, some insects enter the winter in protected packaging of their own making. Eastern Tent Caterpillar (*Malacosoma americanum*) moths produce eggs that appear to be surrounded by bubble wrap. No doubt the air in the hollow structures surrounding the eggs provides some insulating protection against cold temperatures. Since they are protected against the cold, warm winter temperatures would just be icing on the cake. On the other hand, common bagworms overwinter as eggs protected by both their bags and the dead bodies of females. However, research has shown the eggs are subject to low temperature mortality with 50% of the eggs killed if exposed to 6.8F.

Some insects are simply unaffected by even our coldest Ohio winters because they can protect themselves with antifreeze; literally! It's not cold temperatures that kill insects, its sharp-pointed ice crystals that form below 32F to pierce and destroy cells that kills insects. Insects may rely on a wide range of chemicals that lower the freezing point of their blood (hemolymph) to prevent the growth of spiky ice crystals. This includes ethylene glycol, the same chemical we use as antifreeze in our cars. Of course, this ability means a warmer than average winter has little impact because even a colder than average winter does not kill these insects.

Finally, some insects dodge the winter bullet by employing several strategies including diapause. This is a physiological state that’s much deeper than hibernation. The insect’s metabolism slows way down – regardless of temperature – and does not return to normal until the insect experiences certain environmental cues that cause it to come out of diapause. If the insect combines diapause with producing antifreeze, finding a protected location, or making their own protection, it will substantially increase the insect’s success rate with handling winters one way the other.

Gypsy Moth (*Lymantria dispar*) spends the winter as diapausing 1st instar larvae inside eggs beneath a protective covering of scales deposited by the females. Research has revealed that this combination of overwintering strategies has its limits with the larvae being killed if temperatures of -20F last from 48 to 72 hours. However, warmer than average winter temperatures does not mean we will see a higher than average number of gypsy moths; it just means this low temperature threshold (which would be rare for much of Ohio) was not experienced. Indeed, research has shown that pathogens, predators, and parasitoids usually have a greater impact on gypsy moth numbers compared to just cold or warm winter temperatures.

The bottom line is that overwintering strategies of insects are varied and complicated meaning that we can't paint with a broad brush to predict what effect, if any, our balmy winter temperatures will have on insect pests. This early season question is much like the late season call for predicting fall colors. About all we can say with certainty is that we will have insect pests during the upcoming growing season regardless of winter temperatures ... and leaves will change color at the end of the season.

Article written by Joe Boggs, Assistant Professor and Extension Educator at The Ohio State University, published February 18, 2017. Full article available at [http://bygl.osu.edu/node/680](http://bygl.osu.edu/node/680).
Talk About Companion Planting!
by Carol Schleich, Master Gardener 2013

Last summer while attempting to fight off two invaders I learned something - just call it irony. Part of my yard seems to be a safe haven for poison ivy and unfortunately non toxic solutions such as boiling water, vinegar and salt did not eradicate this blight. I clipped roots, sprayed the formerly contraband chemicals, wore ever so flattering thrift store long sleeved shirts and brown jersey gloves and still ended up on the losing side of the fight. Even one small blister on my wrist drives me crazy.

Simultaneously, I decided that a beautiful wildflower lining a ditch was out of control and began thinning it. As it choked out weeds and I had no substitute in mind, I don't understand my rationale, other than their water filled stems were easy to pull which made me feel successful at something.

One weekend while driving through the Hocking Hills I decided to stop at a small shop to get a cold soft drink. No such luck. It was not a convenience store, but a souvenir stand with dry goods including t-shirts and various sundries. As I looked around, I spotted a brown plastic bottle with a small home printed label which the proprietor explained to be a home remedy concocted by one of her friends to relieve the torments of poison ivy, stinging nettle and other examples of contact dermatitis. At $6.50 it would be a steal - if it worked and if it was safe - with the added bonus of proceeds going to an animal rescue the shop owner supports.

"What's in it?" I learned that the main ingredient is jewelweed which grows wild throughout the area. Figured it out yet? If so, you are smarter than I am. An Internet search reveals that this "weed" is the pretty wildflower growing in my ditch, just yards from the poison ivy that refuses to die. According to Wikipedia, jewelweed (impatience capensis) is a traditional Native American remedy for skin rashes including poison ivy. The plants grow from three to five feet tall and bloom from late spring to early fall and hummingbirds as well as bees are heavy pollinators. Deer also love them.

Although I found a formula for the tincture I decided against using alcohol and created my own compound by steeping a pan of jewelweed stems, flowers and roots in boiling water. I let it cool, strained and composted the jewelweed and refrigerated the liquid, then splashed it on liberally after any and all yard work. It also helps relieve the misery of mosquito bites and may be preserved by freezing in ice cube trays. Fresh jewelweed's stems can be sliced open and the juice be rubbed directly on the affected area. Some people claim that the fresh juice works faster and is much more effective than the tincture.

Calamine lotion has always been too chalky and drying while not always performing to my expectations, so I am happy to report that both the purchased tincture and my own brew soothed my skin and kept poison ivy at bay. No more itching! No blisters!

Warnings: This compound can stain clothing, but more importantly, under no circumstance ingest this tincture. (You already knew the latter.) As with any home remedy, there is always the possibility of an allergic reaction. P.S. After working as a paralegal for twenty-two fun filled years, I feel compelled to subscribe to the CYA code; hence the disclaimer. I personally have had nothing but positive experiences using jewelweed.
Take a Garden Inventory
by Melinda Lee Adkins, Master Gardener 2015

In the spring as the plants are emerging, I sometimes have trouble determining if the plants are weeds or something that I planted. So, I created a list, map, and I took pictures to help me identify the plants. I saved the plant tags after I purchased new plants. I placed the tags and my inventory list in plastic sheet protectors and organized them in a binder.

My Garden Inventory
In my front yard I have a rain garden with echinacea, live forever – autumn joy sedum, northern sea oats, ninebark, joe-pye weed, goldenrod, black-eyed susan, and switchgrass. In the front yard around the porch area I have coral bells, canna lily, boxweed, azalea, blanket flower and juniper.

On the front porch I have lettuce growing in containers. Under the tree I have Chives, hostas, blue false indigo, downy wood mint, hairy beardtongue, blue cliff aster, and succulents. I also have a raised garden with tomatoes, cucumbers, peppers, and snap peas.

On the patio in large containers I have butterfly weed and golden alexander. At the corner of my front yard I have peonies, dwarf red barberry, and little princess spirea.

In the backyard I have blackberries, blueberries, strawberries, Russian sage, lavender, basil, oregano, candy tuff, silver mound, goldenrod, black-eyed susan, lemon balm, and various grasses.

I have a small pond and two bird baths in the backyard. At the side of my house I have swiss chard, milk thistle, and green beans growing. I am sure that I have forgotten to list something. Do you think that I should plant something else?

RIPE FOR THE PICKING
Calling All Nature Lovers

The Genius of Birds by Jennifer Ackerman
Voted one of the best non-fiction books of 2016
Jennifer Ackerman's The Genius of Birds is extraordinary. Research in recent decades has put the label “bird brain” to rest as an insult. It has been proven that Clark's Nutcracker creates thousands of locations over dozens of miles and remembers them! Birds also read signals, give gifts, count and recognize faces. When nesting they make critical decisions about location, materials and construction itself. To win a mate, a male satin bowerbird must be artistic, smart, sensitive, athletic, handy and a good learner. A choosy female must have considerable brainpower to size up all these qualities! This book celebrates these incredible creatures.

Barkskins by Annie Proulx
This Pulitzer winner turns her attention to the great arboreal forests. Beginning in the 1600s with two indentured servants come to the New World from France, she follows their descendants for three hundred years. Charles establishes an empire while Rene marries a native woman and they live off the land in poverty. The characters travel from French Canada to Europe, China, New Zealand and across North America wherever there are trees to be cut and money to be made. The story of these two families is also the story of the abuse of natural resources once seen as inexhaustible. It's about progress from a new untamed wilderness to where we are today. It's a powerful cautionary tale.

Reviews by Barbara Kochick, MG 2013
In and Around the Garden—You Won’t Want to Miss It!

Mark your calendars with these important dates and upcoming activities/events!

COMING SOON:
Master Gardener Volunteer Training
Beginning March 23, 2017
Hosted by Fairfield & Pickaway Counties
See schedule on page 3!

Tuesday, April 4 - 6:00pm
Madison Township Community Center
4575 Madison Lane, Groveport
Guest Night—Hosted by Groveport Garden Club and Lithopolis Garden Club. "From seed to vase", basic flower arranging and how to choose and grow cut flowers from our gardens. Presented by Jeff Bazell from Flowers of the Good Earth. Contact Barbara Wood, barbann47@yahoo.com.

Wednesday, April 19—1:00pm
Pickerington Library—Pickerington

Monday, May 15
Annual Plant and Chinese Auction
6:00pm doors open; 7:00pm live auction starts
VFW, 2155 Baltimore Reynoldsburg Rd, Baltimore
Hosted by the Basil Garden Club. Auctioneers Tony Caito & Terry Roberts. Includes garden sales table, complimentary refreshments. A great place to get good quality plants at reasonable prices from the flower beds of experienced gardeners.
Contact Susan Lloyd, 740-862-6639.

Wednesday, May 17—1:00pm
Pickerington Library—Pickerington

SAVE THE DATE:
September 29 and 30, 2017
Ohio State Master Gardener Conference. Franklin and County hosting in central Ohio. Stay tuned for more information!
Contact Kelley Scott at scott.1863@osu.edu or kelleynotez@yahoo.com with garden activities and events to include in the newsletter.

WISHES FOR A HAPPY BIRTHDAY...CELEBRATE AND ENJOY!

MARCH BIRTHDAYS...
Mark Adkins, Bernie Anderson, Mary Edwards, Laura Hempleman, Earl Hill, Edward Kiser, Janet Neeley, Nick Shaw, Connie Smith, Gina Sutphin, Debbie Wren, Beverly Zurhorst

APRIL BIRTHDAYS....
Sheree Baker, Linda Barker, Meghan Blake, Thelma Dilliard, Linda Everitt, Margy Hite, Alice Hughes, Kathy Martin, Connie McVey, Sherry Oatney

MAY BIRTHDAYS....
Erin Eichel, Diane Hilliard-Faulkner, Robin Leja, Michele Parker, Janet Ptacin, Patty Sykes
GARDEN MUSINGS
Growing Tobacco as a Decorative Plant
by Carol Schleich, Master Gardener 2013

While returning from a short trip to Rabbit Hash, Kentucky (a story in itself, including but not limited to, canine mayor Brynneth Pawltro, a general store dating back to 1831 recently devastated by fire and now being rebuilt and situated on the Mighty Ohio), friends and I saw tobacco curing in sheds. We are not smokers, but were interested in growing it as a decorative plant. (Growing tobacco is legal for any personal use.)

I ordered a packet of 1,000 seeds, the smallest quantity available, for $1.25, postage included. Since the growing season for tobacco is three to four frost free months, they need to be started inside about six weeks before the final frost date. Tobacco seeds are tiny - as shown by the accompanying picture - and are sprinkled on top of the soil and left uncovered. They germinate four to ten days after planting. If possible, it is recommended that seedlings are watered from the bottom. Harden off seedlings by placing them outdoors in a shady spot for about seven days, bringing them in at night if there is danger of frost.

Tobacco (along with tomatoes, peppers and eggplant) is a member of the nightshade family and requires similar moderately acidic soil, watering and temperatures. Since tobacco thrives in soil containing nitrogen and potash, those of us who have wood ashes and charcoal grill remains are in luck.

Tobacco roots are rapid growers consisting of a large root structure, with hair-like feeder roots that grow close to the soil surface so we should be careful when hoeing. According to http://flowers.about.com/od/Annual-Flowers/p/Nicotiana-The-Flowering-Tobacco.htm, "Flowering tobacco plants produce fuzzy, sticky foliage and flower stalks with nodding trumpet shaped flowers." Hummingbirds love tobacco flowers!

Some of my experiments turn out better than others and I've had more than my share of crop failures, but I am excited about the prospects of a new plant this summer. If you would like seeds, a few can be shared since I did receive 1,000!!