# **Home Horticulture**

### Ricky's Gardening Tips and Tricks Spring 2019 Issue

Written and compiled by Ricky D. Kemery, Allen County Extension Educator Retired, phone: 260-431-6893

**Ricky's Gardening Tips and Tricks and Home Horticulture** is an online newsletter designed to provide citizens of Allen County and northeastern Indiana with up-to-date information about Horticulture and home issues, written in a lighthearted style! To subscribe, send an email to <u>kemeryr7@frontier.com</u>.

# 2019's Gardening Trends

It is always interesting to look at trends within the gardening industry and how those trends have changed over the years.

For instance, before 1990, annual flowers and larger truck gardens to grow vegetables were the rage. Beginning in the early to mid-1990's, perennial gardens, organic gardening, community gardens, and local foods were just gaining in popularity.



Garden Research, formerly part of the National Gardening Association and now a private company, is a well-known and widely recognized authority on the U.S. consumer lawn and garden market. Each year, the company provides their take on the trends that they see will be important for the gardens industry. The entire survey is available (for a substantial cost) online.

More American households (77 percent) are gardening than ever before. I noticed a tremendous increase in gardening from citizens in the 1990's. Not since the 1940 Victory Gardening movement have so many Americans grown vegetables, and increasingly, the face of that gardener is a young one. In 2018, Americans set a record by spending \$47.8 billion on lawn and garden products and services this year. That breaks down to an average of \$503 per household in 2018 – up nearly \$100 per household - from 2017.

Nowadays, the 22 - to-35 age group (the Millennial generation) is finally becoming involved in gardening. Young Millennial males are taking up the hobby. Millennials view gardening as a way to be kind to Mother Nature. The Millennial generation also craves more time outside since they spent about 50 percent more time inside than their parents did as children.

One area where younger gardeners are making an impact is with technology in the garden, from smartphone apps that ID plants, to automated lawn mowers to in-garden wireless monitors that beam soil-nutrition and watering information to the gardener's gadgets.

**Survey Highlights:** There is continued interest in composting, rain gardening, gardening for pollinators, and minimalist, sustainable gardens utilizing native plants. In other words, people are looking for plants and gardens with a purpose.

#### New mulches

Landscape mulch for decades has been shredded hardwood, a product often called "tanbark" that's actually trees, branches, and bark run through a shredder two or three times (and sometimes dyed different colors).

More and more, consumers will have options for different "cocktails" of mulch. Some of these cocktails include a 50/50 mix of triple-shredded wood and compost, leaf molds, and biochar (a form of charcoal) used to improve soil. These blends not only suppress weeds but also act as a soil amendment. Penn State University research also has

found that mixing 40 percent mushroom compost with 60 percent wood mulch virtually stops the pesky problem of **artillery fungus**, a mulch-dwelling fungus that shoots little black tarry dots (spore masses) on light-colored surfaces.

#### Houseplants

Interest in houseplants is on the upswing – most likely another offshoot of the Millennial generation's interest in reconnecting with nature.

Last year, 30 percent of American households bought at least one houseplant, and Millennials accounted for about one-third of those purchases.

Millennials have fallen in love with houseplants. They have become 'plant parents' with a sense of purpose and a new connection with nature.

The trend harkens back to the 1970s "when no home was complete without various sizes and shapes of non-flowering plants in pots or macramé hangers."

#### Indoor garden kits

Related to the increased interest in houseplants is new interest in growing herbs, microgreens, edible mushrooms, and other small edible plants indoors. Both garden centers and online sellers offer a variety of kits that usually include a version of self-watering pot, seeds, "designer" potting mix, and a built-in lighting system.

The \$100 Smart Garden 3 system, for example, touts its "NASA-inspired smart soil," while OPCOM Farm offers a sleek Grow Box unit with four adjustable overhead plant lights.

### Cut and edible flowers and Landscape Edibles

Edible flowers are delighting a larger crowd, including dandelions. wild violet flowers, rose petals, fuchsia, begonias and nasturtiums.

Fruits, vegetables, and herbs – the more traditional plants that we eat – also have made a comeback in the last 10 years. What's particularly catching on now is mixing them into the landscape as opposed to growing them only in dedicated food gardens.

# More Glyphosate (Round-Up) Drama

Miami Bans Controversial Herbicides That Are Killing Biscayne Bay condensed from an article by: Jessica Lipscomb | March 1, 2019 - Miami NEW TIMES

Glyphosate is a popular ingredient in weed-killing herbicides because it's extremely effective. But it's also a well-known pollutant — researchers have found the chemical in samples of <u>the air we breathe</u>, <u>the food we eat</u>, and even <u>the beer and wine we buy from the liquor store</u>. Now, the ingredient has been banned in Miami. On Thursday, city commissioners



approved a resolution prohibiting the city and its contractors from using herbicides containing glyphosate, including Roundup. The ban went into effect immediately. Miami Waterkeeper, a local clean-water advocacy group, applauded commissioners for the decision.

### **Glyphosate Found in Food and Water**

Exposure to glyphosate and Roundup's other, "secret" inert ingredients is not limited to people and farmers spraying their lawns and crops. It is in tap water and on and in (yes in, because it is metabolized by) the vegetables we eat. It is in livestock that are fed the crops it is used on. Trace amounts have even been found in ice cream and other common foods. Its use is so widespread and insidious that amounts of it both large and barely detectable can be found in myriad places and foods.

## **Burying Our Heads in the Sand**

Over the years I discussed the issue of glyphosate and GMO's with Extension professionals at Purdue University. I did not agree that GMO's were safe, and Round-up was harmless. Just recently I talked with an Extension Educator who remarked that sadly there was no science to show Round-Up was a threat to the safety of the environment and humans.

This is a story I heard often while at Purdue. I have looked at research studies that contradict what Purdue has been preaching for many years. I was shocked to discover recently how many countries and U.S cities that have banned or restricted the use of Round-up.



The list link is below. I also have provided a list of studies that have been conducted in recent years that show negative effects of Round-up.

In my opinion, Purdue and other land-grant universities and Extension programs should have warned us about safety concerns with glyphosate, instead of promoting its use by landscape professions and citizens - and also promoting the use of round-up by farmers on GMO crops such as corn and soybeans.

The following countries, and U.S. states and countries, have either banned or restricted the use of glyphosate. Many countries were alarmed by the report in May 2014 where researchers at the International Agency for Research on Cancer concluded that exposure to glyphosate doubled the risk of developing non-Hodgkin lymphoma.

https://www.baumhedlundlaw.com/toxic-tort-law/monsanto-roundup-lawsuit/where-is-glyphosate-banned/.

#### Sources (not a complete list btw.)

- Benachour, N., and G-E Seralini. (2008, December 23). Glyphosate Formulations Induce Apoptosis and Necrosis in Human Umbilical, Embryonic, and Placental Cells. Retrieved from https://pubs.acs.org/doi/abs/10.1021/tx800218n
- 2. Benbrook, C. (2016, February 2). Trends in glyphosate herbicide use in the United States and globally. Retrieved from <u>https://enveurope.springeropen.com/articles/10.1186/s12302-016-0070-0</u>
- 3. Gammon, C. (2009, June 23). Weed-Whacking Herbicide Proves Deadly to Human Cells. Retrieved from <a href="https://www.scientificamerican.com/article/weed-whacking-herbicide-p/">https://www.scientificamerican.com/article/weed-whacking-herbicide-p/</a>
- Heyes, J.D. (2015, April 5). Monsanto Roundup Harms Human Endocrine System at Levels Allowed in Drinking Water, Study Shows. Retrieved from <u>http://www.globalresearch.ca/monsanto-roundup-harms-human-endocrine-system-at-levels-allowed-in-drinking-water-study-shows/5441051</u>
- 5. Lerner, S. (2016, May 17). New Evidence about the Dangers of Monsanto's Roundup. Retrieved from https://theintercept.com/2016/05/17/new-evidence-about-the-dangers-of-monsantos-roundup/
- 6. Marc, J., et al. (2002, March). Pesticide Roundup provokes cell division dysfunction at the level of CDK1/cyclin B activation. Retrieved from <u>https://www.ncbi.nlm.nih.gov/pubmed/11896679</u>
- Marc, J., O. Mulner-Lorillon, and R. Belle. (2003, November). Glyphosate-based pesticides affect cell cycle regulation. Retrieved from <u>https://onlinelibrary.wiley.com/doi/epdf/10.1016/j.biolcel.2003.11.010</u>
- 8. Martinez, T., and K. Brown. (1991). Oral and pulmonary toxicology of the surfactant used in roundup herbicide. Retrieved from <u>https://www.ncbi.nlm.nih.gov/pubmed/1788325</u>
- Peixoto, F. (2006, January). Comparative effects of the Roundup and glyphosate on mitochondrial oxidative phosphorylation. Retrieved from <a href="https://www.researchgate.net/publication/7504567\_Comparative\_effects\_of\_the\_Roundup\_and\_glyphosate\_on\_mitochondrial\_oxidative\_phosphorylation">https://www.researchgate.net/publication/7504567\_Comparative\_effects\_of\_the\_Roundup\_and\_glyphosate\_on\_mitochondrial\_oxidative\_phosphorylation</a>
- 10. Plume, Karl. (2017, June 26). California to list herbicide as cancer-causing; Monsanto vows fight. Retrieved from <u>https://www.reuters.com/article/us-usa-glyphosate-california-idUSKBN19H2K1</u>
- 11. Reuters. (2016, April 8). France to ban some glyphosate weedkillers amid health concerns. Retrieved from <a href="https://www.reuters.com/article/us-france-glyphosate-idUSKCN0X512S">https://www.reuters.com/article/us-france-glyphosate-idUSKCN0X512S</a>
- Samsel, A., and S. Seneff. (2013, April 18). Glyphosate's Suppression of Cytochrome P450 Enzymes and Amino Acid Biosynthesis by the Gut Microbiome: Pathways to Modern Diseases. Retrieved from <u>http://www.mdpi.com/1099-4300/15/4/1416</u>
- Villarreal, M. (2017, March 15). Lawsuit accuses Monsanto of manipulating research to hide Roundup dangers. Retrieved from <u>https://www.cbsnews.com/news/lawsuit-accuses-monsanto-of-manipulating-research-to-hide-roundup-dangers/</u>
- 14. Zerbe, L. (2017, March 13). How Much Toxic Roundup Are You Eating? Retrieved from https://www.goodhousekeeping.com/health/diet-nutrition/a20706601/how-much-toxic-roundup-are-you-eating/

## Robogardening

The trend toward "Robogardening" is headed to new levels with this year's launch of a little wheeled robot that weeds the garden for us. Franklin Robotics' new Tertill is being called the "Roomba for the garden."

**Ricky's Notes**: This device is about the size of a small dinner plate – perfect play for a mischievous squirrel. Researchers are also developing



robotic bees that pollinate flowers and plants that glow, with the aim that someday glowing trees could replace streetlights. Landscapers and garden designers are increasingly employing drones to shoot overhead images of yards to aid in designs.

5

## Kalette – So Cute!

A Kalette is a cross between Kale and Brussels sprouts. They are also called Kale sprouts or lollipop kale - or flower sprouts in the UK. They grow just like Brussels sprouts – on a stalk. Instead of producing tight little green balls, the plant produces open leaves that look just like baby kale.

It has the tenderness you expect from a Brussel sprout yet with the flavor of kale without being too bitter. Kalettes are sweet and nutty. If you like either of these vegetables, then this is a must try for you.

Are Kalettes GMO?: It has taken English plant breeders 15 years to develop Kalettes. Kalettes were created through traditional cross-breeding. They were not genetically engineered in a laboratory. They are hybrids - where you take one plant, cross it with another until you get the results you are looking for.

**How to Cook Kalettes:** Kalettes can be sautéed, steamed, baked, or microwaved. They can also be used in smoothies just like traditional kale. They can even be eaten raw. Most cooks prefer the Sautee or baking to "char" the vegetable slightly to bring out more of the nutty flavor. Kalette is very nutritious; having the nutrition of both vegetables combined. Here are links to recipes: <u>https://organicpowerfoods.com/health-topics/top-5-best-recipes-with-kalettes</u>.

# Generations Sources: Sherri Elliott-Yeary WJ Schoer

The study of generations has always fascinated me - from the time long ago when I attended an Extension seminar at Purdue University conducted by Anthony Marston – from North Carolina State University. At the time – there were three generations in the workplace. Dr. Marston compared the differences between the generations – especially in the workplace, as consumers, and as volunteers.

Since that time, the study of generational behavior has become big business, and marketing to different generations effectively means more profits in an extremely competitive world. Experts disagree on the time period of particular generations – and some experts claim it is world events that define when generations occur.

It is important not to stereotype all members of a particular generation as generational studies only look at general trends based on surveys. This is the first time that there are 5 generations (4 are shown above) still active in the workplace. Following is a summary of the five generations:







### Traditionalists - Over 70 years of age

Sometimes called the "forgotten" generation, this generation was raised during the depression and WW2. They believe it is their duty to give back to society. Much of this generation was hard-working, frugal to a fault, and very loyal to their company.

Traditionalists work to achieve a "job well done." They believe in hard work & paying their dues before achievement is recognized. Work supervisors used the authoritative style of management. Traditionalists feel their experience warrants them respect and status. Traditionalists prefer clear verbal or written communication.

This generation were traditional gardeners with large truck gardens. In general, they believed the information that authority figures provided. They used pesticides in the garden and landscape and did not question their safety.

## Baby Boomers - Ages 50 to 70

Just like the Traditionalists, this generation is hard-working and very loyal. However, "workaholic" was first coined for this generation. Boomers are very competitive, often sacrificing home life for their career goals. They associate work and status with self-worth.

Boomers wanted to "make a difference" in the world. Just like Traditionalists, respect comes from tenure and status.



Boomers generally are "team players" - a boomer supervisor will schedule numerous meetings – whether they are needed or not. Most boomers still prefer face-to-face communication and love recognition for their work.

I believe this generation has seen more change than any of the five generations. Think about it, television – then computers, and a little thing called the Internet. Boomers experienced the "Space Age", the assassination of John F. Kennedy, the counterculture "hippie movement", the Vietnam War, Martin Luther King, The Environmental Movement, Women's Liberation.

This generation – along with Gen-Ex – saw the change from one person in a family in the workplace to a two-income family. The Boomer's reluctance to leave the workforce has impacted the younger generations. Many Boomers just won't quit working. Many Gen-Exers, Millennials, and Generation Z vowed never to have their lives defined by work as much as the Boomers.

As gardeners, Boomers also tend to want to "do it all". I still see Boomers still struggling to maintain large perennial gardens, mega mansions, and landscapes.

## Gen Xers - Late 30s and 40s

This was the first generation of "latchkey" kids, exposed to lots of daycare and divorce. Gen Xers grew up in an era of emerging technology and political and institutional incompetence. They were the first generation of true "gamers".



Gen Xers learned that their parents were human and fallible and often found themselves treating their parents like older friends. Autonomy and self-reliance, rather than respect for authority, was a natural byproduct of the Generation X childhood.

Known as the generation with the lowest voting participation rate of any generation, Gen Xers were quoted by Newsweek as "the generation that dropped out without ever turning on the news or tuning in to the social issues around them."

Gen Xers are arguably the best educated generation with 29% obtaining a bachelor's degree or higher.

Gen X parents worried about their kids growing up without a parent around. Gen Xers are known for "helicopter" parenting – with their children being "friends" involved in many household s decisions. Their children could be "anything they wanted to be". They demanded awards and recognition for their children – so the era of the" ribbon for seventh place" became common.

Gen X is often characterized by high levels of skepticism, with a "what's in it for me" attitude. They distrust authority figures and experts.

Instead of being workaholics, Gen-Exers "work to live". Gen Exers do work very hard, but they are not loyal to any company. In their eyes, company loyalty is earned, not expected.

Gen X is much more technology literate than previous generations as technology exploded during their childhood.

Many prefer to work alone or from home; dislike being mentored; want to solve their own problems and manage their own time.

Gen X gardeners in general preferred growing food, becoming involved with causes such as sustainable gardening, alternative landscapes, homesteading, and local foods. They garden with a purpose – and prefer solitary gardening over team efforts.

## Millennials Age 22-35

Millennials experienced the Great Recession in their childhoods. Unlike the Gen-Exers, Millennials prefer group activities – either virtual or real life.

This was the first generation to utilize technology to its fullest. Millennials want the workplace or volunteer experience to be fun and interesting - and tech savvy.



Millennials are confident and ambitious. Millennials believe there's no limit to what they can achieve – because that is what they were told as children by their Gen X parents.

Many Millennials have grown up with overworked stressed parents. The older generations may see this as a commitment issue however the millennial's merely view life differently and want to find the best blend of an enjoyable life with a fulfilling working environment.

Respect and success are based on likeability and competence. Similar to Gen X, this generation is not impressed by job status or titles and believe respect should be earned through performance.

If better opportunities present themselves, they will seek out another job. Millennials are more likely to accept a job that fits their lifestyle over one that pays more. They are environmentally and socially conscious.

They access & process info easily and adapt to change readily. Teams and peer input are important. Millennials prefer electronic communication – they want to build a "community" to make a difference in the world.

As mentioned previously, many Millennial males garden, and technology is used to gather people together for group projects such as : forest gardens, community gardens, developing brownfields – you name it – Millennials want to band together to make a difference in the world.

## Generation Z Age 21 and under

Experts are still analyzing data about Gen Z (also referred to as I-Gen). They are the first generation to fully utilize the tools of technology for communication.

Gen Z has never known a world without the internet or cell phones; younger Z's have never known a world without *smart* phones. Google has always existed. They take Wi-Fi for granted.



Gen Z spend between six and nine hours a day absorbing electronic media.

Many Z's are conservative and cautious. They are learning to drive later, less likely to use alcohol and drugs excessively. They also are heavily into video games and read actual books less than any other generation. They sleep less than any other generation.

Z's also want to make a difference in the world. Like millennials before them, they're keenly aware of justice issues concerning poverty, human trafficking, refugees, racism, and more. They want opportunities to have an impact, and they're likely to become generous givers to charitable organizations as adults.

Unlike previous generations, many Gen Z's believe that college may not be necessary for success.

Gen-Z are perhaps the most competitive generation ever: a generation that wants to set themselves apart from others. They are extremely entrepreneurial and many start businesses before they are teens.

They believe in tolerance and inclusion in a global world. They are always connected; global; communicate with images, and hyper aware of man and womenkind's impact on the planet. They multi-task better than any previous generation yet are easily distracted.

Research has shown that Gen-Z struggles with loneliness and depression more than any other generation. They are less altruistic and empathetic in a competitive global world.



## Super Mice Source: CNET

A group of Chinese scientists has created an injectable nanoparticle that provides superhuman vision. Researchers from the University of Science and Technology of China and the University of Massachusetts Medical School developed an "ocular nanoparticle" that can detect near-infrared light (NIR). They then injected it directly into the eyes of mice. Their study shows that the mice were given "super vision", allowing them to see beyond the visible spectrum, without any effects on their regular vision. Essentially, they created a Super mouse.

To enable the mouse eye to see in infrared, the research team developed a

nanoparticle that would shift the wavelength of incoming infrared light (at 980 nanometers) to a wavelength that was detectable by the cells in the eye (535 nanometers). The nanoparticle is so tiny that it can be injected into the inner eye where it attaches to the retinal cells -- those responsible for converting light to electric signals that can be interpreted by the brain. And by shifting the wavelength down to 535 nanometers, the mouse eye should be able to detect the once-invisible infrared light as a green glow.

## The Tertil – Room for Improvement

As mentioned previously, the Tertil is a yet-to-be released device that will roam the garden and eliminate weeds. Well, very small weeds. As it turns out. The Tertil has a small weed whacking trimmer located under the machine that trims off the small weed seedlings at ground level. Small cages have to be placed around other preferred seedlings or otherwise the Tertil will eliminate those in a mad frenzy. I think the developers of the Tertil should also develop voice technology to add a bit of spice to the Tertil. Examples are below:

"Hello, my name is Inigo "Tertil" Montoya, you killed my father, prepare to die!" (Sound of weed being shredded) from: The Princess Bride

The Tertil hovers over a weed seedling "You had me at Hello" (weed bits fly off in the distance) from: Jerry McGuire

*"Parting is such sweet sorrow:"* With an English accent – The Tertil mercilessly eliminates yet another weed seedling. From: Romeo and Juliet

"Frankly, Miss Weed, I don't give a damm" (Buzzing of weed whacker) ..... from: Gone with the Wind

In a Marie Kondo voice: "You do not spark joy" (Weeds and soil fly everywhere) .....



# The Hot 2019 Plant: Sedum Condensed from GARDENING WITH GEORGE WEIGEL PENN LIVE DEC 2018

Succulents in general have been extremely popular plants the past few years. What's shaping up as the hottest of the succulents for 2019 is anything in the sedum family – both tender and winter-hardy ones.

Sedums are hot because they're "easy keepers" and come in a lot of interesting forms and colors. They are also extremely drought tolerant. Sedums are superb on steep banks and for soil erosion control, but there are many other creative ways they can be used, including as living sculptures. In our area, perennial sedums such as 'Autumn Joy' are useful in containers and in the perennials garden or landscape to add fall interest and texture. Groundcover sedums are useful on banks for erosion control – or to provide a ground cover in a hot, sunny, dry area. Sedums also work very well to provide cover and interest in roof-top gardens.

# Hoggles



To Chinese Scientists: I am writing to protest your use of nanoparticles to make Super mice that can see at night with infrared super vision. In today's all-inclusive world - and as a Millennial cat - I would argue that cats also be given this super sight ability to make "an even playing field".

While my human caregiver might be greatly amused - I cannot stand the thought of a bullying taunting mouse making a mockery of the cat kingdom. With great concern: Hoggles

### One Day at a Volunteer Coordinator's Meeting

**Volunteer Coordinator:** "Hello everyone, Thanks for coming in to talk about next Sunday's volunteer event" "Hopefully you all received the text I sent describing what is needed"

Traditionalist: Is the text button the one that looks like a phone? Or the thing at the bottom that looks like a screw?

**Baby Boomer:** *"Well, next Sunday after church I have to take the grandkids to the zoo, and I have a garden club meeting, .....but I can come from like 1:00 PM to midnight ......no problem."* 

Gen Xer: "I can't believe you want me to come in on a Sunday" I have better things to do"

Millennial: "Can I invite all my friends?"

Gen Z: "Help yourself to these cookies .. My business "Cookies for Everyone - Big or Small" - grossed over \$50,000 last year... Check me out on Twitter .... hashtag Best Cookies EVA!" ....

Gen X : (sarcastically) "Oh... I am all a "twitter" about your cookies" ... rolls eyes...

Millennial: "Are the cookies gluten free?" ... and I am allergic to nuts ... any nuts in the cookies? "

Traditionalist: "When I was a child, I walked five miles to the store to buy flour from the grist mill to make cookies"

Donations to support the cause are accepted – any amount in the form of checks is fine to cover some expenses. Thank you to all who have sent donations ....they are greatly appreciated. Send to Ricky Kemery 5929 Lorman Court Fort Wayne, Indiana 46835

To subscribe to this electronic newsletter, send an email to kemeryr?@frontier.com - or text 260-431-6893. I will not share information with others. If you need a speaker for neighborhood association meetings, business groups, or other organizations, I will be glad to come and talk about gardening, landscaping or turf, the environment, sustainability. I will also diagnose plant disease or insect issues (for a small fee) Just contact me at 260-431-6893.

*Ricky Kemery will not knowingly discriminate in any way based on race, gender etc...though he does prefer a well-behaved cat over other creatures.*