the CUITIVATOR The newsletter for Master Gardeners serving Champaign, Ford, Iroquois, and Vermilion Counties

September/October 2019

IILLINOIS

Extension

COLLEGE OF AGRICULTURAL, CONSUMER & ENVIRONMENTAL SCIENCES

University of Illinois Extension provides equal opportunities in programs and employment.



5 Acre Farm Daylilies "Beauty For a Day" By Deborah McMillin

Photos by Deborah E. McMillin and 5 Acre Farm Daylilies (from website) used with permission

The July Master Gardener educational program was set in the agriculture belt of rural southern Champaign County; destination—5 Acre Farm Daylilies, located along a rural one-lane asphalt road off State Highway 45. As well as their own hybrids, the acreage grows hundreds of varieties



of hardy daylily beauties created by more than 150 American and Canadian hybridizers. With a spectrum of colors, choice of bloom size (1" to 10"), and height (from 6" to 6'), a complementary daylily could be found there for a gardener to add to a landscape that will provide not only "beauty for a day" but, with careful planning, every day from spring to fall.

In 1994, our hosts, Rod Kroemer and Jim Wuersch, bought what they called "trash property"—five acres with a house in rural Tolono, Illinois, in the midst of miles of corn and soybean fields. Over time they rehabbed the residence, cleared the property, and enclosed it with an unobtrusive electric fence to keep out the deer. The trees they planted are now mature and gave us much-needed shade from the afternoon sun as our group gathered for their introduction to the 5 Acre Farms Daylilies.

We may have been fortunate in the timing of our visit this year. The deep, long, winter freeze followed by excessive early rains in the spring had set back nature's timing nearly three weeks. The early daylily bloomers were blooming with the early mid-blooms, creating a kaleidoscope of color in the daylily beds on the day of our visit.

Rod and Jim gave us the backstory of how 5 Acres Farm Daylilies turned into an unexpected "retirement gig" and business. Rod had retired from school teaching and Jim has been an Urbana Police officer. The farm was an outgrowth from holidays, enjoying gardening, and collecting daylilies, their favorite flower. While vacationing in Maine in the summer, they would visit Valente Gardens in North Berwick and a friendship was formed with Ron Valente, a daylily hybridizer who also sold daylilies as part of his business.

In 2001, Ron passed away, leaving his business, including his own daylily introductions, to his wife Cindy. In 2004, when Cindy decided to sell the business, Rod and Jim decided to buy inventory as well as the Valente crosses that already had years and years of work that would be disregarded without their intervention. They realized there was plant material and seedlings good enough to introduce to retail, but that nothing would be done with them unless they took over the seedlings, evaluated them, and had Valente's name attached to them as new introductions. With the Valente family entrusting to them Ron's work and notes, plants were shipped from Maine to Illinois. This allowed them to continue Ron's unfinished work and start their new business in rural Tolono.



'Owls Head Light' (Valente-Kroemer-Wuersch 2019), is the last of the 54 daylilies to come from the hybridizing work started in the mid 1980's till 2001 by the late Ron Valente. The driving force behind the business partnership of 5-Acre Farms Daylilies for the last fourteen years was their desire to fulfill the legacy of their mentor and friend, Ron Valente.



Rod and Jim had prepared for our group of thirty Master Gardeners an entertaining primer on daylily maintenance and care tips that all gardeners can use, whether they have a few clumps of daylilies in their landscape or a hundred or more.



Daylily Maintenance and Care Tips Dividing Daylilies

It is time to divide your clump of daylilies when flower size diminishes, height drops, and bud count is reduced.

Rod exhibited the division process for us with a theatrical performance using a custom made sharp tool called the "Daylily Divider."

- Shear back the leaves before dividing, to a length of about six to eight inches. This allows the plant to grow new roots that can support the water needs of the foliage.
- Carefully dig around the plant.
- As you divide your daylilies, avoid going through the crown with any
 tools. Your goal, as much as possible, is to prevent injury to the plant, which can release pheromones that are
 a calling card for insects to come for an unwelcome visit.
- You can leave dirt on the clump. You do not need to wash it off before replanting.

Since daylilies propagate vegetatively, each division that you plant from the original will be reliable in keeping that cultivar's original characteristics.

Planting new bare root - or replanting newly dug daylilies

- The crown should be flat on the ground with good soil contact for the hair roots.
- Fill dirt back in very firmly around the plant.
- Rod emphasized that your planting should be flooded with water so there are no air pockets.

Planting shipped bare root daylilies

- Place in water overnight to hydrate the root system.
- A useful tip—If not planted the next day, hold them in water but change the water every other day and rinse
 off the root system before putting them back in the water.



Spacing daylily plantings

- For a Victorian Garden, plant on 24" centers.
- For "air and breath" in your garden, plant on 30" centers.
- For visible mulch between your daylilies, plant on 36" centers.

They did use peat when first establishing the garden beds as there was limited garden compost available at the time. Now that the garden beds are well established, they annually apply premium chip mulch (lasts for them slightly longer than shredded) from the Landscaping Recycle Center in Urbana. The mulch adds to the soil as an alternative to compost. Advice given was to use mulch that has had at least a year to go through the decay process and a pre-emergent, such as Snap Shot (which they use on newly laid mulch), to be rid of any leftover weed seeds if that is a concern. If you choose to use a commercial fertilizer, prepare it at half the strength recommended; you want to urge your daylilies to grow.

Maintenance tips

- Deadhead for tidiness and aesthetics; deadheading does not give the plant incentive to re-bloom.
- If a plant is a re-bloomer, it will have that genetic trait built into it independent of deadheading.
- A June re-bloomer will take seven weeks of rest and then bloom a second time.
- At least 1" of water a week is key for a re-bloomer to do well.
- For winter clean-up, after the daylily no longer has blooms, cut the fans back with a "ponytail" cut about 5" to 6" above the ground and mulch.

Daylily rust (Puccinia hemerocallidis) is a problem in USDA Hardiness Zones 7 to 10, where it overwinters with the milder conditions. Typically daylily rust does not survive winters in our USDA Hardiness Zones 5 and lower.

We have had a dry, hot summer and 5 Acre Farm Daylilies, in the southern part of the county, is not on the Mahomet aquifer. Their 90-foot well would not support an irrigation system for the size of their garden. They do have the ability to haul water, but with the overabundance of water we have had this past spring they need only to do select hand-watering of key plants—a testament to the hardiness of the plants in the beds.

A unifying motif in the daylily beds was artistic metal yard art from the late Jeff Chilton of Philo. A long-time welder and metal fabricator, he created geometric sculpture, often in designs shaped of molecules. Rod and Jim told the story of Jeff, who just showed up one day with several pieces of his outdoor art in his pickup truck. They agreed to display the art to sell in the garden as they were soon hosting the regional meeting of the American Hemerocallis Society. His "molecule" art sold well, so Jeff continued to bring his art to the garden. Rod and Jim now sell the durable weather-resistant garden art for Jeff's widow, Athan, who has continued to bring some smaller "rusties" pieces that are also displayed among the daylilies.

After Rod and Jim's presentation we were given the opportunity to note any daylilies we might want to purchase for our own garden this fall. With colors of near pure white to deep crimson plus blends and multi-colored patterns, it is





appropriate that the genus name Hemerocallis, is derived from two Greek words meaning "beauty" and "day" referring to the fact that each flower lasts for a day. What a fitting name for a flower that gave us such pleasure on our July trip to Five Acre Farm Daylilies.

For the Serenity Garden (within the Master Gardener's Idea Garden), our group will choose an appropriate colored daylily suitable for a meditative moment for the numerous visitors that pass through the public garden. On a humid July day, I found a touch of "Beauty For the Day, "in the "backyard" of Champaign-Urbana that offers the opportunity to pass along the elegance of a flower whose story lasts for more than a day.

Visit Jim and Rod's inventory at http://www.5acrefarmdaylilies.com

Address: 5-Acre Farm Daylilies 1578 County Road 300N Tolono IL 61880-9719

Phone: 217.621.8474

Email: rodk@5acrefarmdaylilies.com

Live Webinar - Fall Gardening

September 17 @ 1:30 p.m. CDT (via Skype for Business)

Gardening doesn't have to end when the calendar turns to fall. Join Ken Johnson, horticulture educator to learn about the crops that can be grown as well as other garden and yard activities to do in the fall.

Live Webinar - Tree CompartmentalizationOctober 8, 2019 @ 1:30 p.m. CDT (via Skype for Business)

Just think about the amount of tree energy expended to seal over pruning cuts and compartmentalize rot and decay within the boles of our urban trees. University of Illinois Extension Horticulture Educator, Ryan Pankau, will review the processes at play when trees perform the amazing feat of blocking pathogens with their natural defense mechanisms.

Live Webinar - Gardening for Birds December 3 @ 1:30 p.m. CDT (via Skype for Business)

If You Plant It, They Will Come...A Plan to Attract Birds; i.e. Gardening for the Birds is not just a program with a plant list but a thoughtful way to incorporate birds, and all their joy, into your garden. Join Peggy Doty, Extension educator, to consider not only the bird's needs but also the needs of you, your family, children or grandchildren, pets, and of course the current plants in your garden.

Register at go.illinois.edu/fourseasons.

Preparing the Ornamental Garden for Winter Tuesday, September 24 @ 7 p.m.

Champaign County Master Gardeners present *Preparing* the Ornamental Garden for Winter with guest lecturer, Peter Lichtenberger, at the Champaign Extension Auditorium, 801 N. Country Fair Drive.

In this free program, Peter Lichtenberger, Allerton Park grounds crew supervisor, will provide guidance on how to prepare your gardens for winter. Peter, who holds a degree in horticulture from UIUC and is an arborist certified by the International Society of Arboriculture, will discuss plants to cut back, those to leave standing for their own good and as "housing" for beneficial insects, and those that benefit by being divided before winter. He will also describe fall fertilizing, mulching, and other best practices to ensure a vibrant garden in the coming season.

The Journey from Hobbyist to Hybridizer

By Deborah E. McMillin

Photos by Deborah E. McMillin and 5 Acre Farm Daylilies (from website)

used with permission

Rod Kroemer and Jim Wuersch, hosts for the delightful Master Gardeners day trip to 5 Acre Farm Daylilies, and described in my previous article, "Beauty for a Day," graciously treated me to a private tutorial on daylily hybridization. I learned how they introduced new "beauties," as they call them, that include improved or new traits. Their first "Christmas" daylily was a participant with Jim and Rod over a time spam of five years of patient and diligent work.

Jim said that it was with encouragement from others that he learned to hybridize, starting with the work begun by their mentor, Rod Valente, whose work they continued after his death. Jim has been able to move his hybridization program forward another generation by incorporating Valente's genetic material (and others) into his own breeding program.

Jim pointed out to me an example of this—'Junie's Starburst,' a Wuersch-Kroemer introduction that is a cross between 'Look Into My Eyes' from the Valente Collection and Baili Watercolor from the Stamile collection.



From Jim's viewpoint, before you start the physical process of pollination, every hybridizer has to develop a target, concentrate on a particular trait of a daylily, and have a solid focus on that niche. His niche is on big flat reds and ruffled edges. Even though his heart lies with reds, he does get purples he will be introducing since they are in the same color range. There is no way to tell what the plant is going to give them genetically and what it is predisposed to pass along (dominate genes being easier than recessives), so for this duo their plants are their partners.

Currently, one-half to two-thirds of the daylilies being bred industry-wide are tetraploids, which produce a sturdy, thick stem, heavier flowers, overall a larger plant that holds up to weather conditions better than diploid daylilies. Daylilies do not easily pollinate themselves nor are they prone to insect pollination because their anthers are so widely spaced from the pistils that insects are not interested in them. But pollen can manually be taken from one flower and dabbed onto the pistil of another bloom.





Rod and Jim use round string disc tags (left) that are numbered with the cross and a hybridizer log (with sequential numbers used) where crosses are recorded as pod parent first and pollen parent last. The tag is looped around the bloom below the flower that has just been pollinated. If the pollination was successful, a small green seed pod will form at the base where the bloom was. In about 6 to 8 weeks the seed pod will be mature and the pod, now brown, will start to crack; the seeds are now ready to be harvested. Each seed from that pod is lined out because each one is going to have a different genetic outlay and a different possibility, even though from the same parents.

Each seed is placed in a 1x2" plastic bag with a seal on top and the cross number that will track the seedlings for the next several years. The baggies go into the crisper drawer in the refrigerator for an artificial winter. Jim has found that their percentage of germination increased to 80% when seeds are cleaned, put into plastic bags, and into the crisper drawer with very little delay.

In February, the seeds are planted in one-inch cells on heat mats at 70 degrees. Their "modest" greenhouse can take up to 2,000 seedlings. Jim commented that when you are dealing with seeds that you have bred, you do not see the uniform germination that commercial growers obtain with their seeds. He calls it dealing with "wild cards."

In June, year 2 of the seedling's life, as many as 1,500 to 1,600 seedlings looking like blades of grass, are planted 9" on center in the juvenile beds. Year 3, there may be a smattering of blooms, but at that time nothing is considered reliable. After the third year breeders can start to evaluate each plant and make some choices. If seedlings have inferior traits—poor bud count, muddy colors, not opening correctly, have bloom in the foliage—those seedlings are not worth continuing. The few plants that show positive potential are dug out to be put in the Select Garden near the front of the property where they can be monitored closely and given ideal conditions to get the clumps to multiply as quickly as possible.

The fifth year is the final year of evaluations. By then, if they have not been considered worth growing on, they either meet the mower or the compost pile. By the end of the fifth year, the genetic life of a daylily has been set. There will be just a few seedlings out of the original cast of 1,500 plus that will have their numerical number replaced with a name and, once they have a minimum of ten fans, introduced to the public.



In 2010, 'Prairie Evening Star' was their first hybrid daylily registered under their names, Kroemer-Wuersch. I asked Jim how he felt after his first five years as an "amateur in genetics" (as he calls himself), making this daylily available to the public. He compared it to "Christmas every morning, because you never know what you are going to get when your seedlings start to bloom." He said that he walks the seedling beds every morning to see if anything looks decent. After seeing so many seedlings with inferior traits, "when you see a plant that has good bud count and branching plus good color saturation and blooms at a reasonable height, you know it immediately; it really stands out. It is incredibly exciting...when you hit the right plant, especially the first one." But, he finds it scary, too, because he may like it but that doesn't mean others will like it also.

Jim may consider himself an "amateur" but he has a small program to do broken patterns. It is a real challenge since it requires a lot of line breeding. He has a large seedling class; 3rd generation of line breeding he just planted. It will be two to three years to see the results. At that time he will seriously evaluate to determine if it is worth continuing since it is cumbersome to produce the numbers that are necessary.

To be successful in the business presenting your own hybrids (the duo now have 20 introductions), Jim stated that it is important to acknowledge the customer opinions and pay attention to any reaction and feedback. Jim and Rod find that the daylily clubs that come to visit are their most important judges. The members of a daylily club grow

daylilies in their own gardens, have looked at daylilies from other hybridizers and they do have a good eye. When a daylily club gives an opinion or is drawn to one of their cultivars, that is important to them.





Daylily hybridizers certainly have a sense of humor. They may name their new introductions after spouses and family members, musicians and conductors, dogs and cats, friends, customers, and places on the map, to name a few.

Ron Valente named one of his hybrids after a horse, 'Libby's Trail'. 'Joe and Flo,' one of their three new introductions this year, was named for Jim's parents, Joe and Florence. 'Tim's Choice,' a second introduction this year from Jim and Rod, was named after Tim, a customer who came to the garden frequently with his wife. When Tim first saw the flower he said he "really, really liked it."



'Tim's Choice' (Kroemer-Wuersch 2019)

A daylily that is bright gold, yellow-eyed, light-green throat and ruffly with browns and reds—the colors of a sunrise—was approvingly noticed by several of us. Aptly named 'Prairie Summer Sunrise,' it was introduced by our host duo in 2018. It was a favorite of mine, so I ordered it as a birthday gift to be shipped this fall to my daughter, Cara, for a sunny spot in her rocky garden in Arlington, MA.

Deep red is one of my favorite colors. Take away for my garden was 'Smugglers Passion,' a black-red-velvet with a white edge.

Jim and Rod's goal at 5 Acre Farm Daylilies is to get their daylilies out into people's gardens where they can enjoy them, not just for a day, but from year to year.

Visit Jim and Rod's inventory at http://www.5acrefarmdaylilies.com.



'Prairie Summer Sunrise' (Wuersch-Kroemer 2018)



'Smuggler's Passion' (Branch-Natte 2004)