

- THE ROUGH GRAFT -

NEWSLETTER OF SOLARIS FARMS, REEDSVILLE, WI



Summer Recap 2020 | Vol. I , Iss. 3



It has been a whirlwind season. It seems like just yesterday we were waiting for the peony buds to open, and here we are in the midst of August. Some of our daylilies are still blooming, but the farm is now closed to visitors. We were happy to see many of you during your appointments this season, and we hope your acquisitions are getting acclimated to their new homes. Currently, we are getting ready for peony root harvest, and woody peony grafting is well underway. Thus, the online catalogs have been closed until next year. Even though you'll have to wait until January for those updates, there are still plenty of things you can do in your garden in the meantime to keep you occupied. In these last several weeks of summer, there are many activities we do here at Solaris, and you can do in your own garden, too, that will allow you to enjoy the remainder of the season.

INSIDE THE SUMMER EDITION

We've Been Busy - 1

Transplanting, Reorganizing and Propagating - 3

Seeds for the Future - 5



WE'VE BEEN BUSY

We have implemented many changes at the farm this year that we hope will make us more efficient and better at helping you bring your gardens to their fullest potential.

This year has been full of changes for us, some of which were certainly due to the pandemic, but most of which were planned with some degree of foresight. Likely some of the biggest developments you may have noticed were our new and streamlined website and the advent of by-appointment visits this summer. While we are still making minimal adjustments on the webpage, this seemed to be a great advantage to everyone. Many of you opted to order plants online this year, and we are happy you took advantage of this much improved aspect of our business. At the same time, those of you who opted to visit the farm to pick up plants onsite likely noticed more individualized attention and better service this year. We found that the appointment scenario worked extremely well, as serving customers spread out over a larger time span allowed us to devote more time to each one of you. As a result, we are planning on continuing this approach to visiting the farm for 2021. Keep an eye on our website as spring approaches to book your visit.

Another change we have decided to make is to discontinue containerized plants entirely. The lily, including martagon lilies that were formerly in pots will still be among our offerings for 2021, however these will be dug out of the field or the raised beds they have been planted in. The plants you receive will be much healthier at the time you take them home, and we believe you will ultimately be much happier with not only their initial appearance, but also their improved vigor once transplanted.

Unfortunately, this does mean that the clematis we formerly offered will be discontinued, as holding these over in-ground is not feasible. If you are looking for something unique in the future, we highly recommend Donahue's Greenhouse for these vines - it is one of the largest suppliers of clematis in the United States. These can be found at donahuesclematis.com.

We found that visits by appointment worked well, and are planning on continuing this approach in 2021.

Other changes here largely involve infrastructure. Some of you who visited in previous years and who stopped by this summer may have noticed the old machine shed has undergone a facelift. The new metal siding and additional windows has closed off the interior to adverse weather conditions and let in a significant amount of additional light. These modifications together with an interior clean out and the addition of an enormous fan have made this structure a perfectly comfortable workspace and business hub for almost all farm-related matters.



Nate working on the machine shed exterior



WE'VE BEEN BUSY

We have implemented many changes at the farm this year that we hope will make us more efficient and better at helping you bring your gardens to their fullest potential.

This year has been full of changes for us, some of which were certainly due to the pandemic, but most of which were planned with some degree of foresight. Likely some of the biggest developments you may have noticed were our new and streamlined website and the advent of by-appointment visits this summer. While we are still making minimal adjustments on the webpage, this seemed to be a great advantage to everyone. Many of you opted to order plants online this year, and we are happy you took advantage of this much improved aspect of our business. At the same time, those of you who opted to visit the farm to pick up plants onsite likely noticed more individualized attention and better service this year. We found that the appointment scenario worked extremely well, as serving customers spread out over a larger time span allowed us to devote more time to each one of you. As a result, we are planning on continuing this approach to visiting the farm for 2021. Keep an eye on our website as spring approaches to book your visit.

Another change we have decided to make is to discontinue containerized plants entirely. The lily, including martagon lilies that were formerly in pots will still be among our offerings for 2021, however these will be dug out of the field or the raised beds they have been planted in. The plants you receive will be much healthier at the time you take them home, and we believe you will ultimately be much happier with not only their initial appearance, but also their improved vigor once transplanted.

Unfortunately, this does mean that the clematis we formerly offered will be discontinued, as holding these over in-ground is not feasible. If you are looking for something unique in the future, we highly recommend Donahue's Greenhouse for these vines - it is one of the largest suppliers of clematis in the United States. These can be found at donahuesclematis.com.

We found that visits by appointment worked well, and are planning on continuing this approach in 2021.

Other changes here largely involve infrastructure. Some of you who visited in previous years and who stopped by this summer may have noticed the old machine shed has undergone a facelift. The new metal siding and additional windows has closed off the interior to adverse weather conditions and let in a significant amount of additional light. These modifications together with an interior clean out and the addition of an enormous fan have made this structure a perfectly comfortable workspace and business hub for almost all farm-related matters.



Nate working on the machine shed exterior

We have constructed root storage shelving for this area as well, multiple processing, washing and packing tables, storage solutions for packing supplies, and these are just a few items I can recall off the top of my head. The hope is that all of this will help us be more efficient than ever before, particularly this fall when we begin to ship peony orders. This harvest season will be the test, and I will be sure to report back to you after it is all over to let you know how it went (Nate and I are very optimistic!)

Another significant change this year has been made to our woody peony grafting bed - part of our method of propagating these plants for future sale. In previous years, these grafted plants were arranged in small, cramped rectangular plots that worked fairly well, but certainly were not the perfect solution. Digging in and harvesting these beds once the plants reach three years of age was not the easiest task, nor are they easy to search if one needs to locate a specific cultivar. This year, Nate came up with a new arrangement, and I think it is going to work out perfectly. Long rows of two, that are easily serviced by the tractor, have been planted out with more grafted plants than we have ever made in previous years. We will see how they fare this first season, but I have a feeling they are going to grow exceedingly well with their additional space on each side.



Grafting bed rows in what was formerly the parking area, and freshly grafted plants laid in the furrows before being covered.



Siding the machine shed with metal



I suppose you could say that I myself am a new addition to the farm this year (and so is this newsletter), but I won't go into extreme detail there... I just hope my additional set of hands is proving to be useful and that I can help Solaris Farms continue to grow and prosper for many years to come.

Before we get to those "years to come", though, we have a few more solid weeks of summer left, and, while the catalog has been closed and we are mostly unreachable because of grafting and harvesting, read on to get a few ideas about what you can do in your own garden to pass the time and enjoy the warm weather while it lasts!



THE TIME OF THE SEASON

This is one of the best times to begin evaluating your garden, reorganizing, transplanting, and propagating plants that you might want more of.

It has become apparent to me over the years that one of my favorite things to do with my garden is rearrange it. As a young gardener with perhaps fewer growing seasons under my belt than some, I have occasionally found myself guilty of poor planning regarding plant spacing. This is often due to the fact that I have so many plants already, and am always trying to fit in more (I am certain many of you can relate). As my garden changes over time and plants grow larger, I find myself needing to move things and clean out plants that I am perhaps less fond of, and right about now is actually one of the best times of year to begin engaging in this activity. With many of our favorites done blooming for the year, and many plants beginning to go dormant, it is prime time.

Of course, if you grow daylilies, these plants can be moved at almost any time of year without issue. I have found that I like to grow mine in groupings of three scattered throughout my peonies and other plantings. Sometimes, though, clumps grow large enough that this organizational scheme becomes ambiguous,

eliciting a chaotic cottage garden rather than a cleaner modern aesthetic. If you are going to do some daylily transplanting, and your target is a large clump, your plant will perform better for you if you divide it into several single and double fans planted back into a single hole, rather than moving the clump wholesale - they do like a little room to breathe. If you have surplus, you can plant these in another area of your garden, give them to a friend, or just toss them on the compost heap to recycle them. Your plant will be happier that it has the additional space, and you'll see better performance in following years.

If peonies are on your radar, this should be handled a little more carefully. At this point, if you can afford to wait just a few more weeks to move them, do so - we generally advise gardeners move peonies in autumn, once the plants go dormant. They will tolerate being moved just a bit earlier, though you might see them pout the following year, with less than ideal performance as they recover.

For herbaceous and intersectional peonies, trim back the foliage to the ground just as you would do for fall cleanup, then begin digging a trench around the perimeter of the plant about a foot away from the crown area. Next, begin to drive your shovel into the trench down and angled slightly toward the center of the plant, gently prying. You may notice a bit of root breakage, and though this is not ideal, if kept to a minimum, the plant will hardly notice.

We've dug up a few plants this year already, and have noticed that the peonies - both woody and herbaceous - already have well-developed eyes, or the beginning shoots of next year's stems located on the crown tissue. If you've dug up your plant and these are not present, it was likely too early, and not quite ready to transplant.

This same digging technique can also be employed with woody peonies, and we advise, too, that if you set out to move a woody peony, one should also cut back the stems significantly. Many are wont to preserve the above ground growth on these plants (particularly because it takes many years to grow to any significant size), though you will find that a plant cut back will be much more vigorous in its growth in following years than one whose stems were maintained through transplant. Woody peonies will send up new growth from underground, or basal shoots, that are healthy and full of vigour, and will set your plant off on the right foot (root?) for years to come.



Daylily divisions ready for replanting

For more recommended reading on culture and care of all of these plants, be sure to visit solarisfarms.com/culture-care. There, you'll find more information regarding planting, site selection, and more.

Much like daylilies, peonies can be divided, though it often proves to be a much more laborious process. If you are looking to split your plant up into several pieces, you can look for natural weak points on the crown that would lend themselves to an easy split. These are often easy to see on herbaceous plants, and less so on the tree peonies, though they are sometimes present on these plants as well. It is in your best interest to look for ways to divide the crown up so that there are several eyes on each division, as well as enough root material to support it, and you will likely need to slice the crown apart with a sharp utility knife. The woody peonies should be divided in much the same way, however, you may find that you need a saw to do the work of splitting - labor intensive, indeed!

While you have your peonies out of the ground, you will also want to check for signs of rot and disease in the crown tissue or on the roots. Most often, you will find soft black spots that are resultant of too much water or poor drainage around the plant. Some cultivars are more susceptible than others. This rotting tissue may be cut away with a knife - do so until you find healthy white tissue, and you may also want to soak your plant in a mild, diluted bleach solution before planting back in the ground. We generally use about a gallon of bleach in a 25 gallon barrel, though one could certainly use this ratio on a smaller scale. Soak the plant for thirty minutes to an hour, and then rinse with clean, fresh water. You'll likely notice a color change in the roots (this is normal), and any residual decaying tissue can be cut away with a sharp knife.

Replanting is a bit different for each type as well. Just be sure to follow the old rules of thumb: Plant herbaceous peonies with a distance of around two inches between the tips of the eyes and the surface of the soil, and woody peonies deeper, at a depth of at least six inches in a hole large enough to comfortably accommodate the root system. Your plants should be happy in their new locations if they are carefully chosen, and perhaps in several years could be divided again to generate even more plants for your garden!



SEEDS FOR THE FUTURE

Collecting and growing seeds from your plants can be an enjoyable and cost-effective way to increase and diversify your collection.

Propagating your plants by germinating collected seed can be an easy and rewarding activity for any gardener... it can also be a slippery slope that leads to the world of dedicated hybridizing.

Even if you aren't out in your garden actively pollinating, though, there is a good chance that what you grow will offer *open pollinated seed* - a phrase horticulturists use for any seed produced via naturally occurring pollinating agents, such as insects, animals, or weather phenomena.

With just a little knowledge and patience, you will be well on your way to diversifying your collection using plants you already own.

Dry seed heads, or pods that form on stems following flowering can be collected and opened to reveal seeds that may yield some very interesting offspring. If you are growing plants from Solaris, either daylilies, peonies, or even liliium and clematis, the offspring these seeds produce may look completely different from their parent plant. This is because many of our offerings are hybrids, meaning they have a diverse genetic background. When these plants produce offspring, particularly when crossed with other hybrid cultivars, the expression of genes in that offspring will likely be somewhat different from how they were expressed in the parents.

Without getting overly technical, the outcome is this: the plants you grow from hybrid seed will be unique individuals that only you have in your garden, that is, unless you decide to share them with someone else. If they are of high enough quality, you may even have the option to name and register them, too! But first, we need to grow them. The process by which our desired outcome is achieved is not overly complicated, and with a little bit of knowledge and patience, you will be well on your way to diversifying your collection using plants you already own.



Dried daylily seed heads with seed

As we head into the last weeks of August and first weeks of September, you may begin to notice plants in your garden developing seed heads in locations where flowers initially formed. At this point, the seed heads of some plants may already be brown, dry, and cracking open; if you grow early blooming peonies, their seeds may have already spilled out onto the ground by the time you are reading this.

Other plants that you might have in your gardens from Solaris, though, will still be in the process of ripening. The herbaceous hybrid peonies will be ready to collect fairly soon, followed by woody peonies (*rockii* and *suffruticosa* first, then *lutea* hybrid), and daylilies should be ripening around that time as well. If you aren't sure if the seeds are ready for collection, a good rule to follow is that if the pod appears brown and dry, it is ready. Sometimes the seeds are ready a bit earlier, but if this is your first go at collecting and growing seeds, stick to pods that look like the dry daylily seed heads pictured above.

Seeds that are ready will appear dark brown or black, or sometimes reddish-brown or purple. Seeds that are viable, or that are likely to germinate and grow will feel hard and offer resistance under pressure - give them a squeeze with your fingertips when you are collecting to test this. Seeds that feel soft are not viable, and should be cast aside. Collect the seeds, and allow them to dry indoors for a period of time - often, you'll find that seeds from freshly opened pods may still be a bit sticky. You can also collect whole seed heads by detaching them from the plant and allowing them to further dry in trays or in bowls, then separate seeds out later. Once seeds are dry, place them in paper bags or envelopes with labels if you care to keep track of the parent plant, until you are ready to plant.



Daylily seeds sprouting indoors - note the white radicles, or first root structures of the plant, and the green cotyledons, or first leaf structures above.

We believe Mother Nature does a much better job with this process than we often do...

Many people prefer to start their seeds indoors, and there is a multitude of practices which employ things like seed trays, grow lights, refrigeration, vermiculite, wet paper towels, etc. At Solaris, however, we like to keep things fairly straightforward. We forego starting seeds indoors for a number of reasons, most of all that we believe mother nature does a much better job with this process than we often do. The process and timing is a bit different for each plant, but all are germinated outside and in the ground.

Daylilies are by far the easiest to grow. Now that you've collected your seed and have it stowed in paper bags or envelopes, place them in a cool dry place and leave them there until spring. Once winter has passed, and the last frost has occurred plant the seeds directly in the ground in a shallow furrow, or trench. Keep the soil moist, and in about one to two weeks, you should see your little seedlings emerge! Continue to care for them through the summer, keeping them watered (you may want to provide a bit of mulch for moisture retention), and you may see the first flowers the following year.

Peony seed can be planted in ground as well, though the timing is just a bit different. Peonies are coaxed out of dormancy by going through a cold period (some must endure this twice), and as a result, you'll want to plant your peony seeds right away in the fall after you harvest them. The planting technique is not terribly different from what was described for daylilies, though you may want to amend the soil to ensure proper drainage. This can easily be achieved by tilling in a mixture of sand, gravel, and or vermiculite until it becomes loose and easily worked through. These seeds can be planted in a shallow furrow as well, no deeper than an inch.

To ensure even greater drainage, we often plant our peony seed in specially prepared raised beds or boxes, that are filled with this loose soil mixture. Once the seeds are planted, the boxes are mulched for the winter.

You can try this method, or plant directly into amended soil in the garden bed - either method should work out for you. Additionally, do not be discouraged if seedlings do not appear in the following season. Recall that some seeds need to go through two cold periods before germination is triggered (something often referred to as a double dormancy) - you may see seedlings sprout in that location two seasons from now... remember I said you would need just a little knowledge *and* patience! I should note too, that if you are attempting to grow peony seed, this method is acceptable for most cultivars in cold climates. The only peonies that need a little more attention are the lute hybrid woody peonies, and I may discuss this in a more in-depth article at a later date (if you aren't sure, you can check if your woody peony is a lutea hybrid by looking it up in the American Peony Society registry: <https://americanpeonysociety.org/cultivars/peony-registry/>)

Once the seedlings have germinated, you may find that you will want to move them to a more suitable location where they can grow to their full size. This can either be done during the summer following germination, or any following year.

Interested in acquiring more seed? Consider joining the American Peony Society, North American Rock Garden Society, or local Hardy Plant Society to participate in seed exchange programs.



Seedlings of *p. tenuifolia* emerging in a raised seedling bed.

Again, the daylilies are not fussy and can be moved at almost any time, but if moving the peonies in year two or three, it is often best to wait until autumn when the plants go dormant for the winter. This will also disrupt the amount of time to first flower - a period that is often at minimum three to four years. We've found that if you do move the little first year plants, they are extremely hardy, and will tolerate being moved at any time, and this will also not tack on additional time to first flowering. Just grab up some of the soil around them along with the root system and plug them into their new home, and you'll likely see blooms in another couple of years (remember patience?).

If you find that you have a knack for growing plants from seed and want to try your hand at growing even more exciting plants, you can find a number of various seed sources online. A great way to get your hands on diverse peony seed is to join the American Peony Society. The group has an online seed exchange program through which a large number of seeds are made available, often from advanced hybrids, species, and rare or hard to find cultivars. Other plant societies offer seed exchange programs as well, such as the North American Rock Garden, and the North American Hardy Plant Societies. Many of these groups offer other resources, too, including informational seminars for members that will help you learn other germination techniques, and processes unique to other species you may be interested in growing.

We hope that you will be able to get outside and enjoy as much of your gardens as you can as we move into autumn. We will be extremely busy over the next several weeks finishing up woody peony grafting and digging up plants for catalog orders. Thank you all for a great season, and we will see you on the other side. Until then, take care.

- Jordan Kabat

- Nate Bremer