

The Green Hill Gossip

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The search for true *H. sieboldiana*

By Bob Solberg

Now give an everchanging lecture entitled "Travels with Bob." I like to put you in the vacant front seat of my old truck and just go where we go, see what we see, and talk hostas and whatever else we run across. Frequently it is visits to hosta hybridizers and photos of hostas without names that may or may not ever see the rooting jars of a tissue culture lab. Sometimes it is hosta conventions displaying perfectly grown clumps of rare hostas that I have never seen. This time it is a trip to Japan to see hostas in the wild!

Now before we get started, just a short aside. How do you feel about spending an evening with friends just back from a visit to Tuscany when suddenly they ask, "Would you like to see our photos of the trip?" I will pause while your emotions subside...

Before digital cameras this usually meant removing a photo album from the end table drawer and slowing looking at each photo with appropriate commentary. Today, it means hours of HD pics on the big screen TV and a short nap.

Without the limitation and expense of film, every detail of every trip is recorded in at least triplicate. And so, it was on our Japan trip. Between Mark Zilis, his son Andy, and myself we took maybe 4500 photos, not to mention the 15-minute video Mark took as we climbed a very narrow winding road in our rental car along a raging river to the top of a mountain to see *H. kikutii* var. *kikutii* in the pouring rain. We photographed strange animal crossing road signs, little trucks, tunnels, roof tiles, you get the idea. Why not, the film is free.

Personally, I have yet to see all of Mark's photos and I went on the trip. I'm sure you would be satisfied seeing just a couple of the wonderful photos of the probably 500 he took of the vine *Campsis grandiflora* in full bloom. Me too, but remember I saw all this live and in person. The point of this aside is that I realize reliving where you have been, slowing down the time that flew by so quickly with photos when you return, is much more interesting for the traveler than his guest. A little goes a long way. To that end I will not share with you the French fry tale that became a reoccurring joke for the rest of the trip.

So, let's go to Japan. This was not just a sightseeing adventure for me, it was a scientific mission, a quest for the Holy Grail of hostas *Hosta sieboldiana*. As I wrote in my article in the last issue of *The Hosta Journal*:

"The focus (of the trip) was on Japan's largest hostas, all closely related species, *H. montana*, *H. sieboldiana*, and *H. fluctuans*. We also saw *H. sieboldiana glabra* at the northernmost end of its range.

That said, there were several questions that all of Hostadom would like answered about these hosta species and their relationship. In recent times there has been some question as to whether these are really separate species or



"That's the one!" *Hosta sieboldiana* in Japan.

maybe all forms of one big species that is still in the process of evolving. In addition, even the actual existence in the wild of what we call *H. sieboldiana* and to a lesser extent, *H. fluctuans* has been doubted. We wanted to learn what Japanese collectors thought about their existence. I have always felt the best way to attack these questions was with boots on the ground. Herbarium specimens tell one side of the story but seeing hostas at home is believing.

My goal was threefold. First, I wanted to study the relationship between these three species and to a lesser extent, *H. sieboldiana* var. *glabra*. Are they biologically isolated or do they freely hybridize? Second, to see the plant the Japanese refer to as *To Giboshi*. And finally, to see if there are hostas in Japan that look like the European plants named *H. sieboldiana*. Is the *H. sieboldiana* we know in our mind's eye found in the wild?"

To make a long story short, yes, we did find true *Hosta*

sieboldiana in the wild, at least one large clump that looked all the world just like the ones in Europe and in our gardens. We saw *H. montana*, *H. fluctuans* and *H. sieboldiana* var. *glabra* in different habitats in northwestern Honshu. Six months removed from then and having spent my winter reading about the speciation of Darwin's finches and the 40-year study of Peter and Rosemary Grant, I wonder how all this came to be. Huge hostas on rocks similar but different enough to have separate names in Japanese and Latin.

Based on the work of N. Fugita in the 1970's in Japan this group of "species" are all lumped into a single species, called *H. sieboldiana*, because of the group it is the oldest name. Our guide and now my friend Hiroshi Abe believes like most Japanese that they are all populations of one very large species that virtually extends the entire length and width of Japan. Their Japanese names, *H. montana* is *Oba Giboshi*, the "large-leaved hosta," *H. sieboldiana* is *To Giboshi*, "hosta of old," and *H. fluctuans* is *Kuronami Giboshi*, "dark, wavy hosta" are still used to distinguish the differences in those hostas.

Let's just close our eyes and think of it happening this way. First there was *Oba Giboshi*, a widespread hosta that colonized the islands of Japan. As time went by different populations of this single species began to become different along the edges of its range as they adapted to local habitats and became biologically isolated in different river valleys. Their gene pools became different enough that we could see them as different hostas, phenotypically different, having distinct characteristics, so we gave them separate names, *To Giboshi* and *Kuronami Giboshi*.

We have all heard of Charles Darwin theory of survival of the fittest, the driving force behind the evolution of plants and animals. The question that puzzled him most was the origin of species. In our case, why are there 40 something hosta species in the wild and how did they arise. Darwin's idea is that all speciation, the formation of new species, follows the pattern of a tree. The first hosta to appear, (we think this happened by the chance crossing of two different ancient plant species in nature, because of the very high chromosome number in hostas), then "branched" out to become many different species as it spread to new islands and habitats. Adaption or specialization to their new homes created different plant sizes, bloom times, leaf shapes and many

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FAQ

I am a very private person. My longevity in Hostadom has fortunately or unfortunately granted me a small measure of celebrity and I am now, I guess because I am turning gray, frequently asked about my personal involvement with hostas. That simply means that I get asked these seemingly simple questions that really have several paragraph answers. As promised again this year we dig a little deeper, just a little.

Q. What are your best hostas?

A. This is a tough one? How do you measure "best"? Is it my most popular hostas? Is it my best sellers, yes there is a difference? Maybe it is the ones of which I am most proud or maybe just the ones with which I have a special relationship. Is your list the same as mine?

My goal in introducing hostas has really been twofold. I have hybridizing goals and marketing goals. I want to produce hostas unlike any we have seen before. That is why most of my seedlings are solid colors, varie-

gated hostas to me all look a little like cousins, maybe even a little inbred. I want to hybridize hostas that have new colors, red leaves and scapes, fragrant flowers and twisted leaves. My best hostas all have one or more of these traits.

I am also a nurseryman, I own a hosta only nursery. The successful marketing of my hostas gives me as much pleasure as hybridizing them. I want to produce great new hostas and have them grown by not just hosta collectors but the general gardening public, worldwide. I want to produce hostas that make their way into the Top 25 Popularity Poll and win awards because they are widely grown and loved.

I have been fortunate to have some success at reaching these hybridizing and marketing goals. 'Guacamole' has become a hosta name that almost every gardener recognizes. It not only is a great growing, beautiful fragrant-flowered plant but it has a good name that reflects the colors in the hosta and is now found almost everywhere that hostas are sold. 'Curly Fries' also has taken Hostadom by storm and has given me a lot of satisfaction because it is a seedling of mine and not a sport. I am very proud of that little hosta.

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Hosta sieboldiana in the wild

The best way to grow hostas?

Editor’s note: This article first appeared in the August 2019 issue of the “Gossip Jr.” our eight-page newsletter. It is available by subscription, \$10 per year or 3 years for \$25.

I have written many articles on how to grow great hostas. I have suggested how you should amend your soil, the proper means of fertilization, and that frequent irrigation is a must. I have also lectured on the advantages of container grown hostas, even giving recipes for the most productive soil mixes. I grow thousands of hostas for a living, I should know a little about growing the best hostas. Now I am not so sure.

We all know that hostas are shade plants that like rich, well-drained soil. We know they grow well in the northern US but not well where palm trees grow. We know if you want the biggest hostas to get really big you must give them copious amounts of water and maybe a little liquid fertilizer cocktail every now and then. It is in every hosta book ever written and on the Internet, too, so it must be true. But now I am not so sure.

After 20 years of wishing and hoping and two or three failed attempts, I finally set foot in Japan last July, the home of hostas. I had seen all the photos before of hostas in the wild and knew the ranges of all the major species. I even studied herbarium specimens sent from Japan in prepara-

tion. The botanist within me was ready to study hostas in their native habitat and see what they could teach me.

I knew many smaller hostas like *H. longipes* and *H. kikutii* grew on rock and rock cliffs along rivers in southern Japan. I thought maybe that was why their crowns would sometimes rot when grown in containers in my nursery; their few, long roots were not built for soil but rock crevices. But I thought large hostas like *H. montana* and *H. sieboldiana* belonged in a forest or at least a shaded spot with deep soils.

Surprise! Believe it or not, almost every hosta I saw in two weeks of hunting in Japan was growing on a rock! Big ones, tiny ones, and all the ones in between, all grew on rocks usually along rivers but sometimes on the retaining walls along highways. Hostas are weeds. Even more amazing, their roots rarely penetrate the rocks, they just adhere to the rock surface, like epiphytes. So what is the best soil for hostas? Maybe, none at all!

Okay, before we all lose our minds, let’s be at least a little scientific, I did not study ecology for nothing. Hostas, it turns out, are a colonizing species. They are part of the cycle of plant succession on rocks along rivers in Japan. They fill their role and then they move on, often down the river, literally.

The Japanese say, “No moss, no hosta.” As a bryologist I know that moss is a primary colonizer of rocks and makes a



Hosta ‘Mango Salsa’

perfect seedbed, moist with lots of crevices for seeds to collect. It also is an indicator of where the water flows across the rock when it rains; its spores stick and germinate in that most moist area.

Hosta’s seeds have wings, well one

wing, but they do fly. The wind can carry them up or down a rock cliff and of the thousands produced a few will find the moss and take hold. The hostas will grow; produce more seeds and eventually create a space where grasses can invade. The grasses create an environment for trees and shrubs to take hold and they begin to provide dense shade. The hostas then decline and disappear. It turns out they want sun, and lots of it to prosper, even the very large ones.

So hostas are sun loving plants that grow on rocks. Remember paragraph 2, “hostas are shade plants that like rich, well-drained soil.” How do we reconcile this? Hostas do grow very well, with much bigger clumps than on the cliffs in soil in Japanese gardens. Some so large anyone of us would be very proud to claim them as our own. They do not grow in shade however but in almost full sun.

Now I am not saying that any of these hostas with their giant leaves would be awarded a blue ribbon in a hosta show but they are very big, produce lots of seeds, and appear to be very happy. And in case you are wondering it does get hot in north-western Honshu in July, mid-90’s, but it feels more like Michigan than North Carolina to me.

The reality is that most of us grow our hostas in too much shade. It did not start

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Underappreciated hostas, hybridizer’s view

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We all know a great hosta when we see one. Maybe it is its upright form, its combination of colors or its unusual distinctiveness. It may appear elegant, festive, or bordering on weird but it is beautiful in some way that we all can see. Maybe beautiful is not the right word but attention grabbing certainly is.

What are you partial to? Is it wild variegation, rich blue color, bright gold leaves with red petioles or just plain weird? Is it the

subtleties of green leaves, their shapes and their accessories? Maybe you are a sport fan and have the need to collect all the permutations of a hosta family. Maybe it doesn’t matter and there has never been a hosta that did not turn your head. In any case, we all appreciate some special thing about hostas even if it just that it is a hosta.

Maybe it is the size of the hosta that you appreciate, whether exceptionally large and bold or cute and small. I have seen very impressive gardens of almost all giant hostas, forests of waist high foliage to wade through, hands caressing each plant as you pass. Patios of minis in expensive containers are equally amazing, great diversity of color and form concentrated in miniature. The poor medium-sized hostas, our largest size

cohort, are often neglected but I am sure some of you think they are not too big and not too small, but just right.

There is however a completely different way to be attracted to a hosta, one that does not require even seeing the plant itself. Strange as it seems, a hosta in your imagination can be the most alluring of all, much more so than the real thing. Sometimes reality can be a big letdown.

Have you ever ordered hosta seeds? These packets of hope are available, as everything else, on the Internet, but also at the Midwest Winter Meeting and even Hosta College sometimes. These packets will have the name of the pod parent, the mom, and maybe the pollen parent if a cross was made. You may even see a photo of Mom but as you know every hosta seed produces a unique individual; every hosta seedling is different just like every person. So the children might resemble Mom but may also look more like Dad. The bees may have also brought multiple Dads to pollenate Mom, so you never know what you should really expect.

So where is the attraction? It is all in your mind. Collectors, but hybridizers especially will see the possibilities in their imagination of what those magic beans might produce. They guess that the seedlings will be streaked or ruffled or yellow, big or small. They can see it in the cross. It is hope against hope and that is the most fun for them, and me.

Let’s take this a little farther. What makes a great hosta, where is my bias? Great crosses make great hostas, even if they don’t always look so great! Sometimes you have to look a little harder to see the specialness of a seedling from a great hosta cross. Maybe it is a white back on a leaf, an extra wide petiole or white wax and shiny wax on the same plant.

Here is an example from the hybridizer’s point of view. When I opened the envelope that held the small number of seeds that would produce ‘First Blush’^{PP}_{28,920} I remember saying out loud, only half-jokingly, (I talk to myself a lot), this is the

“cross of the century.” Of course the century was less than a decade old at that point but the point is I expected to germinate some really different hosta seedlings although they would be all green in color. Why? In this cross I had combined my red hosta line with my purple hosta line for the first time. Further, ‘Beet Salad,’ the pollen parent, had a tiny red margin that I hoped would be inheritable. I never imagined red leaves but I knew the potential was there for something really special just from the cross.

Many of my favorite hostas have an interesting combination of traits, maybe shared in a hosta seedling for the first time. The goal of the ‘First Blush’ cross was not to produce red leaves but combine the red pigments I had concentrated in ‘Mango Salsa’ and its siblings with the traditional purple pigments of late flowering hostas. It was really combining two groups of hybridized species, *H. tsushimensis*, *H. yingeri*, and *H. clausa* (red petioles) with *H. longipes*, *H. kikutii*, and *H. pycnophylla* (purple petioles).

So if not red leaves, what new trait did I expect to see from the ‘First Blush’ cross? I expected a new color of reddish-purple on the petioles. Have you noticed it? Maybe not but that is one reason the plant looks so different as it emerges in the spring. That streak of color up the petioles into the leaf base is not red or purple; it is something in between, something richer. It is this new combination of pigments that has opened the door for hostas with petioles of more intense and diverse colors.

Sometimes we see a hosta is different but we cannot put our finger on just why. If ‘First Blush’ did not magically turn red a few weeks after emerging would people have still been so excited about it? Probably not, although people are still impressed with it before and after the blush comes and goes. But hybridizers would have been thrilled to get seeds from it with this new combination of pigments, all in the same hosta.

Hostas, especially solid colored ones,

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Hosta ‘Jetstream’

THE BEST WAY TO GROW HOSTAS?,
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like that but over time the trees have gotten much wider and those breaks in the canopy are gone. But we also want our hostas to have rich colors and not the faded out light green color of what we call “too much sun.” In Japan, the hostas seem to do just fine in too much sun.

The Japanese love plants. They do not have the acreage that we Americans do so most have what I call “a little pile of pots.” (Remember I grow 40,000 hostas a year in pots.) The average Japanese gardener has few if any hostas in their collection of pots. They have more rohdeas than hostas based on our way to small sample size. American cultivars are rare; they can get plants for free down by the riverside.

There are, like here, hosta collectors and their collections are all in containers and are massive. We want our hostas big, the Japanese what them small. Collectors show the entire plant in an ancient, often very expensive container in their plant shows. It is an artistic endeavor, not the desire for my hosta to be bigger than yours. I am not judging here, we are of different heritages and cultures; both have their value and delight the heart.

So what is the traditional potting soil for hostas in Japan for maybe hundreds of years? Rocks, of course. The Japanese use a soil made from crushed volcanic rock called “kanuma.” It is a porous rock that comes in several sizes that can be graded to be correct for the plant and the size of the pot. Usually larger rocks make a base in the

pot and then smaller ones fill the top. The pH of this soil is 4.5-5.0 from what I have read which is a little more acid than the 5.6 bark mix I use. They use rocks and I use bark. Both drain well but my bark may hold a little more moisture so I do not have to water as often. Maybe I water too much?

I think this kanuma mix does prevent some of the crown rotting problems we have in pots especially in winter. But the Japanese grow most of their plants under plastic, even tomatoes and watermelons in the field. Maybe it is to control the moisture the plants receive and prevent fungal diseases, I do not know, but I may just experiment with that in the nursery.

Authors have also written that hostas like *H. sieboldiana* are drought resistant. I know their leaves hold up well in periods of drought but their crowns often dry rot in our summer heat, the damage not appearing until the next spring. Living on rocks may solve this problem also. The rocks do get hot however and that white wax on the backs of their leaves can only help so much. In any case it certainly is food for thought.

So based on what we now know about hosta biology and the Japanese way of growing hostas, what is the best way to grow hostas? What do you think? I would not suggest ordering ten bags of kanuma soil and pulling all your hostas out of the ground and potting them up in it any time soon. (Besides, you may not get free shipping on that Amazon order.) I think the question may be what do you want from your hostas, or what do you want for them?

Simply said, hostas grow just fine in garden soil, we all know that. Drainage is important but they grow well in a running

stream, not unlike the cliffs they inhabit at home just a little more horizontal. Container grown hostas may however grow better in “Cactus Soil” than in our heavy peat mixes. Give it a try; you may need to water more but your hostas especially the little ones might be happier. We can experiment together.

The Japanese collectors do not want their hostas in large clumps but usually single divisions in their collections. They are smaller than their potential size for sure. Potted variegated *H. montana* sports from the wild and their seedlings are maybe at the largest two feet across with 9-10 inch leaves. The kanuma soil helps bonsai them and again is perfect for minis. They can even grow ‘Uzo no Mai’ very well in this soil. In fact they have several variegated forms that I was tempted to bring home and kill.

One other thing, hostas are more tropical than we think. Just because they can survive Minnesota winters, we think of them a very hardy perennial. In fact they are zone 6-9 plants in Japan. In Kyushu in southern Japan we walked out of the train station to be greeted by boulevards lined with palms, at least five palm species. Think Orlando. This is the land of *H. kikutii* and *H. longipes*. The climate is very moist and tropical, even jungle like with lots of ferns.

Add to that that hostas like ‘Uzo no Mai’ are grown in a greenhouse and now you see how they can grow it. We can do that too, if we can moderate the extremes of our climate artificially. I think many hostas hybridizers have figured this out but as hosta gardeners we do not think we need a special environment for our hard to grow



Hosta ‘First Blush’

hostas. Fortunately, in theory, by crossing different hosta species, mixing up their genes, we are producing hostas that are more tolerant of a wider range of microclimates. They may no longer grow as well on rocks but better in the garden. After all we are producing garden plants, but maybe some are really still rock garden plants.

So what have we learned? Hostas like rocks, add a few to your garden. Hostas can be grown as huge clumps in rich garden soil or be made works of art in bonsai containers. It is all what you want; the hostas will cooperate with you happily. Just do not put them in too much shade, they will suffer and disappear.

See maybe you can teach an old hosta-man new tricks.

THE SEARCH FOR
TRUE H. SIEBOLDIANA,
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other processes unseen within the plants. It is thought that this process of speciation is currently continuing today in Japan and in hundreds or thousands of years maybe *H. montana* and *H. sieboldiana* will be very distinct. And then maybe not. What we have learned from Darwin’s finches is that sometimes distinct populations genetically drift back toward each other and even fuse into a single species again. Then if environmental conditions change, they may start to drift apart again. In other words, speciation, evolution, is an ongoing process driven by adaption to changes in habitat. We have also seen that these changes can occur, at least with finches in tens of years not thousands.

Now I wonder, is this group of hostas steadily moving apart from each other, continually becoming more distinct with each new yearly crop of seeds or are the moving back closer together, looking more like each other every year in response to habitats becoming more similar in those river valleys

instead of different. Large storms with intense rain will wash these hostas from their rocky perches allowing for a rapid turnover in the population which is recreated from the few remaining individuals. Change can be radical. If you believe that the climate is changing and now storms are more intense then you might deduce that hosta speciation might diverge or fuse at a faster pace now and in the future.

Darwin’s theory of adaption is well known and accepted generally by most who study evolutionary biology and can be demonstrated by species on islands like Darwin’s finches readily in real time. His second theory that drives speciation is less widely held. It is that “beauty,” Darwin’s term, may also be a powerful force that selects for certain decorative genes that may not provide increased adaption to habitats or increased fitness. Think of a peacock’s tail. Female peacocks are attracted to the pattern of the tail, how it is displayed and the mating dance. The female drives this selection part of evolution. It is sexual. (Remember male birds are usually the most decorated of the species not females.) This may or may not be driven by fitness.

Hostas do not have separate sexes, both

are found in every hosta flower, so sexual attraction between hostas probably does not exist, but it might with their pollinators, the bees. It is thought that *H. plantaginea* is the hosta nearest the base of the trunk on Darwin’s evolutionary tree. It also has the most different flowers of any hosta species. Their fragrant flowers are unique to hostas, the flowers are very large, and they are white without stripes, and open at night. They are designed to attract, not bees that pollinate during the day but moths that appear at night. Their attraction is fragrance and a big shiny, white target.

As hostas moved from the Asian continent to the peninsula of Korea and down to the islands of Japan, (and out the branches of Darwin’s tree) somewhere along the way they became bee pollinated. Maybe moths were not present in these new lands, maybe there were lots of bees nosing around all the time. Hosta flowers evolved to be bee size, with purple stripes to attract them and opened during the day. This change was so successful that all hosta flowers became sexually attractive to bees only and the flowers no longer needed to produce the oils that produce fragrance saving that genetic cost, a production cost.

This savings of energy by not producing fragrant oils and the change to new pollinators, most evolutionary biologists would see this as adaptive change. These hosta are fitter, in that in theory, they produce more seeds and do it at a lower cost. They are more efficient. But maybe the bees just like purple striped flowers and think they are pretty.

Hosta flowers do vary within a species in the wild. Not all are light lavender with darker stripes. Some are darker purple, some have extra petals, some have no stripes. Some are even different colors, green, yellow or even brown. These mutations are rare and usually deleterious, not advantageous. But who decides this? Not the hostas themselves, but the bees. It is sexual selection, certainly in this case.

As a hosta hybridizer, these flower mutations excite me. Even if the bees are not, I am attracted to them. I would like to see hostas with as many different and colorful forms of flowers as have been hybridized in daylilies from just a few yellow and orange forms. This too is selecting for “beauty” in the form of human selection. I have taken on

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FAQ

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Of course, there is ‘First Blush’^{PP28920} a hosta I never dreamed I would see despite intentionally trying to create it. It is the first of its kind, and now I am sure it will not be the last, there is something special about being first. ‘Orange Mar-malade’^{PP16742} has been a huge marketing success for me. It was the right hosta at the right time before marketing programs took over the industry. It has been very good to me financially.

There are others that speak to me in a very calming way, some make me smile. Many are small or mini hostas.



Hosta ‘Lemon Kiss’

There is ‘Corkscrew,’ ‘Cracker Crumbs,’ ‘Coconut Custard,’ ‘Smiley Face,’ ‘Lemon Kiss,’ and ‘Twist Tie.’ ‘Ginsu Knife’ was quite a thing in its time and ‘Iris Frazier’ may be my most beautiful introduction.

But my true loves are my yellow hostas that I hybridized from species through generations of hybrids. ‘Mango Salsa,’ ‘Peach Salsa,’ ‘Lemon Snap,’ and ‘Lettuce Wrap’ that you will all get to meet soon. There are more coming too that do not even have names as of yet with more red and brighter yellow. I can not wait for spring to see them all again.

Q. We will be heading down to North Carolina, can we stop by and see the nursery?

A. Sure, but ... please let me know when you are

coming a good deal of time before you appear in the parking lot. First, I want to be here to show you around. That is one of my favorite things in the world. Not that my employees can not help you purchase a souvenir or two, but I want you to see the seedlings and maybe take a couple home with you. I must be there for that to happen.

Also, remember we are primarily a wholesale nursery. We ship lots of plants on Mondays and Tuesdays in the spring and early summer and then stick Stage 3 TC plants the end of the week. We usually have a lot going on, sometimes too much. That said I would love to have you stop by and visit and maybe we can have lunch or dinner if you have time.

The hostas look best in late April and May, horrible by September and are invisible November through most of March. You are welcome anytime but the hostas will like it best if they are looking presentable when you visit. Just let me know well in advance so I can try to juggle my schedule to give you the complete “five-dollar tour.” Hope to see you soon.

We need you and you need us!

These are exciting times in the world of hostas, literally all over the globe. I believe that hostas are about to take a giant leap as hybridizing efforts all over the world are now producing not only more interesting hosta leaves but also flowers. In Japan hosta flowers range in color from red, to yellow to green and many have extra petals and even double flowers. These results are coming not from just one species but many.

Hybridizers are also hard at work producing tetraploid hostas, those with their chromosomes doubled. As with daylilies this will produce larger more open hosta flowers with the potential for a wider range in colors, straighter scapes, thicker leaves, and more compact plants. Others, like myself are bringing red and purple into the leaves, petioles and scapes adding whole new colors to the usual green, blue and yellow. These are exciting times.

Now that I have whet your appetite, I bet you are wondering how you could see some of these plants in person, not just on Facebook. Maybe you would even like to purchase a couple and guard them with your life, promising never to commit them to the ground. You need a hosta nursery, the closer the better so you could visit it several times a year and see what is new. You need a place where you can build a relationship

with not only the plants but the folks that hybridize and propagate them. Believe it or not, that nursery needs you too, for all the same reasons.

I fear we are heading toward a world of total globalization. Now do not get me wrong, being able to email hosta folks all over the world and having their emails translated magically, if not totally accurately, (hosta is often host), and sharing thoughts, knowledge and even plants is great. I would never have known of those green flowers with out the Internet in the first place.

But globalization also leads to more and more control of in our case the nursery business by the largest growers and marketers. The selection of plants available inevitably becomes more limited because so many of each variety must be grown to satisfy giant retailers. There is cost savings by increasing those numbers, but only so many can be offered. Your favorite box store cannot carry 5 each of 100 different hostas but it does have shelf space for 50 each of 10 cultivars.

Hostas as you know are special. Yes, there are over 10,000 different named ones and many more that have garden names and may only be shared among hosta friends. There are a few hosta specialists that may offer 500 or even 1000 or more hostas but that is only 10% of those you might like to see. So, you see we need lots of local hosta



Hosta 'Fruit Loop'

nurseries scattered all over Hostadom to meet the demand of serious hosta collectors.

Again, mail order over the Internet cures some of these problems and the new AHGA Hosta Finder, (go to HostaGrowers.org) might help you find the number one hosta on your wish list. I don't know how many people have told me recently however that they would not buy another hosta unless they saw it in person. That is not so much a negative reaction to the photos they see in catalogues

but the longing for relationship. They want to touch the plant, just a little thumb and forefinger squeeze. So do I, I do not want to order hostas from Japan or Europe from a catalogue, I want to go there and see them in person.

Again, it is relationship we want with hostas and the experience of obtaining them. Yes, opening a box of hostas just arrived makes the day feel like Christmas but a

CONTINUED ON PAGE 5

What Hostas Have Taught Us: Part 2

The sequel is usually never as good as the original. That's what I hear from movie buffs. I rarely watch movies and on television almost never all the way through. Sleep usually comes before the credits. Hopefully, you can stay awake through this little history lesson, if not you can try to finish it tomorrow or the next day.

For those of you who missed Part 1 or never quite made it to the end, here is the scene that leads us to Part 2.



Hosta 'Sum and Substance'

"Just when you thought that you had seen it all, hostas taught us a new and even better trick. They could double their chromosomes in tissue culture becoming tetraploid. Along came wide-margined 'Avocado' and then 'Holy Mole' both tetraploid forms of 'Guacamole' from different labs and they looked a little different too, the color is better in the latter. Unfortunately, the ploidy of 'Holy Mole' has not been tested but 'Avocado' has a tetraploid green leaf margin and a diploid gold leaf center, almost two plants in one. Of course, when placed in tissue culture a green and a gold off type was produced. The green plant, 'Mojito' is totally tetraploid, with more substance and larger flowers, and the gold plant 'Cerveza' is a diploid plant that resembles but is not quite the same as 'Fried Bananas.'

Hans Hansen then showed hostas that he had some tricks of his own up his sleeves and in tissue culture chem-

ically induced 'Stained Glass' to become 'Cathedral Windows' a tetraploid plant, at least in its dark green margin. (It too unfortunately has not been tested.) It too has produced green off types that appear to be tetraploid but again slightly different from 'Mojito.' The yellow sport was named 'The Shining' and appears to be similar but not quite the same as 'Tortilla Chip,' the diploid yellow sport from 'Stained Glass.' "

Hosta sports like 'Avocado,' 'Patriot and 'Minuteman,' tetraploid forms of the diploid 'Guacamole' and 'Francee' got us starting to think about ploidy in hostas. Ploidy is just a scientific term for the number of sets of chromosomes in this case, the cells of a hosta. Diploid is two sets, the normal amount, and tetraploid is four sets, a doubling of genetic material.

As humans having an extra set or two chromosomes seems pretty foreign and outside our experience. This is to be expected because human embryos that may become triploid or tetraploid because of the fertilization of multiple sperm cells do not survive. Plants however can pull this trick off without a hitch and have often been converted to a higher ploidy to make fruits larger or seedless. Bananas and seedless watermelons are triploid. Cotton, tobacco, peanuts, and potatoes are tetraploid. Strawberries are octoploid, eight sets of chromosomes, as are dahlias, pansies and sugar cane hybrids. (Remember in Part 1 I said that I thought plants were smarter than we are, well maybe they are at least more clever.)

So, we all started looking at hostas in a different way. 'Radiant Edger' was recognized as tetraploid, not just a slow growing version of 'Gold Edger' that happened to be variegated. I am not sure how we first came to know it but 'Sum and Substance' turned out to be triploid. Maybe more than any one hosta 'Sum and Substance' had taught us more about ploidy in hostas than any other. It has also taught us a lot about human nature, good and bad.

So, this is the story of 'Sum and Substance,' a tale of intrigue with a happy ending. I saw my first plant of 'Sum and Substance' in Olive Baily Langdon's garden in Alabama at the AHS Convention in 1984. It was magnificent, standing upright with those large thick irregularly rounded chartreuse leaves. It seemed to have the perfect name, like Pomp and Circumstance. Named by Paul Aden that great marketer of his plants and others, it was beginning to be produced by tissue culture by Klehm Nursery.

I had immediate hosta lust! I wanted it because it made such a huge statement, it was new and hardly anyone had one yet. I wanted to be first on my block. I realized this dream when I had the winning bid of \$100.00 for a single huge division at the auction later that Saturday. In two years, I had a huge clump filling the center of a new

raised bed that brought out that same lust that I had felt in every visitor to my garden.

Since then, 'Sum and Substance' has become a household name. It is one of the top 5 most famous hostas in the world. And guess what, it is triploid. Yes, it has one extra set of chromosomes, not two. That is why it sets seed very reluctantly and why it has those thicker than average leaves. How this came to be remains a mystery. Even the parentage of this famous hosta is unknown although many, including myself have guessed at the cross.

Why all the mystery? Well things were different in Hostadom in the 1970's than they are now. I do not know all the details, maybe no one really does, but in 1974 and 1975 Paul Aden acquired Florence Shaw's hostas, I like to think with her consent, before her death later that year. It is thought that in that group 'Sum and Substance' found its way into the high energy marketing program of the collaboration of Aden and Klehm Nursery and into all of our gardens. It may have been a small plant in 1975 when first acquired since it was not registered until 1980 and made its splash in 1984. Unfortunately, Paul Aden claimed it as his own.

Its parentage is unknown and may be not the result of a hand cross. Most of us can see 'Elatior' in its background and maybe 'Sunlight,' a yellow sport of 'Frances Williams,' was the other parent. We think both plants were present in the Shaw garden. A chance mutation in the pollen or egg where the chromosomes were doubled might have caused the resulting fertilization to be triploid. In any case, in retrospect, 'Sum and Substance' has the larger flowers, sterility and thicker substance of a triploid plant.

Enough science for a while. We will get a little taste of it again soon. I just wonder, would we all now grow 'Sum and Substance' if it was called 'Birchwood Chartreuse?' Most of Florence Shaw's hostas have similar names with the prefix "Birchwood," you can look them up at HostaRegistrar.org. Would it ever have been tissue cultured and marketed worldwide? Would it have been eaten by voles if left in the Shaw garden? Would hostas be as popular as they are today with out one of its flagship hostas? I don't know, I do not think so.

Would it have been better if Aden gave Florence Shaw credit as the originator of the plant? Sure, but sometimes fame and fortune drives people to do things that without the fame they would not do. Even today, hybridizers including myself, tend to prize our seedlings over those of others. After all there is a lot that goes into hybridizing, selecting, propagating, and marketing a hosta and there is a little bit of you in every step of the process. Unlike hostas, humans have egos for better or worse.

CONTINUED ON PAGE 10

WE NEED YOU AND YOU NEED US!,
CONTINUED FROM PAGE 4

Christmas when we know what our presents are. A trip to a nursery in some far-flung part of the world or just down the street is full of surprises. That is where you get the goose bumps and your knees start to feel a little weak. We want to hold that special hosta and then take it home with us.

This is a long way of saying that you need nurseries, small local specialists, real garden centers with new and interesting plants, and you need the box stores too. Let’s talk tomatoes. Do you buy the same varieties of tomato plants each year or do try something new every year? You probably do a little of both. But today many of the “new” tomato varieties are really the old ones that come true, more or less, from seed, the heirlooms. Are you frustrated when you cannot find Beefsteak tomato plants only Celebrity at the big box stores that all carry the same varieties? There is a local nursery on the other side of Raleigh that grows over 100 different kinds of tomato plants and you can touch them and examine their foliage.

Most of us do not buy the same hostas every year like we do tomatoes; we want something new, something that looks different that we can tell apart from our other hostas. Heirloom hostas, many of which are fine plants and fill the the box stores, are not really a good solution for us; we demand better. So, we seek out the specialists, and maybe take that daytrip across the countryside or even into the next state. Getting there is half the fun. We need our little hosta nurseries and we need more of them.

By the way, ever thought of having a little local seasonal hosta business. You could be open as little as one weekend or two in the spring. Like I said this a great time to give it a try, we need more hosta growers not fewer. You can divide your own hostas, pot and sell them or buy some at wholesale prices and resell them the same year with no overwintering. If nothing else, you can pay for your hosta trips and even the National Convention with the profits. I’ll be glad to help.

So, what is the best way to support the little local guy, be it hosta specialist or garden center? The nursery business is a tough business and we need you help. Of course, you want to support them with your dollars, but you can do so much more. Bring a new buddy every time you come and spread the word. You really need to make this a grass roots effort and that is where hosta clubs are so essential.

Let’s talk a little about hosta clubs and how to help them prosper and then where they fit in to a partnership with the local nursery. All hosta clubs, from the AHS to the smallest local need at least 5 things to be

successful. The need leaders, someone to take responsibility, they need workers, they need hosta collectors and at least one over the top hosta garden, they need to recruit and they yes, need a nursery.

Someone must be the President to take charge of the agenda and stand up before the group. Please keep all this as simple and easy as possible or you will never find a long line of folks willing to fill that position. Allow for longer terms of office, you may run through all the willing candidates pretty quickly if you have one- or two-year terms. And if the club does not have a treasury you do not need officers at all. It can be run by a group of those interested in decision making and everyone just pays their own way. No fundraising either. This is great for a small aging group.

Workers are usually easy to find. Hosta folks love to help. If they are present, they will lend a hand. With email it is now very easy, (and free, no need for dues) for one person to reach the entire group with a few clicks of a mouse. If you have a member that is web savvy, then you can have a website, too. I do not think websites are particularly very good recruiting tools but are handy to check the calendar of events and the location of the next meeting.

Hosta clubs must have hosta collectors, that is a given. Every club needs at least one collector that has not just tens of hostas but hundreds, maybe a thousand. I like to say, to have a good representative hosta collection you need at least 600 different hostas. Smaller gardens are still impressive, but a club needs not only to able to at least annually visit a world class collection but also have access to the collecting knowledge that comes with acquiring that many hostas from many different sources.

Recruiting to your hosta club can be a tricky thing. Sure, you can bring a friend to a meeting or on that bus trip. But recruiting people just like you, people you know, can be very limiting especially because you are all generally the same age. Over time the club ages out. We are seeing that with all kinds of clubs in America, not just hosta clubs. Yes, hostas are the Friendship Plant but if you just come to meetings primarily for the people than you become a social club that likes hostas not a hosta first club. Someone interested in hostas and not in a group of new friends might be disappointed when they attend their first meeting if the primary emphasis is not on hostas.

So how do you attract new younger members. Like I said, put hostas first. Have programs about hostas primarily but other plants, too, invite hybridizers and nursery folks, to show their new plants. Have the meeting at a site, like a garden center or a botanical garden and make it open to the public. Host a joint meeting with another



Hosta ‘X-cellent’

plant society. Can you imagine if the American Hosta Society and the American Hemerocallis Society had a joint National Convention with over 1000 attendees? I think that would be great.

Hands on events are very popular with millennials. Sometimes we take for granted that everyone knows the hosta basics, they don’t. Demonstrate dividing a hosta at your plant sale and how to pot a hosta. I do a program where we make a mini hosta bowl. I help with the selection of three miniature hostas from about a dozen, provide the potting mix, a little fertilizer, and the container if necessary and let everyone make their own bowl, making sure everyone gets their hands dirty. Anyone can have a little bowl of hostas on their porch or deck, it is low maintenance and safe from deer.

Open garden days attract all ages of gardeners from retired folks to young couples with baby carriages. Make it a city-wide event again in conjunction with other plant groups one day a year. Yes, you will need to put the garden hose and tools in the shed, but this is not the National Convention you do not need to remulch the entire garden. Greeting interested visitors in your garden, building relationships, and conveying how-to tips is what this is all about.

Plant sales, especially hosta sales draw crowds of all ages too. I am always amazed at how many hostas a club can sell in just three hours before noon on a Saturday. Make sure you get every customer’s email address so you can add them to the list that announces the next meeting, and of course the next sale. You may attract a few new members this way but most of these folks you will never see again, until next year’s hosta sale, that is.

Let me add a couple of dos and don’ts.

Do not hold long business meetings before or after the lecture, keep the committee reports in the board room. Elect your officers, introduce them, announce the next meeting and the plant sale and move on. Visitors have come for the speaker not to see how well you follow Roberts Rules of Order. Do not have programs that are about the pest and problems associated with hostas. Those topics can be covered in a question and answer session by the speaker or face to face. Focus on the joy that we get from growing hostas and the new exciting hybrids that are coming soon and maybe a little about the fact that hostas are always served with food and a cold beverage. Be positive.

Finally, hosta clubs need a nursery to grow sale plants for them. They can order club plants for your club members, they can give inexpensive programs where they can get some exposure. You can help them by telling nurseries where to get hostas, you know all the best sources, and help with ordering because you know what is popular, they do not. You can offer to do a program at the nursery for free or maybe for plants. You can have at least one meeting a year at the nursery during the growing season.

If we are going to keep this party going, we all need to work together. We are all on the same team. Nurseries need hosta clubs and hosta clubs need nurseries. Let’s support each other for the good of Hostadom. One more thing, The AHS needs your help, too. For the price of one good new hosta you can join for a year. The pictures in *The Hosta Journal* are worth every bit of that. Visit Hosta.org and sign up. You can use your credit card.

As for me, I plan to be the last man standing. I am still having a blast. Hostas are still fun.

Planting Instructions ...

Hostas perform best when planted with ferns and other perennials in prepared beds. They can also be tucked into the landscape on a hole by hole basis if an area of at least 2-3 feet wide is prepared to a depth of 9-12 inches. When planted in the woods with wildflowers it is important to remove all surface tree roots within 2 feet of each hosta clump.

Bed Preparation: The most important ingredient in successful hosta growing is bed preparation. Good hosta soil should remain moist after a good rain yet drain well. It should have enough organic matter to provide plenty of air spaces for vigorous root growth but be firm enough to discourage voles and other rodents. It should have high fertility and a light covering of mulch to keep the soil cool in summer and retain moisture. Here is how we do it at Green Hill Farm.

First the area to be planted is completely tilled with our old Troy Built tiller to its maximum depth of 8-9 inches. We remove all the surface tree roots that the tiller finds. If the soil is poor and/or hard, we will frequently add 4-5 inches of purchased topsoil, a good sandy

loam, and till it in to the existing soil. Then 3 inches (about 30% of the total bed) of organic matter is spread over the bed and tilled in with some 10-10-10 fertilizer to “feed the bark.” We usually use coarse pine bark nuggets in our beds that are locally available in bulk, but well-rotted sawdust, compost or manure will also work well. The coarser the organic material is the larger the air spaces in the soil will be and the longer they will remain in the soil.

The addition of gravel gives the bed mass, moderating soil temperatures as well as making it firmer. Also, it is a vole deterrent. If you can dig in your bed easily with your hands then the voles can too. We no longer spread gravel over the entire bed and till it in to a depth of 4 -5 inches, although it has worked well for us in the past. We just add gravel where we plant our hostas and other perennials that voles might eat.

Finally, after a good rain to settle things a little, the bed is ready to plant.

Hole Preparation: Hostas do not grow deep into the soil, usually no deeper than one shovel depth or so. Wide holes are better than

deep holes, since hosta roots usually extend as far or further from the center of the plant as the foliage does. Dig a hole wide enough to accommodate all the roots of the hosta to be planted without cutting or folding them. Make a small mound in the bottom of the hole to rest the crown upon and cover it with about an inch of 3/8 inch gravel, either crushed granite or pea gravel. Take the bare rooted hosta and run its roots down the hill. Cover the roots and crown with another inch or so of gravel, making a hosta and gravel sandwich. Loosely fill the hole with soil that has been amended with some slow release fertilizer or manure (especially if planting in the spring). Do not pack the soil around the plant. Water thoroughly and mulch with a thin layer of pine bark, shredded oak bark or whatever is your local favorite. Remember to keep the mulch off the hosta petioles in order to discourage fungal diseases. Also, deep mulches encourage voles.

When to plant: Hostas can be successfully planted any time that the ground can be worked. The best times to plant hostas are when they are actively making new roots, in the spring after the first flush of leaves has hardened off and in late summer once the hottest weather is past. Here in North Carolina that is usually early May and late August. Most plants that we ship to retail customers are sent during those optimum times. Planting

at these times allows the plants enough time to establish a good root system before the droughts of summer in the first case and before they go dormant for the winter in the latter.

Containerized hostas can be planted with a minimum of shock throughout the spring, summer and into fall. They should be completely bare rooted before planting and their roots untangled. If your hostas arrive bare root they will probably appreciate being soaked in a bucket of water for several hours to rehydrate them before planting. Pinching a leaf or two will also reduce desiccation shock and usually stimulate another flush of leaves. Hostas usually acclimate completely to their new homes in 1-2 weeks and should be kept moist during that period. A topdressing of fertilizer will also encourage rapid new growth.

Finally, for hostas to achieve their maximum potential, the soil must be able to readily take up the water and nutrients that they need. Good bed preparation in the beginning makes all the difference. This however is not the end of the process. Over time tree roots will invade your beds robbing your hostas of water and heavy rains will compact the soil making it hard for any water to penetrate deep into the bed. Alas, then the beds will need reworking. Remember, a garden is never completed; it is always a work in process.



Hosta 'Rowan My Boat'



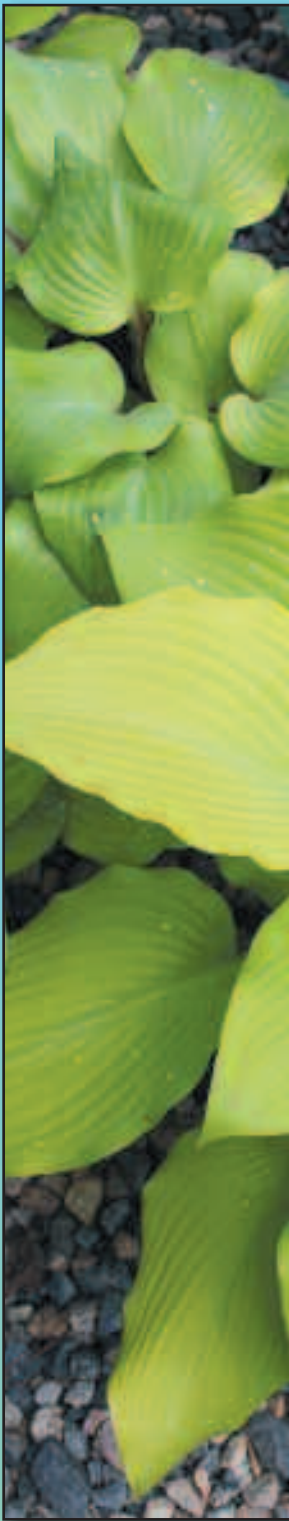
Hosta 'Holar Purple Flash'



Hosta 'Golden Falls'



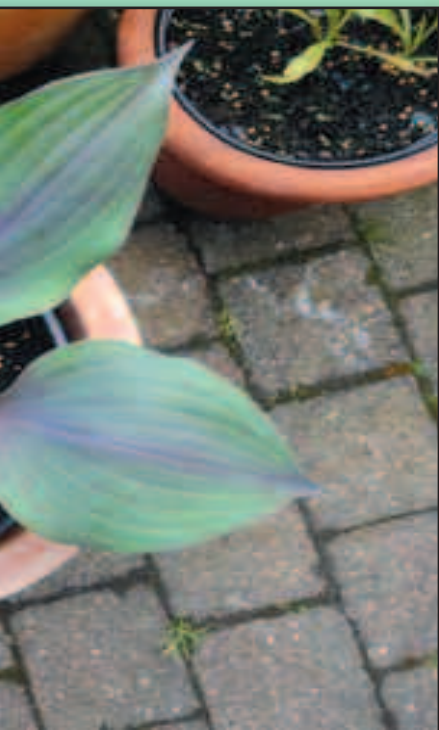
Hosta 'Lemon Snap'



Hosta 'Glossy Ruffles'



Hosta 'Bear Necessities'



ash'



Hosta 'Ruffles n Ridges'



Hosta 'Biscuits -n- Honey'



Hosta 'Twinkle Little Star'



Hosta 'Twice as Nice'

THE SEARCH FOR TRUE H. sieboldiana, CONTINUED FROM PAGE 3

the role of the bee pollinator and select seedlings that will able to reproduce the new flower colors I desire. The hostas are no longer selected for fitness first, how well they grow, but for the flowers alone. Think of the yellow-flowered ‘Miracle Lemony’ as an example of a less fit hosta that is selected for beauty.

So, back to the question at hand. Are *H. montana*, *H. sieboldiana*, and *H. fluctuans* separate species at this point in time or are they still one large variable species in the process of fusing or diverging? It is hard to say. They do have traits that differentiate them from each other. *H. montana* has its typical star arrangement of bracts on its inflorescence, *H. sieboldiana* has a high number of vein pairs, 16-18 as opposed to 12-13 pairs to *H. montana*, and *H. fluctuans* has a more upright habit than *H. montana* with straighter scapes that also lack the star arrangement of bracts and like *H. sieboldiana* have more widely spaced flowers. It has gently undulating light blue leaves with wax underneath that are slightly concave and more broadly ovate.

Yes, they do hybridize readily but they are also isolated from each other in different river valleys. *H. sieboldiana* and *H. fluctuans* are found on the northern edge of *H. montana* range so I think they are most likely becoming separate species and even if they are not quite there yet, we see them as different, gave them different names in Japanese and Latin, and have for hundreds of years. Functionally, it is probably best to treat them separately and only time will tell whether they diverge further or begin to fuse into one species again. Most importantly, we know they still exist as wild plants in Japan.

Okay, I just can’t resist, just one little story, it is the best one, again removed from my Hosta Journal article:

“We were in the “deep country” of northwestern Honshu. It was near the end of the day, a day we had spent seeing what we thought was *H. sieboldiana* in full sun on rocks, rock walls along streams, and along a narrow road and eating bracken fern. While a few of the plants had the rounded leaves with 15-16 vein pairs we sought, they were also very green on that hot July afternoon. I thought we were on the way to dinner and the hotel. Suddenly we pulled off the highway

onto a parallel side road that ran between some rice paddies and a singular huge rock, tandem dump truck size. By now we knew what to expect and with cameras in hand headed toward the rock to see the hostas that must adorn its top. Sure enough below the little Shinto shrine atop the rock was a flat space crowded with mature hostas. After taking way too many photos from every conceivable angle, we headed back to the car only to be led to a shaded spot between the giant rock and the bank of the highway.

It was there that we saw it, a large blue, yes blue, hosta that if growing in a garden any one of us would immediately recognize as a *H. sieboldiana* type. It had round leaves, 16 vein pairs, and nice corrugation. It could have passed for ‘Big Daddy’ with longer scapes arching



down under the weight of its many seed pods. Yes, a plant that we would all call *H. sieboldiana* does exist in the wild in Japan.”

The end, until next time.

SPRING 2019 Complete Retail Hosta Listing

♥ indicates our introductions

“The Top 25”

Something new and fun! Let’s rank the hostas that are available this year from Green Hill Farm. You can do it too if you like. Think of it as an AP or Coaches College Basketball Poll. These are the “best” 25 hostas that we offer, at least this week.

They are not however our best sellers, that would be another list generated by QuickBooks. They are also not our newest hostas although many are as I hope our offerings are getting better with the passage of time. It is not a list of my favorites. It is a measure of how good the hostas are, of my perceived value of them, again in a snapshot of time. It is something with which to have fun and maybe make you think of your own rankings, too.

Numbers 1-5 are pretty easy, just like with the basketball polls but once you get to number 10 many of the hostas could easily change position, up or down. As the season progresses, I am sure some will fall in my poll, some maybe out of the poll replaced by a hosta that is having a career season. I do love hostas, but some do lose favor with me and those are hard for me to market to my customers. Again, this like hostas is supposed to be fun.

1. What else?
♥ **‘First Blush’**^{PP28,920} (Solberg 2015) - (48/49 seedling X ‘Beet Salad’) - Medium, (12” X 24”) ‘First Blush’ not only has green leaves with red petioles that extend into the leaf blade but also a thin red margin around the leaf, similar but much more dramatic than its parent ‘Beet Salad.’ However, the most exciting thing about ‘First Blush’ is that in spring the leaf between the veins will start to “blush” red from the tip of the leaf down toward the base. The leaves remain red here until temperatures surpass 92 degrees, usually into June. The color should persist longer in Northern gardens. Our first red-leafed hosta. **\$35**

2. Extremely popular and grows well.
♥ **‘Lemon Snap’** (Solberg 2018) – ([‘Smiley Face’ X ‘Beet Salad’] X [‘Peacock Strut’ X ‘Beet Salad’]) – Medium, (10” X 20”) This hosta is the headliner of the next generation of our yellow hostas with bright red petioles. The leaves can be cupped up to really the red as it saturates the midrib sometimes to near the middle of the leaf. The cupping is a new leaf shape for this line of breeding with some puckers thrown in here and there. In mid-summer a very dark purple scape emerges with pretty purple striped flowers in a tight mass. A great breeder, too. **\$50**

3. A very pretty hosta from a very famous parent.
‘Gabriel’s Wing’^{PPAF} (D. Rawson 2016) - (Sport of ‘Empress Wu’^{PP20,774}) - Huge, (28” X 60”) This very large hosta from Don Rawson may be the most colorful sport of ‘Empress Wu’ to date. The yellow margins are vibrant and hold that color, setting off the green centers well. The entire clump may remind you of the classic hosta

‘Sagae;’ it does me. Grows well! **\$55**

4. Something I think is really cool maybe over ranked but that is a parent’s prerogative.
♥ **‘Twice as Nice’** (Solberg 2019) - (Sport of ‘Ambrosia’^{PPAF}) - Medium to Large, (14” X 28”) As wonderfully colorful as my ‘Ambrosia’^{PPAF} is this tetraploid form of it is ‘Twice as Nice.’ Yes, it is a little smaller and more compact but also has more substance and richer wide blue margins and a bright yellow leaf center. The flowers are fragrant, of course. Pretty nice! **\$65**

5. Different, cute and curly.
‘Twinkle Little Star’ (D. Dean 2017) - ([‘Astral Bliss’ X ‘Purple Verticulated Elf’] X ‘Chabo Unazuki’) - Small, (8” X 16”) This almost mini new from Don Dean has just 4” leaves and stands only 8” tall. It makes a very tight flat mound of wavy very blue foliage that is folded into a star-shaped points. On the other hand, it looks a little prickly, too. Of all his great blue hostas this is my favorite by far. Available in May 2019. **\$45**

6. Based on popularity, all mice are overrated.
♥ **‘Mouse Madness’** (M. Zilis, Solberg 2017) - (‘Solar Mouse’ sport) - Mini, (5” X 12”) Maybe the best of the mice so far, this white-edged sport of the all-white and almost impossible to grow ‘Solar Mouse’ is very vigorous. ‘Mouse Madness’ emerges with very bright white margins in the spring that do not melt but stay attractive well into late summer. A must for your collection of mice. **Limited \$30**

7. Great color, form and growth rate.
‘Fruit Loop’ (D. & M. Beilstein 2013) - ([[‘Minuta’ F1 seedling B X ‘Shining Tot’] X (‘Lakeside Looking Glass op.)) - Small, (7” X 13”) Not quite a mini, this very small hosta has very bright wide white margins on cute little round leaves that are cupped and puckered. It has good substance and makes a tight, neat clump. It will brighten up any mixed container or trough! **\$25**

8. Unique large yellow with purple petioles.
♥ **‘Tom Terrific’** (Solberg 2018) – (48/49 X ‘Key West’) – Large, (24” X 40”) This is the first of our large yellow hostas with purple petioles. It is a cross of ‘Key West’ with our best purple petiole breeder. It has rounded puckered leaves showing its *H. sieboldiana* heritage and remains yellow all season. It is named for Tom Micheletti, good friend and past president of the AHS, as well as the cartoon superhero on Captain Kangaroo. Remember when? **\$35**

9. Really nice upright yellow with H. montana heritage.
‘Golden Falls’ (D. Ruff, Solberg 2018) - (‘Niagara Falls’ seedling) - Large, (24” X 36”) This large bright yellow seedling of ‘Niagara Falls’ from Doug Ruff has it all. It is an elegant combination of upright cascading long-pointed leaves, many deeply impressed veins flowing down, and tight riplets on the leaf edges. Even the large pale lavender flowers in summer are too pretty to remove early. A new classic. **\$55**

10. Purple leaves, you might rank it higher.
‘Holar Purple Flash’ (R. Van Keer) - (‘Purple Haze’ X ‘Riptide’) - Medium, (14” X 26”) This very striking medium-sized hosta has a purple blush in spring on its waxy bluish green leaves. From Ronnie Van Keer in Belgium it is a seedling of ‘Purple Haze’ and ‘Riptide’ Not only is it beautiful but also a great hybridizing opportunity. **\$40**

11. Interesting leaf shape.
‘Rowan My Boat’ (D. & M. Beilstein 2018) - ([‘Butternut Hill’ X ‘Azure Snow’ seedling] X ‘Treasure Island’) - Medium, (14” X 31”) Here is another one of Doug Beilstein’s excellent very blue hostas with an unusual leaf shape. This medium to large hosta has puckered waxy blue leaves that are folded into petite kayaks. Named for his grandson I am sure you have the perfect spot for this eye catcher. **\$45**

12. Weird, but weird is popular as is the weird name.
‘Road Rage’ (D. & M. Beilstein 2018) Medium, (15” X 27”) Some may say this is an ugly hosta, but most of us think it only weird, and weird is good, in this case very good. ‘Road Rage’ moves ‘Leapin’ Lizard’ a little farther up the road. It has variable green leaves that are puckered but have extra ridges that protrude upward. Yes, weird! It is medium in size and seems to grow very well. From Doug Beilstein, it is certainly a conversation starter. **\$30**

13. A true giant always impresses.
‘Ruffles n Ridges’ (R. & G. Fox 2018) - (‘Komodo Dragon’ X ‘Powder Blue’) - Huge, (36” X 72”) If you think bigger is better, this beast is for you. Bob Fox is known for his huge blue seedlings and this is one of the biggest, waist high and almost seven feet across. But it is those huge ruffled round leaves with deep veining that give it its attitude. A cross of ‘Komodo Dragon’ and ‘Powder Blue,’ yes, it is a true monster. **\$55**

14. My sentimental favorite.
♥ **‘Love of My Life’** (Solberg 2017) - (‘Sun Shower’ X ‘Designer Genes’ sport) - Medium, (14” X 30”) Yes, I love this very special hosta. It is a cross of my ‘Sun Shower’ and ‘Designer Genes’ that sported right away from an all yellow plant to one with a green edge. Having *H. longipes* and *H. sieboldiana* genes, in many ways it is like ‘June’ but more robust. In addition, it also has red petioles and pinkish purple scapes. It is very sexy in the spring! **\$35**

15. This hosta hybridizers will rank higher.
♥ **‘Sunny Day’** (Solberg 2019) - ([48/49 seedling X ‘Key West’] X 48/49 seedling) - Medium (14” X 24”) ‘Sunny Day,’ chasing all the clouds away... this is a very happy hosta! It is also this hybridizer’s fantasy. It is the result of a backcross of a ‘Tom Terrific’ sibling back to its purple-petioled parent. The result is a very upright medium-sized hosta with the vibrant yellow color of ‘Key West’ and rich purple petioles up into the leaf blade. I rushed this one to you, it is that good. **\$45**

16. Brightest little mini I know.
♥ **‘Fairy Dust’** (Solberg 2017) - (‘Corkscrew’ X ‘Green Eyes’ F2) - Mini, (5” X 8”) I am very excited about my intensely yellow little mini ‘Fairy Dust,’ a

Our New Hostas for 2019

‘Bear Necessities’
‘Biscuits-n-Honey’
‘Gabriel’s Wing’
‘Glossy Ruffles’
‘Golden Falls’
‘Holar Purple Flash’
‘Rowan My Boat’
‘Ruffles n Ridges’
‘Sunny Day’
‘Twice as Nice’
‘Twinkle Little Star’

second generation seedling from ‘Corkscrew’ and ‘Green Eyes.’ Its narrow upright leaves sparkle brightly all summer and it has good substance, too. This one makes sparks fly! **\$20**

17. Very yellow and red with round leaves, underrated.
♥ **‘Lemon Kiss’** (Solberg 2018) – (‘Smiley Face’ X ‘Beet Salad’) – Small, (6” X 14”) Sometimes hybridizers have a good thing but still want to make it better. ‘Lemon Kiss’ is an improvement on our very popular ‘Smiley Face.’ It is a cross of ‘Smiley Face’ back to ‘Beet Salad.’ The result is a bright yellow very small hosta with good substance and intense red petioles. You just have to touch it to believe it. **\$20**

18. Another great growing mini.
♥ **‘Lemon Zinger’** (Solberg 2017) - (‘Dragon Tails’ sport) - Mini, (7” X 16”) ‘Lemon Zinger’ is my green-margined sport of the increasingly popular ‘Dragon Tails.’ Its wavy bright yellow leaves are outlined in dark green. It is a vigorous little mini, perfect in a pot. It just might be your cup of tea. **\$15**

19. Still a beautiful plant that grows well for almost everyone.
♥ **‘Ambrosia’**^{PPAF} (Solberg 2015) - (Sport of ‘Guacamole’) - Large, (24” X 54”) Ambrosia is “the food of the gods” and this hosta is certainly good enough to eat. It is simply divine. It is a blue-margined, light yellow-centered sport of my own ‘Guacamole’ that performs just as well in the garden, making a large clump

UNDERAPPRECIATED HOSTAS, CONTINUED FROM PAGE 2

with new combinations of traits are often underappreciated. They may look a little plain, somewhat similar to their parents. Put ‘Beet Salad’ next to ‘First Blush’ and you can certainly see the family resemblance. As small plants they do look very similar except for the petiole color. Here are a few examples of what I consider really good hostas and why I think they are underappreciated.

Let’s start with a blue hosta, ‘Jetstream.’ Most hostas change their color as the season progresses, even green ones. Blue hostas often become green hostas in summer’s heat as they lose their ability to make white wax. If you happen across a fine clump of ‘Jetstream’ in May, it is an intensely blue hosta but if you see it for the first time in July, you will think it is a shiny green hosta.

What is so special about that? Well, how many other hostas do you know that can do that trick? *H. yingeri*, its pod parent gave it the shiny summer leaves while an unknown probably blue pollen parent provided the white wax in spring, two kinds of wax produced by the same hosta. Couple that with the fact that is a fast growing blue hosta, also rare, and you have something special. If you live with the plant for a season or two you will appreciate all these traits wrapped up inside it while just a glance or two one afternoon in a nursery will not reveal the complexity of its parentage.

‘Tom Terrific’ is a breakthrough yellow hosta. It is not a final product but a huge step along the way to a very large yellow hosta with purple petioles up into the leaf blade. It is a seedling of ‘Key West,’ a hosta that has good yellow color all summer, and makes a large upright clump. The pod parent is one of my best purple-petioled seedlings. In the first generation of such a cross the purple is usually mostly on the back of the petiole and maybe only two thirds up the front of it. A second cross of siblings will probably give you more purple on the petiole.

‘Tom Terrific’ unlike its siblings has the *H. sieboldiana* leaf shape that in hidden in ‘Key West’ making its leaves round, cupped and puckered. It has all this in a large stately habit, pretty cool. Our newest hosta ‘Sunny Day’ is a backcross back to the purple-petioled line from the ‘Tom Terrific’ cross and the purple reaches the leaf blade on a very upright yellow hosta that is medium in size. It is another example of seeing the parent and grandparents in a hosta seedling and appreciating the new combination of desired traits.

Many of you grow ‘Coconut Custard’ one of my older yellow hostas. How many of you know it has rich purple petioles? Yes, it has ‘One Man’s Treasure’ as a grandparent. ‘Blue Cadet,’ the other grandparent, gives it its substance and leaf shape and an unknown pollen parent its yellow color and maybe its very waxy look in spring. All that tucked into a cute little hosta.

People ask me, “How is ‘Fairy Dust’ different from ‘Dragon Tails?’ ” They see

two miniature yellow hostas with narrow leaves and often decide they do not need both. The hybridizer in me wants to respond that ‘Fairy Dust’ has ‘Corkscrew’ as a grandparent and is not just another little *H. sieboldii*. Its combination of ‘Corkscrew’ and ‘Green Eyes’ gives it more substance in a smaller and more compact package but it also gives it glossy wax that makes its richer yellow color really sparkle. It is a completely different hosta that maybe only its hybridizer can fully appreciate.

Finally there is ‘Honey Pie’ a cross of ‘September Sun’ and *H. plantaginea*. The fact that a seed of this cross set much less grew into a fast growing large yellow hosta with ‘August Moon’ heritage and fragrant flowers is a miracle. Any crosses with *H. plantaginea* are fraught with sterility problems. It is a hosta that makes leaves all summer and frequently is one of the best looking hostas in late summer.

The hidden secret in this cross is ‘September Sun,’ a green-margined sport of ‘August Moon.’ ‘September Sun’ passes



Hosta ‘Tom Terrific’

its sporting proclivity on to its children. Yellow seedlings will soon be sporting green streaks, then green edges and leaf centers. So in time ‘Honey Pie’ sported to both ‘Honey Bear’ and ‘Honey Bun,’ the latter looking all the world like a fragrant-flowered ‘September Sun.’ Of course, all this sporting was bound to produce a large deep green hosta with puckered leaves and fragrant flowers that grows like a weed. It is not fancy, but pretty in its own right, it’s just the ‘Bear Necessities.’

Like all things in life a closer look brings a greater appreciation of the depth of the beauty all around us. Hostas are no exception. Hosta hybridizers look to see the traits of parents and grandparents in a new, better, combination in the hostas they produce. So slow down a little from your spring hosta collecting frenzy and take a longer look. Take that hosta leaf between your thumb and forefinger and feel the magic. Some of the most beautiful hostas are a little plain on the outside but you know it’s really what’s on the inside that counts.

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that enjoys bright light. Like ambrosia it is fragrant and may also have the same mythological healing powers. This hosta is close to perfection. **\$25**

20. I probably like this one more than you do.
♥ ‘**Twist Tie**’ (Solberg 2017) - (‘Tongue Twister’ X [‘Iwa’ X ‘Blue Blush’]) - Small, (10” X 18”) ‘Twist Tie’ is a small blue-green hosta with very upright twisted leaves. It is from ‘Tongue Twister’ and like it has very good substance and is one of the last hostas to go to sleep. Twisted hostas are my new passion, wait to you see what comes next. **\$20**

21. You probably would rank this one higher.
♥ ‘**Sugar Plum**’ (Solberg 2011) - (Seedling X ‘One Man’s Treasure’) - Medium, (20” X 28”) This is the one!!! The ultimate goal of breeding purple-petioled hostas is to produce an upright plant with rich regal purple color that runs up into the veins at the base of the leaf. Add a bright white back to the leaf and you have the perfection of the purple running all the way into the white. This is that dream plant. It has purple scapes as well and blooms in late August and September. It is a prolific seed producer. **\$20**

22. You need sunglasses to look at this hosta.
‘**Glossy Ruffles**’ (D. Ruff 2016) - (‘Invincible’ seedling) - Large, (24” X 45”) Do you like your hostas to shine, I mean really shine? This large, fast growing ‘Invincible’ seedling from Doug Ruff has very waxy ruffled green leaves that become mirrors of light in the garden. Perfect in that sunny corner by the walk. **Special \$25**

23. Different, and different counts.
‘**Let’s Twist Again**’ (D. Van Eechaute) - (Sport of ‘Patriot’) - Medium, (10” X 24”) Danny has done it again. One of the greatest hosta sport fishermen worldwide, he has recently introduced this very curly sport of believe it or not, ‘Patriot.’ This hostas makes a tight medium-sized clump that has surprising vigor. Perfect in a pot, it makes a great specimen hosta. **\$25**

24. A good solid blue.
‘**Hovercraft**’ (D. & M. Beilstein 2016) - (*H. laevigata* X op. seedling) - Medium, (16” X 30”) I really like this hosta even as a little liner. I like the roundness of the leaves and the nice blue color. It too is a large classic form hosta but with a little more open look as the leaves seem to float over their petioles. A fine blue from Doug Beilstein. **\$20**

25. Better than expected.
♥ ‘**Heather Hill**’ (M. Zilis, Solberg 2018) – (‘Lime Zest’ sport) – Mini to Small, (5” X 14”) This sport of ‘Lime Zest’ was a wonderful surprise. Sometimes hostas create the best hostas all on their own. This fast growing very small hosta develops a bright white margin and is very happy in morning sun. It makes a great

garden plant as well as a welcome addition to your container collection. Introduced with Heather Hill Gardens in Fairfax Station, VA. **Special \$15**

Honorable Mention (Others receiving votes)

Medium to Large Hostas:

‘**1* and Ten**’ (D. & M. Beilstein 2013) - (‘Brutus’ X BEV3-MOM seedling) - Very Large, (32” X 50”) This is a big hosta! It is almost 3 feet tall with very large shovel-like blue-green leaves with good substance. Part of Doug Beilstein’s gridiron series, it is a seedling from his very popular ‘Brutus.’ I love its dramatic leaf veins and upright habit. **\$20**

NEW ♥ ‘Bear Necessities’ (Solberg 2019) - (Sport of ‘Honey Bear’) - Large, (18” X 40”) This green sport from its much fancier parent ‘Honey Bear’ really has lots of character given a closer look. As expected: it has showy fragrant flowers and a tremendous growth rate but also large rounded dark green leaves that are nicely puckered revealing its ‘August Moon’ parentage. I just could not throw this one out. **Special \$20**

NEW ♥ ‘Biscuits -n- Honey’ (Solberg, Middle Tennessee Hosta Society 2018) - (70 20?) - Medium, (14” X 26”) This very yellow medium-sized hosta is of *H. montana* heritage and has the classic tight vein pattern of its parents. It holds its yellow very well and would appreciate some summer shade. Good substance, too. Named for the 2018 Dixie Regional where ‘Biscuits -n- Honey’ were served to the delight of all. **\$35**

♥ ‘**Blue Perfection**’ (Solberg 2015) - (Sport of ‘Ambrosia’^{PPAF}) - Large, (24” X 54”) This is the fast growing, fragrant-flowered blue, yes blue hosta, for which we have all been waiting. It has very waxy blue leaves that are enhanced when grown in half a day of cool sun. The light lavender flowers that arrive in late July are very fragrant, unlike other “fragrant blue” hostas. You have got to try this one. **\$20**

‘**Fashionista**’ (M. Zilis 2011) - (Sport of ‘Designer Genes’) - Medium, (14” X 30”) You can blame me for this one. The first time I saw this white-margined sport of the bright yellow ‘Designer Genes,’ I had to have it. Curious to see how well it would grow I tested a few plants for Mark and it passed with flying colors. It has the same bright red petioles and scapes as its parent. A riot of color in a container. **\$20**

♥ ‘**Honey Bear**’ (Solberg 2017) - (‘Honey Pie’ sport) - Large, (20” X 42”) The rich green and yellow combination of color of this fragrant-flowered sport of my hosta ‘Honey Pie’ is an eye stopper in the garden. At maturity the leaves become rounded and somewhat puckered with a dark green leaf center and a honey-

colored margin. Like its parent it is sun tolerant and grows rapidly. **\$25**

♥ ‘**Honey Pie**’ (Solberg 2012) - (‘September Sun’ X *H. plantaginea*) - Large, (18” X 40”) This may have been my favorite hosta this summer. Despite all the heat, boy did it grow. The honey colored leaves pucker with age and fragrant flowers follow in late summer. It is a large hosta, a cross of ‘September Sun’ and *H. plantaginea*, having the best characteristics of both parents. Give this one a little extra sun also. **\$20**

‘**Imperial Palace**’ (D. & J. Ward 2009) - (‘Pin Stripe Sister’ X unknown) - Large, (26” X 48”) This hosta is a striking light yellow-centered, green-margined beauty that believe it or not is easy to grow. It makes a shining beacon in the garden if given some morning sun. I think this is one of Dick Ward’s best. **\$20**

♥ ‘**Infatuation**’ (Solberg 2014) - (49 Best X ‘Red October’) - Small, (10” X 20” or larger) This very special hosta resembles a bird in flight. It is a very waxy blue *H. kikutii* in form with rich cranberry colored petioles. The leaf margins gently undulate, effortlessly gliding on a warm summer breeze. It blooms in August with purple flowers on arching scapes. This seedling of mine is a great mix of the species *H. longipes*, *H. kikutii*, and *H. pycnophylla*. It demands attention and deserves a special spot in the garden or a ceramic container. Beautiful purple scapes produce seed pods easily. Great for hybridizing. It is love at first sight. **\$25**

‘**Jet Black**’ (D. & M. Beilstein 2017) - (Mary Chastain 04 B1 streaked seedling X ‘Skylight’) - Large, (24” X 56”) This is a very blue hosta that grows quickly into a large mound. It has lots and lots of powdery white wax that softens the appearance of its sturdy cupped and puckered leaves. Near white, nicely proportioned flowers appear in late June. Another great landscape hosta from Doug Beilstein. **\$25**

‘**Jetstream**’ (D. & M. Beilstein 2013) - (Seedling of *H. yingeri* OP seedling) - Medium to Large, (26” X 40”) I am a sucker for a waxy blue hosta. I also like hostas that make perfect clumps, with all their leaves neatly arranged in just the right place. This medium-sized hosta, with the help of a little morning sun, is the perfect combination of both. A seedling of Doug Beilstein, plant this one next to ‘June.’ **\$20**

‘**Kaleidochrome**’ (Q & Z Nursery) - (seedling from Japan, possibly *H. longipes* and *H. montana* parentage) - Small to Medium? (10” X 22”) The most exciting hosta that I have seen in years, this beauty is streaked bright yellow and green. My narrow leaves have widened the second year but the variegation is just as good. To my delight it is fertile and I am trying to imagine the wondrous seedlings that will soon appear in my seedling flats. It blooms here in June on tall straight scapes, almost *H. montana* like. **\$25**

‘**Leapin’ Lizard**’ (D. & M. Beilstein 2013) -

([‘Splashed Leather’ X ‘Treasure Island’] open pollinated) - (Medium, (12” X 30”) This medium-sized hosta has it all. The attractive green leaves are highly ruffled, folded, and heavily puckered. Every leaf is a little different resulting in a wild and crazy hosta. This seedling of Doug Beilstein’s is not only a First Look winner but a sure show stopper in the garden. **\$30**

♥ ‘**Mango Salsa**’ (Solberg 2011) - (*H. clausa normalis* F2 seedling X ‘Strawberry Banana Smoothie’) - Medium, (12” X 20”) Maybe the best of this red seedling cross, this hosta is sun tolerant, has unusual wavy yellow leaves and red on both sides of the petiole into the leaf and red scapes. It has lavender flowers, maybe with a little red, and is a great breeding plant, fertile both ways. Light years away from its sibling ‘Smiley Face,’ an equally stellar hosta. **\$20**

‘**Megan’s Angel**’ (D. & M. Beilstein 2009) - (Sport of streaked ‘Blue Angel’) - Huge, (22” X 54” or larger) This one of Doug Beilstein’s is a sport of the classic ‘Blue Angel,’ named for his daughter. The huge blue leaves emerge with this wide, soft yellow border that will become white by late summer. It grows well and has the same wonderful near white flower display as its parent. It will grow large enough to fill a whiskey barrel. **\$20**

♥ ‘**Orange Marmalade**’^{PP16,742} (Solberg 2002) - (Sport of ‘Paul’s Glory’) - Large, (18” X 42”) Breath-taking mound of heart-shaped blue leaves with a center that emerges bright yellow, then turns an orangish gold before becoming pale yellow or white depending on the amount of sun. Lavender flowers in July. Beautifully variegated all summer! Yes, it really looks orange-yellow or yellow-orange, like the Crayola crayons. **\$20**

♥ ‘**Peach Salsa**’ (Solberg 2013) - (*H. clausa normalis* F2 seedling X ‘Strawberry Banana Smoothie’) - Medium, (12” X 20”) This bright yellow hosta has puckered leaves that are almost translucent, it glows! It is also a showoff with its bright red, not purple, petioles and scapes. Don’t cut the flowers off this one. A sibling of my ‘Smiley Face’ and ‘Mango Salsa,’ this one is a dappled shade plant that will brighten up any garden path. **\$20**

‘**Pie a la Mode**’ (M. Zilis, M. Vanous 2010) – (‘Color a la Mode’ sport) – Large, (20” X 45”) Large heart-shaped leaves are blue-green with a gold border that becomes white in a sunny location. Grows well and makes a statement. **\$15**

‘**Smash Hit**’ (M. Zilis) - (Sport of ‘Orange Marmalade’^{PP#16742}) - Medium, (14” X 30”) This sport of ‘Orange Marmalade’^{PP#16742} has a much wider blue-green margin than its parent indicating that it is probably tetraploid and will grow a little better. The leaf center is still bright yellow in the spring, turning or-

WHAT HOSTAS HAVE TAUGHT US: PART 2

CONTINUED FROM PAGE 4

Funny how things work out. Aden’s legacy is now blemished, and Florence Shaw has her rightful place in the history of ‘Sum and Substance.’ And we all get the plant. See a happy ending.

But there is more. ‘Sum and Substance’ started to sport in tissue culture and in gardens. Yes, those green streaks started to appear, and green leaf centers stabilized. Lots of green leaf centers began to appear. Every new sport seemed to get a new name which is the way it should be as you will see. Soon there were 19 different sports of ‘Sum and Substance’ in the trade with green leaf centers. ‘Sum Total’ and ‘Lady Isabel Barnet’ lead the way. It then became human sport to compare and contrast. Some folks had to have them all.

A few sports of ‘Sum and Substance’ that appeared to have green leaf margins arose also. One was even a Mid-west Hosta Society convention plant for the Illinois Prairie Hosta Society in 2006, ‘Prairie Sum Shine.’ It was time for ‘Sum and Substance’ to teach us a little something about ploidy. If you have three sets of chromosomes like ‘Sum and Substance’ then you have more color options. As you remember there is one dominant lethal gene for the gold color in hostas, certainly of ‘Frances Williams’ parentage. Instead of green or yellow or dead as choices now there are more. All three genes, (three sets of chromosomes, three gold lethal gene sites instead of just two) could be recessive, green, and the plant would be dark green. If all three genes are dominant, then the plant is dead. But if two genes are green and one yellow, the hosta is chartreuse, ‘Sum and Substance’ color and if two genes are yellow and one green then the plant is light yellow and weaker than ‘Sum and Substance’ and subject to

desiccation burn.

Whew! Did you get all that? I use my fingers to keep it straight, one finger for each set of chromosomes. GGG is lethal, GGg is light yellow, Ggg is ‘Sum and Substance’ ggg is green. If triploids can give us three colors, imagine what tetraploids can give us. GGGG, lethal, GGGg light yellow, GGgg medium yellow, Gggg dark yellow, gggg, green. Pretty cool trick. Does this change your approach to sport fishing?

But wait there is still more! Green wide-margined sports began to also appear like ‘Sum of All’ and ‘Titanic’^{PP12402} and our first thought was that these must be hexaploid, three sets doubled to six. Hexaploids are pretty rare even in the plant world so this would have been pretty exciting. We also began to notice that these plants were less vigorous than their all yellow sports which is counter intuitive. More green should mean more vigor. Some of these sports remained very small like ‘Lodestar’ and ‘Eagle’s Nest.’ This is where the scientists stepped in.

If you want you can read it for yourself, I can send you a copy, (Plant Syst Evol (2012) 298:1037–1043). Ben Zonneveld and Warren Pollock conducted an extensive study of the sports of ‘Sum and Substance’ and found



Hosta ‘Blue Perfection’

none to be hexaploid but most to be aneuploid or missing some genetic material. They are short some chromosome fragments lost in the sporting process. They do not grow well because they are broken plants. My ‘Final Summation’ is a good example. It is not 3-3-3, or totally triploid but 2.9-2.9-2.9. It has lost some of its marbles.

They examined some hybrids of ‘Sum and Substance’ also, it does set viable seed occasionally. ‘Raleigh Remembrance’ a hybrid of ‘Sum and Substance’ and *H. plantaginea* a diploid is 2.5-2.5-2.5, right down the middle. Other hybrids are above or below the midpoint but none are diploid or triploid. Check it out, the table is in English and easy to read. It is a big fascinating mess!

Finally, unfortunately ‘Sum and Substance’ also taught us about Hosta Virus X. I think ‘Gold Standard’ was the head instructor of this lesson but the wide distribution of ‘Sum and Substance’ has brought the presence of the virus to almost every gardener’s attention. Many have freaked out, others do not care. For me it is easily controllable by destroying garden plants and getting all my nursery stock in a plastic bag from a tissue culture lab.

Ready for Part 3? Maybe I will continue this theme on hosta pests. Probably not. Hope you made it to the end. Class dismissed.

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ange, and then white as the season progresses. Certainly a winner. **\$20**

‘**Tidewater**’ (M. Zilis 2003) - (*H. kikutii leuconota* X ‘Elegans’) - Large , (18” X 40”) This is a cool hosta! It is a cross between a white backed *H. kikutii* and ‘Elegans’ by Mark Zilis. It is large and intensely blue but has long narrow leaves with lots of veins. It has lots of white wax and lots of character. You must have this one. **\$15**

‘**Victory**’ (M. Zilis, Solberg 2003) - (Sport of ‘Elatior’) - Huge, (36” X 84”) This is an awesome hosta, one of the best ever. Yes, this wide white-margined sport of ‘Elatior’ requires a substantial piece of garden real estate but its stately upright habit deserves a prominent spot. Don’t have room? It makes a great pot plant also. Hosta of the Year for 2015. **\$15**

‘**World Cup**’ (D. Beilstein & M. Zilis, M. Zilis 2006) - (‘Komodo Dragon’ X ‘Super Bowl’) - Large, (20” X 44”) This hosta is destined to find its way into the Top 25. It is also the one that got away. Selected from Doug Beilstein’s seedlings by Mark Zilis’ keen eye, this very tall and very upright bright yellow hosta is a showstopper where ever you see it. Grows well in deep shade or cool sun. **\$25**

Miniature and Small Hostas:

‘**Appletini**’ (M. Zilis, M. Vanous 2009) - (Yellow sport of ‘Blue Dimples’ X ‘Shining Tot’) - Mini to Small, (6” X 14”) A great new mini, maybe the best of the “tini” series from Mark Zilis, it has the bright



Growing Hostas is FUN!

yellow color, the shine, good substance, and cute leaf shape to make this fast growing hosta a star in the garden or in a container. It also has nice lavender flowers in July. **\$15**

♥ ‘**Baby Blue Eyes**’ (Solberg 2006) - (‘Cody’ X ‘Dorset Blue’) - Mini-Small, (6” X 16”) This little hosta is a darling. It is a very cute tight, flat mound of heart-shaped pretty blue leaves that grows fast. Not too big for a large trough, it is also tough enough to show off in the garden. Light lavender flowers on short scapes in July. **\$15**

‘**Baby Booties**’ (D. & M. Beilstein 2012) - (‘Swoosh’ X *H. capitata* F2 seedling) - Mini, (7” X 12”) I have been very impressed with this great, true miniature hosta. Its leaves have a very showy white margin and a cute rounded shape. It is a seedling of Doug Beilstein’s, a F2 cross of ‘Swoosh’ and *H. capitata*. It also grows very well in the nursery. **\$15**

‘**Brentwood Blues**’ (S. Watson 2013) - (Sport of ‘Rhythm and Blues’) - Small, (8” X 20”) This little hosta is a wonderful sport of ‘Rhythm and Blues’ from Steve Watson of Brentwood, Tennessee. It has bright white margins on blue-green leaves with well-proportioned flowers. It has a rare combination of colors. **\$15**

NEW ‘**Cricket**’ (D. & J. Ward 2010) - (‘Jiminy Cricket’ sport) - Mini, (4” X 14”) This little hosta has small green, highly ruffled leaves with good substance. It grows fast and makes a great garden plant for your mini bed or the front of the border. We all need a few green guys to show off the others. **\$20**

♥ ‘**Coconut Custard**’ (Solberg 2007) - ([‘Blue Cadet’ X ‘One Man’s Treasure’] X o.p.) - Mini, (5” X 12”) This fast growing mini with heart-shaped leaves is bright waxy yellow in the spring with purple petioles. It has good substance and makes a very sturdy plant. A highlight of the spring season. **\$15**

♥ ‘**Cookie Crumbs**’ (Solberg, M. Zilis 2002) - (Sport of ‘Tiny Tears’) - Mini, (5” X 10”) Finally a clean white-margined mini reminiscent of *H. venusta*. This very flat mound of green heart-shaped leaves has a surprisingly wide white margin. It has. purple flowers in June. **\$20**

♥ ‘**Cracker Crumbs**’ (Solberg 2002) - (Sport of ‘Shiny Penny’) - Mini, (6” X 12”) The miniature bright gold leaves have a shiny, dark green margin that appears hand painted. Good substance, growth rate and lavender flowers in July. It is perfect for troughs. **\$15**

♥ ‘**Crumb Cake**’ (Solberg 2008) - (‘Cinnamon Sticks’ X ‘Cracker Crumbs’) - Small, (4” X 12”) This rapidly growing hosta makes a very tight flat mound of honey-gold round leaves with mahogany petioles that are shiny, wonderfully wavy, and have very good substance. Its mahogany scapes have pretty lavender flowers in July. It is a cute little

hosta tough enough for the garden but deserving of a very special spot. I just love it! **\$15**

♥ ‘**Curly Fries**’ (Solberg 2008) - (‘Pineapple Upsidedown Cake’ seedling) - Small, (5” X 16”) Just look at a photo. I will add that the agave-looking leaves are stiff as a board and you can see that our award winning ‘Curly Fries’ is the most unique hosta to be introduced in some time. Best grown in half a day of sun, its highly ruffled narrow leaves emerge yellow and then fade to near white. The scape is deep purple, topped with lavender flowers. It makes a great container plant or grows very well in the garden. You just have to touch it. **\$15**

♥ ‘**Dragon Scales**’ (Solberg 2018) - (‘Dragon Tails’ sport) - Mini, (5” X 10”) Everyone loves ‘Dragon Tails’, well this is a green form of that ruffled, narrow-leaved mini. It grows quickly and is perfect for a feathery upright addition to a bowl of yellow and variegated minis. Pale purple flowers appear in July. **\$15**

‘**Dragon Tails**’ (W. Zumbar) - Mini, (5” X 8”) This bright yellow mini is best grown in a little strong light to accentuate the tight rippling along the narrow leaf margins but too much will bleach it white. It makes a cute little tuft of foliage with pale purple flowers in July. It reblooms here for me on a second flush of summer foliage. **\$15**

‘**Fruit Cup**’ (D. & M. Beilstein 2013) - ([[‘Minuta’ F1 seedling B X ‘Shining Tot’) X (‘Lakeside Looking Glass op.)) - Small, (8” X 13”) This almost mini has very round dark green leaves that amazingly are cupped and puckered. It grows pretty fast, too. A great container and garden plant. **\$20**

‘**Itsy Bitsy Spider**’ (G. Johnson) - (‘Hadspen Heron’ seedling) - Mini, (2.5” X 6”) This hosta has a flat spider-like habit, short, narrow leaves with surprising substance. It is perfect for the trough or fairy garden. Light lavender flowers in July. **\$15**

‘**Ladybug**’ (D. & J. Ward 1996) - (‘Vanilla Cream’ seedling) - Mini-Small, (10” X 22”) I like minis that grow and look a little different. This hosta is both. It is an interesting yellow seedling from ‘Vanilla Cream’ and Dick Ward that has ruffled leaves and a rapid growth rate. It is a large mini but still a perfect fit with the rest of your little ones. **\$15**

‘**Lemon Love Note**’ (D. & M. Beilstein 2016) - (‘Quill’ X op. seedling) - Mini-Small, (10” X 20”) This little hosta is better than it looks in the photo. It is a wavy, highly ruffled mini that grows rapidly into a neat bright yellow mound. A seedling of Doug Beilstein’s, it has nice lavender flowers, too. And I just love the name. **\$15**

‘**Lemontini**’ (M. Zilis 2009) - (Sport of ‘Blue Dimples’ X ‘Shining Tot’) - Mini, (7” X 12”) This is one of the “tini” series from Q & Z Nursery. I think ‘Appletini’ is probably the best of the group but this little

bright yellow hosta comes in a close second. It grows well and its bright color will delight you in early spring. I have been impressed with it even as a liner. **\$15**

‘**Lime Zest**’ (M. Zilis 2009) - (‘Shining Tot’ X unknown) - (6” X 14”) This little hosta was a surprise last summer. It held its dark green color all summer and even decided to bloom in August despite the horrible weather. It is fast growing and an excellent mini to add to your collection. Everybody needs a little green. **\$10**

‘**Limey Lisa**’ (W. Zumbar, K. Walek AHS (R) 2009) - Mini, (6” X 21”) This little hosta has unique limey green leaves, brighter in spring, that are round and deeply cupped for their size. It is very vigorous and makes a great garden plant, useful as a groundcover or from of the bed specimen. It has purple flowers in July. **\$15**

♥ ‘**Shiny Penny**’ (Solberg 1997) – (‘Lemon Lime’ X ‘Shining Tot’) – Mini, (5” X 12”) This true mini has bright yellow teardrop-shaped leaves on a flat mound that contrasts well with other narrow-leaved minis. Nice proportioned purple flowers in July. **\$15**

‘**Tears of Joy**’ (P. Black & T. Johnson, Sebright Gardens 2005) - (Sport of ‘Tiny Tears’) - Mini, (4” X 13”) This little *H. venusta* like mini has green leaves that are folded and twisted when they emerge. It is a fast grower and spreader, perfect for covering a container or trough. The flowers appear to be yellow, lots of pollen but no petals. It is different. **\$15**

‘**Urchin**’ (D. & M. Beilstein 2013) - ([‘Candy Dish’ X (*H. pycnophylla* X ‘Harvest Dandy’) X ‘Raspberry Sorbet’] X ‘Atom Smasher’ op.) - Mini, (8” X 13”) This unique little hosta has leaves with lots of ruffles that appear to have points at their ends. The green leaves stick up from the clump like spines, urchin spines. The scapes and seed pods are dark purple. Another winner from Doug Beilstein. **\$15**

‘**Wonderful**’ (R. Goodwin 2005) - (‘Little Wonder’ seedling) - Mini, (3” X 6”) This tiny hosta has teardrop-shaped yellow leaves that form a very cute delicate miniature mound. Hybridized by Randy Goodwin, it is a perfect container hosta or grow it as Randy does in a special bed just for minis along a walk. **\$15**

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All hostas are container grown and shipped bare root. Hostas can be shipped year round but usually travel best from May-June and August-September. Shipping is by UPS and the cost is \$15.00 per order except for all orders to the Rocky Mountain States and the West Coast that will be shipped by USPS Priority Mail at a cost of \$25.00 per order.

Please include payment with order. Make checks payable to Green Hill Farm, Inc. And we now take VISA and Master Card so you can call in your order. Order early as some hostas may be in limited quantities. We will not substitute but will send a refund unless you request otherwise.

All our hostas are satisfaction guaranteed. If for any reason you are not satisfied with your hostas, call us at the nursery immediately and return the plants within 5 days and we will gladly replace the hostas or refund your payment.

2019 Raulston Blooms

April 5-6

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For more information visit:
www.ncsu.edu/jcraulstonarboretum

in Rehoboth Beach, DE

For more information visit:
**[http://www.dixiehosta.net/
regional-convention/](http://www.dixiehosta.net/regional-convention/)**

in Green Bay, WI

For more information visit:
www.ahs2019event.org

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 Date _____ Desired Shipping Date _____

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3 Digit Sec. Code _____ Exp.date _____

Quantity	Hosta Name	Price	
REGULAR UPS SHIPPING or		15.00	
USPS PRIORITY MAIL (west of Rockies)		25.00	
TOTAL			

We love to have visitors. If you are coming from a distance, please call for an appointment to make sure that we are not on a field trip or "Company Lunch." We will only be open Saturdays this spring and of course Monday, Memorial Day. The dates are Saturday, April 13, April 20, April 27, May 11, and May 18 from 9:00 to 4:00. We will also have our annual Memorial Day Festival, Monday, May 27th. (Please note that we will be open on Monday only of that weekend this year.) We will also be open Saturday August 10th for our "Lucky 13 Sale," all hostas \$13.00!!! Please check our website for sale dates and directions to the new nursery in Franklinton. We will have a wide selection of our hostas available at very reasonable prices as well as ferns, conifers and maybe a few other surprises. Hope to see you soon.

Our eight page newsletter printed twice a year
One year \$10.00 | Three years \$25.00



Hosta ‘Curly Fries’

‘Curly Fries’ wins the Benedict Garden Performance Medal

At the AHS National Convention in Philadelphia last June, much to my shock and surprise, my little yellow agave-like hosta ‘Curly Fries’ won the Benedict Garden Performance Medal Award. I was literally speechless when it was announced, well almost speechless. This is the highest award a hosta can be awarded by the American Hosta Society.

There are a series of garden performance awards that are given based on the vote of the AHS Garden Judges. If you are not one, it is easy to become a voting judge. Just contact Michael Greanya, AHS Judging/Exhibitions VP and he will sign you up. There are three levels of awards, a sort of stairway to heaven, Honorable Mention, Award of Merit and the Benedict Medal. Hostas are nominated by the hybridizer or the AHS. Award of Merit winners are chosen from Honorable Mention awardees and then one Benedict winner is chosen from that year’s pool of Award of Merit winners.

The award is given to hostas that grow well in all regions of the country. Yes, it has to do with vigor but also how well they look during the entire growing season. I think it is also somewhat of a popularity contest, but that is alright. The hostas we tend to love the most are the ones that stay with us. In the case of ‘Curly Fries’ the name may have put it over the top. Just kidding.

To say the least I am thrilled and so proud of my little curly hosta. I am also grateful to all of you that helped select it and so glad that it grows well for you. Whether it is a mini like it is in my shady, tree root filled garden or a larger plant in yours I am glad it makes you feel good. It is a fun hosta.

Lucky \$13 Sale is on August 10th this year!

It was crazier this year than last. It was like the old days when some customers came extra early and others made it just in the nick of time. Yes, we are having the Lucky \$13 sale again and it is on the 10th of August. Why not? I love the idea of all my hostas being the same low price for just one day of the year. Yes, all the hostas that are ready to sell in the nursery, not the newly potted little babies, but all the hostas even the \$50-dollar ones are just one low price, \$13.00 each.

The rules are the same as last year:

All hostas with a name sign in the block are \$13.00 each. No limit!

This price is for one day only, Saturday, August 10, 2019, 9-4:00 at the nursery only, rain or shine.

We will supply labels and markers, but you make your own labels.

We will bag your hostas for you.

Cash, check, and Visa, MasterCard, and Discover accepted.

You do not have to be present to participate, just send a friend to the nursery on August 10th with your want list. Make sure they are willing to deliver because we cannot ship hostas bought at this sale.

The local gossip 2019

So, come early and stay late, I will have some drinks and goodies for you, and I guarantee you a fun time!!!
Hostas are supposed to be fun!™

The Hosta Finder is back and online.

Looking for a hard to find hosta, maybe the one at the top of your want list? Good news, the Hosta Finder is back. In association with the American Hosta Society’s new and improved registration website the American Hosta Growers Association has put the AHGA Hosta Finder online. This being the first year of operation, we are still working the bugs out, but it is ready for you to try out.

Just go to *HostaGrowers.org* and click on “Hosta Finder” on the bar at the left of the homepage. At the next screen type in the hosta name that you are searching for and as if by magic a list of growers will appear. Prices are also shown for easy comparison, just remember the size of the plants may vary from nursery to nursery. Try something easy first, like ‘Guacamole’ or ‘Curly Fries.’

You can also access the Hosta Finder through the AHS registration website, *HostaRegistrar.org*. Again, search for the hosta in which you are interested and then click the Hosta Finder tab at the far right. Have fun with this. In the future we plan to make further improvements to the Hosta Finder and make it more phone friendly.



Hosta ‘Gabriel’s Wing’

along for the ride. I assumed we were visiting another nursery which turned out to be true, a wonderful *Rohdea* nursery. That is another story for another time.

When we arrived at Mr. Hagiwara’s home and nursery, we were taken around the back behind the green-houses and there was a huge row of *Hosta* ‘Sagae.’ It was originator’s stock! There was also the blue *H. fluctuans* plant there from which it had sported at the front of the row.

We were told this story about the origin of ‘Sagae.’ We all have heard that the Japanese eat hostas. It is true, they eat the fresh shoots as the emerge in the spring. *H. fluctuans* is the preferred hosta for eating and in spring decades ago people would go up into the mountains and taste several of the emerging plants and dig up and bring the best tasting ones back to propagate in their “vegetable gardens.”

Mr. Hagiwara’s grandfather was growing a large patch of these selected hostas for eating in Sagae when the sport appeared right there in the crop row. It was then removed and propagated. This probably occurred over a hundred years ago.

One more interesting thing, in this country we plant trees in the small cutouts in the sidewalks of our main streets. In Sagae they have the hosta ‘Sagae’ spaced every fifteen to twenty feet in those holes in the sidewalk on main street. It can handle lots of sun in the northwestern part of Honshu. Can you believe it? Very fun.

Special club hostas offered.

First, let me thank all the local hosta clubs that ordered our “Club” hostas last year. Every year we try to find a group of new hostas that we offer to hosta clubs and this year we can offer four of our newest hostas at a special wholesale price. These hostas do not appear on our wholesale list!!! Please order early as some hostas may be limited. We can send them bare root or in the pots, just ask about the best shipping times.

The club hostas for this year are ‘Bear Necessities’ and ‘Honey Bun’ both sports of our fast growing and fragrant-flowered ‘Honey Pie,’ ‘Gabriel’s Wing’ a great yellow-margined sport of ‘Empress Wu’ and ‘Holar Purple Flash’ a hosta that blushes purple in early spring. **Clubs can also order off our wholesale lists, both liners and bare root plants as quantities allow.**

We are willing to work with you to make your next hosta sale a success, just let us know how we can help. Remember, most of these hostas are pictured in the Retail or Club section of our Website, *www.HostaHosta.com*.



Mr. Hagiwara and Hosta ‘Sagae’

The story of ‘Sagae.’

During my trip to Japan last July with Mark Zilis and his son Andy, our guide Hiroshi Abe took us to the town of Sagae, yes, the one the hosta was named after. As for much of the trip I had no idea what the next stop in this whirlwind trip would hold; I was just pretty much just

Want More “Gossip?”

You can now subscribe to the “Gossip Jr.”. Published twice a year in August and November our black and white newsletter of eight letter sized pages will feature articles about hosta science and philosophy, gardening tips and other hosta thoughts that wander through Bob Solberg’s mind throughout the growing season. Less than one column of space will be reserved for commercial messages for Green Hill Farm so there will be much more hosta information than advertising. Cost is \$10.00 per year or

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Hosta ‘Twist Tie’

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