

# The American Hosta Society

April 2023

eNewsletter



H. 'Justice'M. Zilis 2003(Photo by Mary Vertz)

### **Table of Contents**

#### **Bob Saathoff**

Vice President Publications

#### Mary Vertz

eNewsletter Editor

#### Josh Spece

Web Editor-in-Chief

Andy Marlow Glenn Herold Warren I. Pollock Clyde Crockett Don Rawson Featured Columnists

<u>President's Message</u> - Andy Marlow	3
Hostas and Associates - Glenn Herold	5
GO HOSTAS! - Warren Pollock	9
<b>Book Notice</b> - Clyde Crockett	17
Hosta Happenin's - Don Rawson	20
<u>Hybridizer's Corner</u> —Don Rawson	26
And In Other Hosta News	34
AHS Advertising	35
Support Our Advertisers	43

## Receiving the AHS eNewsletter is FREE and EASY!

To subscribe to the American Hosta Society eNewsletter just click on this link:

http://www.americanhostasociety.org/Publications/enewsletter.htm

Enter your name and email address in the spaces provided. You will be sent a confirmation by email to which you must respond in order to be placed on the distribution list. You will then automatically receive all future AHS *eNewsletters* to enjoy!

You may unsubscribe at any time by going to the same link.



### President's Message Andy Marlow, Hopkins, MN

What's a hostaphile supposed to do in the winter time? How do you fill up all that time you would spend planting, weeding, mulching, fertilizing and more during the growing season? Some lucky ones flee to warmer climes while their hostas enjoy their much needed winter rest. Some participate in the AHS Online Auction that recently concluded. Others are busy nurturing their little seedlings emerging under light. Still others are eagerly awaiting the publishing of online catalogues for their favorite hosta vendors and dreaming about spring.

But for me, the best way to spend your time is to get together with fellow hostaphile and learn more about the friendship plant. Hopefully you belong to a local hosta society that offers educational programs. My Minnesota Hosta Society does just that. In early February, Grace Anderson, Senior Research Scientist at the University of Minnesota Plant Pathology Lab spoke about hosta pests beyond HVX, although she was Dr. Ben Lockhart's chief assistant when he researched HVX with an AHS grant. She's the go-to expert on HVX now that Dr. Lockhart is retired. Her talk both frightened and delighted about 60 hardy Minnesota hosta fans.

Late in February I took the opportunity to attend the Winter Hosta Symposium in Brookfield, Wisconsin. It's put on annually by the Midwest Regional Hosta Society. This year's event was dedicated to the late Jack Barta, who pretty much single-handedly revived the event and moved it from suburban Chicago to suburban Milwaukee.

The Symposium was a single day chock full of useful and interesting information. We got a tour around Glenn Herold's garden. We learned far more than I ever wanted to know about slugs and other hosta pests from retired Iowan State University professor Donald Lewis. Josh Spece of In the Country Garden and Gifts joined us by Zoom to highlight some of the new and forthcoming hosta gems. Also by Zoom, Bob Solberg shared with us his vision of the future of hostadom and the AHS. Mark Zitis reminisced about his hosta adventures with the late Bob Olson. And, finally, we learned a great deal about the menace of jumping worms from Cindy Tomashek, who has had entirely too much experience with them. All of that, plus two great hostatality sessions with the 100 or so attendees made for a very satisfying experience.

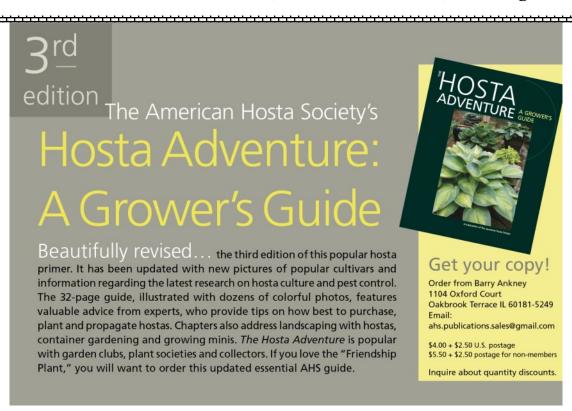
By the time you read this, another great learning/fellowship opportunity will have passed in the form of the 30th annual Great Lakes Region Hosta College in Piqua, Ohio. A choice of classes, an auction, raffle, vendor area and a gift plant were a great mix of activities.

#### A little AHS news:

I have made a couple of committee changes. I eliminated the Social Media Committee and assigned its duties to the renamed Public Relations Committee, which will now be called the Marketing and Publicity Committee. My hope is that this committee will develop and implement a coherent strategy for increasing the visibility of AHS in the public consciousness. I have appointed Tammy Borden of New London, Wisconsin, to chair the renamed committee. She has been doing many of the duties in the job description for this position while serving as AHS Executive Vice President.

I have appointed, pending Board of Directors' approval, Janet Hommel Mangas of Greenwood, Indiana, as editor of *The Online Hosta Journal*. Janet is just finishing up her second term as Vice President Awards and Honors for AHS. On Twitter she describes herself as "Tea drinker, Hosta planter, letters of the alphabet arranger, encourager, laugher and Hoosier Heartland gardener." She's an excellent writer and has a wonderful sense of humor. She's been very active in the Indianapolis Hosta Society and is currently serving as Vice President, Programs.

Chuck Zdeb is already serving AHS as chair of Hosta Shows, but he volunteered – **VOLUNTEERED** – to be chair of Hosta Judge Training. He previously served as Vice President Awards and Honors, and VP Judging and Exhibitions for AHS. He's been a show judge since 1994. He says, "I have taught more Judges clinics than I can count." Chuck is a member of both AHS and the Georgia Hosta Society.. He's held most positions within the GHS, including President and Treasurer. He's been involved in most of GHS' leaf shows as Show Chair, Classification Chair, and Judges Chair.





## **Hostas and Associates**

Glenn Herold, Cedarburg, WI

#### Phytogeography: The Geographic Distribution of Plants

**By Glenn Herold** 

Ever since I was a graduate student, somewhere in the middle of the Jurassic period, I have been fascinated by the geographic distribution of plants, known as phytogeography. Why do many North American plants have similar Asian counterparts? There is Bald Cypress (*Taxodium*) in the Southern US and Dawn Redwood (*Metasequoia*) in China. Flowering dogwood (*Cornus florida*) is similar to the Japanese Kousa dogwood (*Cornus kousa*). Even herbaceous plants, such as our common Jack-in-the-pulpit, have Oriental twins. Japanese spurge (*Pachysandra terminalis*) has a Southeast US counterpart, the Allegheny spurge (*Pachysandra procumbens*). The short answer is that they came from a common gene pool and became separated at some point in the distant past.



Cornus florida flowers



Cornus kousa flowers



Pachysandra terminalis flowers



Pachysandra procumbens flowers

AHS eNewsletter 5 April 2023

Charles Darwin, in his study of the finches on the Galapagos Islands, surmised that organisms change over time due to their genetic differences and resulting ability to adapt to different environmental conditions. This is known as survival of the fittest. We can even see this in a local example. Eastern Redbud, *Cercis canadensis*, is native from central Illinois south to Florida. However, a small pocket of the plant was discovered around Columbus, Wisconsin and has proved to be more cold hardy than the Southern redbuds. It is the same plant species but with genes that allow it to survive colder conditions. Sometimes distinctions within a species can be easily seen, such as in humans. In plants, though, the genetic variations are less obvious.

Fossil records show that in the mid-Miocene period, about 10 million years ago, Giant Sequoias (*Sequoiadendron giganteum*), the largest trees on earth, and their close relatives, were common in the Northern latitudes, far north of where they are found today, which is a narrow sliver on the western slope of the Sierra Nevada mountains. Fossil records of plants resembling sequoias have been found in Alaska, Greenland, Iceland, England, and parts of Europe. They had been part of an ancient northern forest that covered an area akin to where the boreal forest now exists. As some of these northern areas cooled, sequoias died out because they did not have the genes that allowed them to adapt. Other, more cold hardy species, such as spruces and firs, took their place.

For thousands of years, Native Americans, who called the sequoia Wawona, esteemed it and maintained the population with respect and dignity. When Europeans invaded the area in the mid-1800's, they threatened the population with logging. Fortunately, naturalists such as John Muir put a stop to this, and most sequoia forests are now publicly owned. Currently though, sequoia populations are once again in jeopardy because of heat and fire, exacerbated by climate change. Whereas geologic time moves slowly, and plant populations can move and adapt, climatic transformations brought on by climate change move quickly and plant populations are not able to adapt.

This slow drift of plants being pushed to warmer latitudes likely occurred during the last ice age, about 2.7 million years ago. Tree populations disappeared from Alaska and a steppe-tundra flora replaced it. As the ice retreated, seeds of other plants were carried by the glaciers and deposited in northern areas. Some succeeded while others failed. Windblown seeds of trees such as spruce moved rapidly across Canada to the East due to strong Northwest winds that blew off the ice sheet. The result was the spruce forest, which now runs from Alaska to Newfoundland. It is part of the northern boreal forest, which also traverses Russia and Scandinavia. Glacier movement may explain why similar species sometimes appear in widely separated parts of the world. Those seeds that survived found their niche and the species changed over time, just as Darwin's finches did. Certain genetic variants became dominant while others disappeared. This is sometimes referred to as speciation due to microevolution, the change

in gene frequency that occurs over time in a population.

We see examples of microevolution in the hostas native to Korea. *Hosta clausa* has wide morphological variation because it is found over many geologic sites, while species with narrower distributions such as *Hosta tsushimensis* and *Hosta jonesii*, are similar morphologically and genetically.



Hosta tsushimensis

However, this brings up another question: Why are there no hosta species in North America while there are with other Asian plants? Well, maybe there are. Hostas are in the Asparagaceae family, which includes Agave and Yucca, two



Hosta jonesii

species that morphologically and genetically resemble hostas. Perhaps they have a distant relative in common with hostas.

With our current global market and our ability to literally reach the other side of the globe within hours, the boundaries of natural plant populations have become blurry. So much has our environment been disturbed and so rapidly is the climate changing that a "natural" environment may no longer exist, and plant populations may not have the thousands of years to naturally move to hospitable environments. To save some of the species that are now endangered we may have to revert to "assisted migration." Giant Sequoias are being propagated and planted in areas where they can thrive. To save other plants, we may have to revert to similar practices.

Plants of a given region are generally able to resist invading pests of the area but may not be able to resist pests of a different region. North American ash trees succumb to the emerald ash borer, while Asian ashes are resistant or tolerant. American elms die from Dutch elm disease, while Asian elms repel it. American chestnuts have been bred with Oriental chestnuts to incorporate the gene that resists chestnut blight fungus into its chromosomes. Though the American and their Asian counterpart are similar in appearance, and likely came from the same ancient relative, their separation for thousands, perhaps millions, of years and exposure to the organisms of the area caused them to develop different tolerances. By hybridizing them now, we are essentially helping the species to survive, something that nature would do but in in much longer time frame.

Living things are globally arranged the way they are because of physical and climatic conditions, interactions with other living things, and their past and present ability to reach other suitable places. Changing climate will expand the range of possibilities for some species while shrinking them for others. We all know that not all hostas require the same environmental conditions or exhibit the same tolerances. By using different species in our hybridizing programs, we are expanding the gene pool and the chances for the survival of the genus. No hosta species should be ignored, for as Thoreau said, "In wildness is the preservation of the world."

Trees and other plants will continue to be in jeopardy. We need to do our part to insure their survival. A man named John Boyle once said, "Trees are the best monuments that a man can erect to his own memory. They speak his praises without flattery, and they are blessings to children yet unborn." Not just trees, I might add, but hostas as well!



H. 'War Paint'
Naylor Creek Nursery 2005



# GO HOSTAS!

Warren I. Pollock, Glen Mills, PA

# GO HOSTAS!

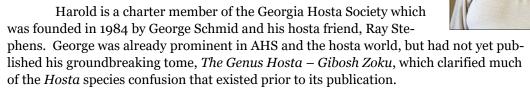
### **HVX** and the Big Box Stores

By Harold McDonell

(Hosta HVX photos submitted by Don Rawson with permission of the individual photographer)

Harold McDonell lives on about six acres of land, where his shade garden space is relatively small and informal in design. Most of his hostas are now grown in containers to avoid the ever-present tree roots and voles. When he retired in 2003, he was the Outside Plant Engineering Manager at BellSouth Corporation.

A member of AHS since 1984, he served on its Board of Directors as VP– Judging and Exhibitions in the early 2000s. Presently, he is the Gifts and Memorials Chair for AHS.



George wanted to introduce hostas to gardeners in the Southeast where it was a virtually unknown plant and seldom grown in southern gardens. The Georgia Hosta Society was his vehicle to do that and he succeeded beyond his wildest dreams. Today, GHS is still a vibrant society that continues to promote the genus *Hosta* and the American Hosta Society. Harold has held a number of jobs in the Georgia Hosta Society including serving as president twice. Since 2015, he has been the editor of *Georgia Hosta Notes*.

Since the late 1990's, he has been hybridizing hostas and has registered 17 hostas to-date. Only two, *H*osta 'Dahlonega' and *H*. 'Dragon's Dream', are currently available from hosta retailers. Several more are in tissue culture and will be available later this year and next year. Due to his advancing age, he has been reducing his hybridizing activities and presently starts only about 3,000 seedlings a year.

There has been much discussion lately in the hosta social media circles about Hosta Virus X (HVX) and much of the discussion has centered on the part played by big box stores in disseminating plants infected with this incurable virus. This article is being written to better inform Georgia Hosta Society members about HVX, how it has been rapidly spread by some irresponsible hosta plant growers and sellers, and what steps we can take to keep this nasty virus out of our gardens.

First some basic information about HVX. It is only one of several viruses that can infect hostas but it is by far the most prominent one we have to deal with. HVX has existed in Japan for a long time, probably for centuries, but was not known in the United States until 1996, when it was first identified in specimens from several mid-western states which had been presented to the University of Minnesota as harboring an unknown pathogen. Its spread in the United States has been explosive, primarily due to the rapid increase of imports of field grown hostas from Europe, the Netherlands in particular. It continues to be spread now in not only imported plants but in locally grown plants as well. It can also be spread through tissue culture but fortunately, most TC labs in the United States have been very vigilant in testing plants going both into and out of tissue culture. It is primarily spread



**Hosta severely infected with HVX**Photo by Matt Wingate

mechanically via tools used in cutting roots and leaves of hostas.

I will not attempt in this article to go into identification of HVX symptoms, or how exactly we can prevent its spread through our practices in our gardens. There are many sources which can provide more accurate and more detailed information



H. 'Sum and Substance' infected with HVX
Photo by Jeff White

than I can. Some of the best information can be found at the Hosta Library, www.hostalibrary.org. An excellent and detailed HVX video presentation by Chris Wilson is posted at the Hosta Library and I encourage everyone to watch it. In the presentation, Mr. Wilson provides numerous pictures of HVX infected hostas and goes into great detail about just what to look for in determining if a plant is infected. Also discussed are steps one can take to prevent spreading it in the garden through unsanitary practices such as failing to properly clean tools between cut-



Hosta showing classic "Inkbleed" symptoms of HVX along the veins

Photo by Brenda Fox

ting and transplanting hostas. He also goes into how to test hostas using AG-DIA test strips developed specifically for identifying HVX. Just about everything you may want to know about HVX is covered in this video. The good news about HVX is that, unlike many other plant viruses, it appears to have no insect transmission vector so it is much easier to control.

Now, how do big box stores factor in on the spread of HVX? Big box stores have become the major retailers of hostas, as hosta popularity has exploded

over the last 25 years. In a quest to meet the demands from their customers for hostas at low prices, they have resorted to using wholesalers who have not been responsible in insisting their growers properly test plants for HVX before, during, and after their propagation.

The administrators of the **Hosta Diseases and Pests** Facebook site have been soliciting pictures of infected plants found in big box stores and large nurseries along with the accompanying plant or pot labels, and have compiled a list of companies providing obviously HVX infected hostas. The list can be found in one of the featured posts on that Facebook page. I would strongly encourage you, if you are purchasing hostas from a big box store, to copy that list and carry it with you when you shop. Then DO NOT purchase any hostas carrying one of those plant/pot labels. Please note that the Proven Winners pot/labeled hostas, which are now beginning to appear in big box stores, have so far proven to be free from infection due to the strict standards placed on Proven Winners provided plants. The only caveat to this information is that those plants are often jammed up against plants from suspect sources, increasing chances that they can become infected on the store shelves through sap transfer from damaged leaves. Plants that do not provide anything more than the big box store labels may come from providers who "fly under the radar" and those plants should also be considered suspect.

Of course, the HVX virus can be found in plants from other sources, but most plants coming from hosta specialty nurseries that deal in tissue cultured plants only, have a much more reliable record of being non-virus plants. I try to stick with them when I purchase hostas, even though the prices most likely will be higher than the same plants in big box stores. I would not go so far as to say don't buy from big box

stores but I do caution anyone who does to be very careful. Check the source of the plant on the labels or pots and look closely for HVX symptoms on any of the plants. Also, keep those plants isolated in pots for a few years before considering planting them in the ground because it may take several years after infection for HVX symptoms to appear in a plant. HVX should be a disease that is easily eliminated from the hosta production process. However, many growers, wholesalers, and retailers have so far resisted adopting the simple steps needed to stop its spread. It will be up to us consumers to stop buying suspect plants from suspect sources. Until we do that and begin negatively affecting sales, HVX in newly purchased hostas will continue to be a major problem.



**Hosta infected with HVX** Photo by Joseph Rand



H. 'Captain Kirk' infected with HVX
Photo by Igor Shket



*H.* 'Winter Snow' infected with HVX Photo by Beth Riegel





#### Identify *Hosta virus X* with the Agdia ImmunoStrip®

Robert Emmitt and Coilin Walsh, Agdia, Inc.

Hostas are prized if not indispensable members of shade gardens throughout Europe and much of the U.S. Their popularity can be attributed to a seemingly endless supply of unique cultivars combined with their utilitarian elegance and understated charm. Moreover, hostas are relatively free of diseases, making them one of the most economically important herbaceous perennials for collectors, hybridizers, commercial growers and landscape designers. Nevertheless, *Hosta virus X* (HVX), a *Potexvirus* characterized in 1996, has spread throughout plant production facilities and distribution outlets, making it the most widespread viral pathogen of hostas in the U.S.

Once infected with HVX, plants remain infected for life as no curative therapies are available for viruses. Therefore, the most effective means of managing HVX is exclusion altogether. Diagnostic testing is the cornerstone of virus management and primary means of identifying infected plants prior to introduction into prized collections. Agdia recognized this and introduced the HVX ImmunoStrip® in 2008.

The inner workings of Agdia's HVX ImmunoStrip® are based on a specific reaction between an antibody on the ImmunoStrip® and a target antigen in the plant tissue sample. In this case, the antigen is HVX, more specifically, a protein produced by HVX, which is essential for its replication within the plant. The antibody binds to the HVX protein, if present in the plant sample, which is processed in the extraction buffer. This binding produces a complex that subsequently binds to a membrane section on the ImmunoStrip®, producing a characteristic magenta test line. Different targets notwithstanding, Agdia's HVX ImmunoStrip® is fundamentally identical to a home pregnancy test and home COVID-19 test. Despite the complexity of the underlying chemistry, Agdia's HVX ImmunoStrip® requires no previous diagnostic experience to use and provides hosta growers with a sensitive, specific, easy-to-use tool for HVX management.

#### **Testing with the HVX ImmunoStrip®**

It is important to understand that HVX spreads easily between and within hosta collections. Consequently, a comprehensive management plan should include screening of incoming and outgoing materials in addition to mature specimens within the land-scape.

ImmunoStrip® kits include the test strips packaged in a desiccated tube, mesh bags prefilled with extraction buffer, and a user guide (**Figure 1.**). We recommend refrigerating kit components when not in use.

#### **Processing your sample**

Once you identify which plant or plants to test for HVX, we recommend allowing the refrigerated kit components to warm to room temperature before use; this typically takes 20-30 minutes. In the meantime, you should remove a tissue sample from the suspect plant. A suspect plant can include anything mentioned above, but a symptomatic plant is always suspect. We recommend using 0.15 grams of plant tissue, leaf or root. This mass of tissue is approximately the size of a quarter or one inch square (Figure 2.). Since HVX is transmitted on tools, we recommend using a new, unused cutting tool for each plant and gloves if possible. Moreover, samples can be cross contaminated as easily as plants and should be treated as positive until a test result indicates otherwise.

At this point, your tissue sample is ready for testing, and kit components have warmed to room temperature. Remove a buffer-filled bag from the re-sealable foil pouch. Holding the bag upright, facing the label, cut the bag open horizontally directly below the label and place the tissue sample between the bag's mesh lining (**Figure 3.**). Using a blunt object, rub the bag vigorously to pulverize the tissue sample, taking care not to spill the liquid contents.



Figure 1.

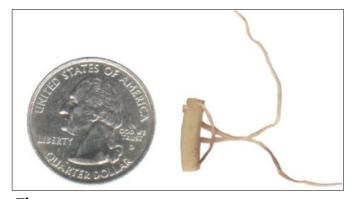


Figure 2.



Figure 3.

The final sample should be a homogenous green or brown liquid (**Figure 4.**). The bag can now be placed upright for three minutes to allow contents to settle. A letter holder works well for stabilizing bags in an upright position.



Figure 4.

#### Performing the test

After three minutes, remove a test strip from the white plastic tube and replace the cap. The unused strips can be damaged by moisture and should be stored in the closed tube.

The strip should be grasped on the end marked "Agdia." Insert test strip in open vertical channel located on the right side of the bag. Insert sample end of test strip until the end is submerged in liquid (**Figure 5.**). The intended level of submersion is marked with arrows and a horizontal line. Submerging the test strip past this line can lead to an inaccurate result. Place the bag with test strip inserted in upright position for 30 minutes, allowing result to develop. When finished with kit components, seal packaging and return to refrigerator.

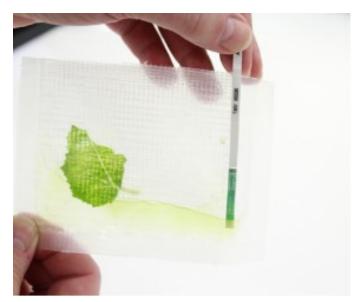


Figure 5.

#### **Interpreting your result**

After 30 minutes, remove the test strip from bag and compare your result to the diagram in the user guide (**Figure 6.**). The presence of a control line only indicates a negative sample, whereas the presence of both control and test lines indicates a positive sample and the presence of HVX. The control line must be present for the result to be valid. A test line only or no lines indicates an invalid result. If you observe an invalid result, please consult the "TROUBLESHOOTING" section of the user guide included with the kit or contact <a href="techsupport@agdia.com">techsupport@agdia.com</a>.

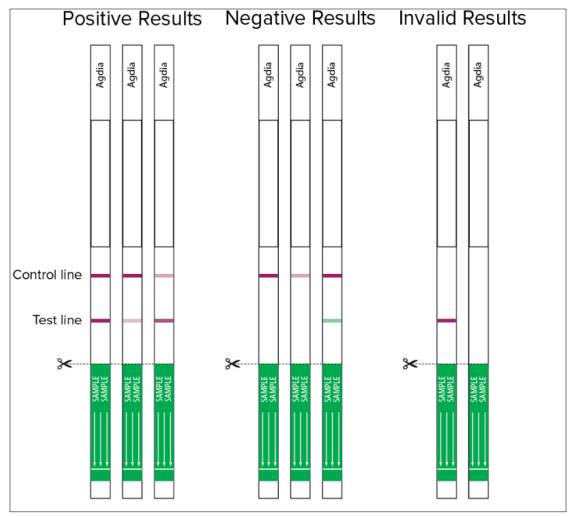


Figure 6.

Agdia's HVX ImmunoStrip® is specific and not known to cross react with any additional viruses proven to infect hostas.

For more information on Agdia's HVX ImmunoStrip®, please visit <u>our website</u>, email <u>info@agdia.com</u>, or phone 1-574-264-2615.



#### **CORRECTION**

UK Garlic Article on Deterring Slugs & Snails

January 2003 AHS *eNewsletter* GO HOSTAS!, page 8, 12th line from bottom next to photo:

The strong variety of garlic is RED DONETSK, not RED DONE.

Several garlic bulb retailers were contacted and all said that any orders for Red Done would be supplied with Red Donetsk. GOHOSTAS!



# **Book Notice**Clyde Crockett, Carmel, IN

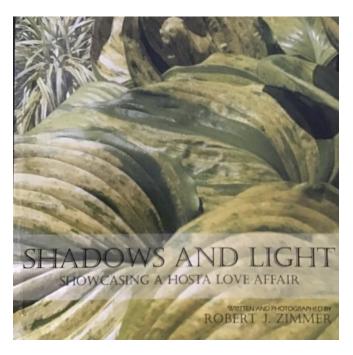
#### **Pictures Perfect**

#### SHADOWS AND LIGHT

Showcasing a Hosta Love Affair

by Robert J. Zimmer (Rob Zimmer Outdoor Publishing: 2016)

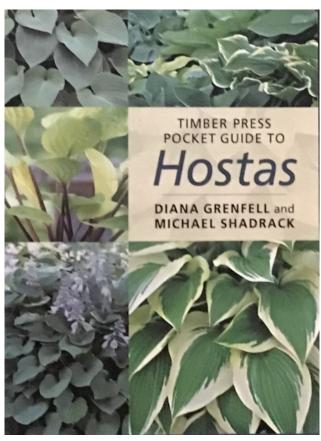
Photographs and Copyright by Robert J. Zimmer, 2015.



### Timber Press Pocket Guide to *Hostas*

by Diana Grenfell and Michael Shadrack (Timber Press, Inc.: 2007)

Photographs by Michael Shadrack.

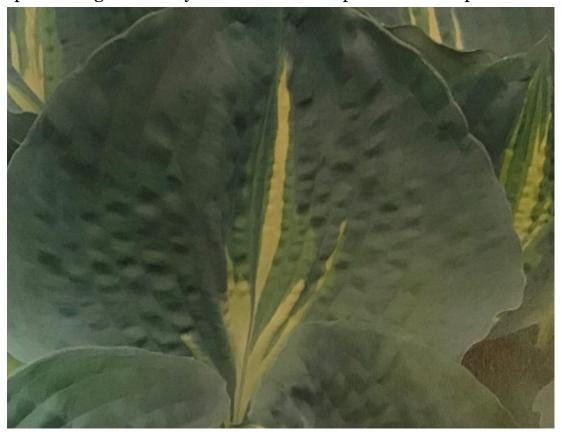


As a small antidote to the possible ill effects of a tough winter and a welcome to Spring, we present, hopefully for your enjoyment, two hosta books to notice. The Zimmer is somewhat a companion to his *Hosta Dance* featured in our March 2019 issue in which I should have included both. The *Pocket Guide* is, as noted in its "Introduction," a follow-up in digest form to their *Color Encyclopedia of Hostas* which for some unknown reason I missed noticing but this will be corrected soon.

Although these books are both "about" hostas, they are in their presentations markedly different. The *Pocket Guide* is in the traditional, omniscient format we are used to: excellent information found in sections on hostas in the landscape, botany, cultivation (watering, containers, fertilizing, mulching), and the obligatory part on pests and diseases. In the Zimmer we have something personal—impressions of the observer-author, his feelings, indeed, his romance with the genus. Sort of a touch of the autobiographical.

It is not because of these differences, but rather because of what these books share that we notice them—each contain exceptionally beautiful photography: Pictures that are perfect.

Among the Zimmer are some spectacular shots of single leaves. Practically all are close-ups of foliage with only a handful of clumps and landscape scenes. Each



H. 'Dream Queen'\_ Photo By Rob Zimmer

measures in the range of 4x6 to 5x7 inches and is accompanied by subjective comments. An example is the one with *Hosta* 'Neat and Tidy': "Anything but, Neat and

Tidy [sic] is one of those monstrous, unruly masses of a plant that I adore so deeply... one big beautiful mess."

The *Pocket Guide* in the "Hostas A-Z" section contains vivid photographs of over 280 plants usually in clumps, each with a description, comments, and a reference to similar hostas.

This in effect amounts to descriptions of nearly 800 plants. Along with the book's lists of hostas in every conceivable color and form, the reader can find just the cultivar they seek.



H. 'Frosted Jade' Photo by Michael Shadrack

Each of our authors has an impressive resume. The late Diana Grenfell was an early (1987) recipient of the Alex J. Summers Distinguished Merit Award of the American Hosta Society. Mike Shadrack got his well- deserved Summers in 2017. His hosta pictures are taken with honest-to-goodness film and are Legion in the hosta world. Besides the fab pix discussed here, I would bet that he also contributed a lot to the commentary.

Have a Happy Spring and Gardening,

Clyde



# Hostas Happenin's Don Rawson, Grand Rapids, MI

#### **Surviving the Mouse Ears Pandemic**

The first Mouse Ears to hit the market was well over two decades ago, and ever since the rodents have been infesting gardens worldwide in lethal proportions. This explains the situation which we find ourselves in, a Mouse Ears pandemic. Now, with the global domination of Mousemania packaged in an extensive array of leaf shapes, sizes, and colors, you may be wondering when the madness will end.

The culprit to blame for the initial contagion is the sport parent, *Hosta* 'Blue Mouse Ears' – a thick, round-leaved miniature that has monopolized popularity polls, sparked the keen interest of spectators in gardens and cut leaf shows alike, and been successfully tissue-cultured, split and divided thousands of times over, since first coming to market. Furthermore, the rampant explosion of the Mouse Ears family sees no end, as new sports are routinely discovered again and again.



Photo by Noah Schwartz. Used by permission.

H. 'Blue Mouse Ears' (E. & J. Deckert – 2000) is to blame for the ongoing mini-hosta craze, dominating the AHS Miniature Hosta Popularity Polls.

AHS eNewsletter 20 April 2023

'Blue Mouse Ears', in case you are the sole gardener yet to encounter it, is a diminutive cultivar with thick, bluish green foliage. A sport of 'Blue Cadet', this darling little hosta solicited the attention of Emile Deckert of Hamstead, MD, who, with his wife Jane, evaluated, named, and eventually registered it in the year 2000. Plant Delights Nursery of Raleigh, NC was the first to add it to their retail offerings in 2002. Admired for its loveable, nearly round leaves and pretty, pale purple, perfectly proportioned flowers, a mature mound tops out at about 8 inches in height by one to two feet in width.

The remarkable influence that 'Blue Mouse Ears' has had on Hostadom cannot be overstated. As Mark Zilis put it, 'Blue Mouse Ears' "initiated the mini-hosta craze that continues to this day." The name fits the plant perfectly, as each small round leaf blade resembles the hearing organ of the mouse, and this has led to an onslaught of additional mice epithets for those who wish to release new rodents into the garden.

In nature, a house mouse (*Mus musculusa*) – the furry little animal that burrows into your warm home for shelter and stolen grub – has a short gestation period of just three weeks. One mouse can give birth to 5-6 pups (mouse babies) per litter, typically with 5 to 10 litters per year. She can mate immediately after giving birth, meaning that mice can produce a second litter in as little as 25 days after the first. If left unchecked, a single mouse (well, actually two mice - a male and female) could lead to as many as 5,082 mice in one year!

Now, back to the hosta — 'Blue Mouse Ears' — which likewise has been so prolific at producing additional mice. The first TC sport was 'Royal Mouse Ears' with blue-green foliage overlaid with streaks of creamy yellow. That was followed by 'Frosted Mouse Ears' and 'Holy Mouse Ears', which subsequently opened the flood-gates to an ocean of other tissue culture sports. The My Hostas Database has a sum of 52 mice sports in all, but check back soon because more seem to be added weekly. Surely, there is one for your own liking.

#### **Multiple Mutations**

Like the ongoing mutation of COVID-19 during the past few years, the mutations produced in the Mouse Ears group are somewhat different than the original itself. A few are larger – 'Jumbo Mouse Ears' and 'Field Rat' for instance, while others are smaller – 'Pure Heart', 'Little Ice Mouse', and 'Niki Mouse'. Some have wavy margins – 'Dancing Mouse' and 'Flamenco Mouse'. There are medio-variegated sports – 'Happy Mouse' and 'Snow Mouse', and there are marginally-variegated alternatives – 'Frosted Mouse Ears' and 'Mighty Mouse'. With such a line-up, it is as though the Mice have been genetically engineered.

When this thick-leaved little hosta was first introduced, most of us assumed 'Blue Mouse Ears' was tetraploid, albeit how would we know otherwise? Flow cytometry testing conducted by Dr. Ben Zonneveld, however, indicated that 'Blue Mouse Ears' was simply diploid. But as tissue-cultured production proceeded, fully tetraploid mutations were eventually discovered, though never introduced.

Further testing by Dr. Zonneveld of the various sports in the 'Blue Mouse Ears' tribe has interestingly revealed that some members are neither fully diploid nor fully tetraploid, but are aneuploids, i.e., they have an uneven number of chromosomes in one or more apical layers. This may explain the wavy edges which are exhibited on some of the Mouse Ears mutations. The important thing is that, regardless of the science that is behind all the mutations, gardeners have quite a diverse and interesting ménage to choose from when forming a Mouse Ears collection.

#### **Making a Mouse House**

All mice species, including house and field mice, are social animals. They thrive in the company of their kind and generally nest together. Did you know that a group of mice is called a mischief? With all their destructive and thieving ways, it is easy to understand the name.



Photo by Kay Anderson. Used by permission.

A Mouse Ears garden is well suited for a trough and makes a delightful addition to the garden. Here, Kay Anderson of West Olive, Michigan, has artfully created a Mouse Ears display for the 2009 AHS National Convention. Included were '**Pure Heart**' and '**Mouse Tracks**', which were not yet introduced by Walters Gardens.

When it comes to the Mouse Ears hostas, most members assimilate well together and can be called upon to form a mouse nest, whether in a garden trough, a raised bed, or even as part of the rock garden. The more vigorous members of the 'Blue Mouse Ears' family are well-suited for edging the garden.

#### A Medley of Mice

With so many members of the recent vermin invasion – indeed, enough to incite a color riot – you may be curious as to which are more distinct from the others. That will involve some research on your part, but here are a few for consideration:



Photo by Walters Gardens. Used by permission.



Photo by Walters Gardens. Used by permission.

#### 'Mini Skirt'

#### 'School Mouse'

'Mini Skirt' is good at showing off, looking chic in front of a line of plain-colored, flat-leaved friends. It's the 'Wheee!' of the Mouse family. The creamy-white margin can be swapped out with the creamy-yellow flare of 'School Mouse', if so desired.



Photo by Hugo Philips. Used by permission.

'Magical Mouse Ears'



Photo by Danny Van Eechaute. Used by permission.

'Mouse Metamorphosis'

**'Magical Mouse Ears'** has a trick up its sleeve. It emerges with creamy-white leaves that slyly turn to soft yellow, and later to blue-green. Another Mouse, **'Mouse Metamorphosis'** is similar, also with creamy white foliage that gradually turns blue green.



Photo by Danny Van Eechaute. Used by permission.

**'Cool Mouse'** has thick, rounded, blue-green leaves like you would expect from any of the mice. Each leaf has a greenish yellow margin, but the cool part is the white flash where the yellow edge meets the blue-green center. It's the 'Striptease' of the Mouse family.



Photo by Gerrie Veenstra, Used by permission.



Photo by Danny Van Eechaute. Used by permission.

#### 'Botters Popeye'

'Mouse Brain'

**'Botters Popeye'** – a mouse with freckles! This sport displays a very speckled, grass-clippings center. The leaf of **'Mouse Brain'**, on the other hand, is very finely misted.



Photo by Danny Van Eechaute, Used by permission. **'Hanjas Crazy Mouse'**...well what can I say? It's just crazy! The speckled, rippled, and twisted foliage is a little insane.



Photo by Danny Van Eechaute. Used by permission.

'Mouse Salad' has long, twisted yellow leaves. Much different than the normal mouse, this one lacks the round, ear-shaped leaves

If these do not spark your interest, there is a surplus of others to choose from. The sports page of My Hostas Database (<a href="https://www.myhostas.be/sports/">https://www.myhostas.be/sports/</a> index.htm) along with the Hosta Library (<a href="www.hostalibrray.org">www.hostalibrray.org</a>) is a great place to muse the various offerings on a Sunday afternoon in preparation for your own mouse nest. With all the variants available, you can begin your very own collection, because it is time to have a fun family of little mice settle in at your house!

<sup>&</sup>lt;sup>1</sup> Mark R. Zilis, Mark Zilis' Field Guide to Hostas (Rochelle, IL: Q & Z Nursery, Inc., 2014), page 71.



## Hybridizer Corner . . .

Don Rawson, Grand Rapids, MI

Welcome to *Hybridizer's Corner*. We are so happy that you are interested in creating new hosta varieties of your very own! The primary purpose of this column is to provide helpful information on setting up a hybridizing program – from establishing goals, collecting and storing pollen, making crosses, harvesting seed, planting and growing seedlings, evaluating, naming and registering a new introduction, and so on. This adventure we are on will be a lot of fun!

The good news for us is that there are hosta hybridizers here and abroad with years of experience, and we will call on many of them to contribute their knowledge to this column. You will certainly benefit from the lessons which they have learned from their own hybridizing program. Feel free to email them any questions you may have along the way.

In this issue, we will begin by pointing out some of the resources that contain information on hybridizing and growing hosta seedlings, ranging from printed publications which are currently available, to Facebook groups and more. These resources will give you a solid foundation for starting a hybridizing program. Avail yourself to them!



#### **Printed Publications**

Mark R. Zilis. *The Hostapedia: An Encyclopedia of Hostas*, pages 11-14. In a few pages, Mark gives a brief history of hybridization through the 1990s, followed by a description of fertilization and seed pod formation.

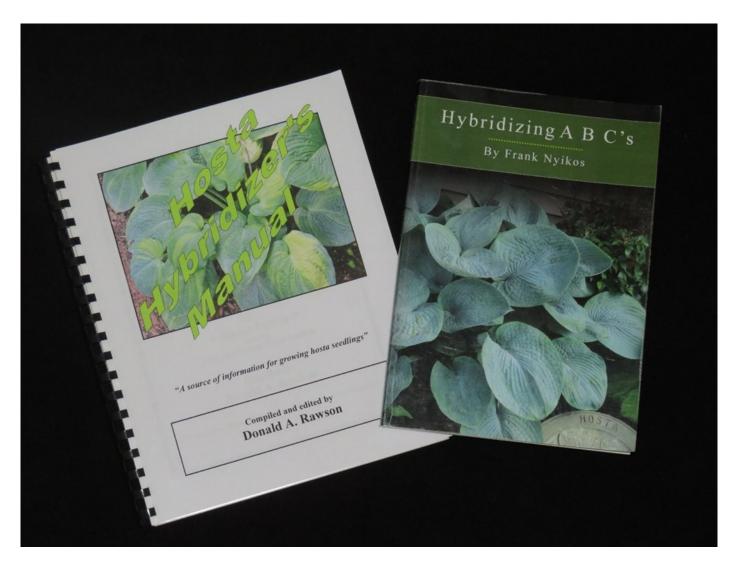
Mark R. Zilis. *Mark Zilis' Field Guide to Hostas*, pages 36-37. Here, in three paragraphs, the author briefly speaks about hybridization.

Diana Grenfell and Mike Shadrack. *The New Encyclopedia of Hostas*, pages 35-36. A brief discussion of how to make a cross, sow the seed, and cull seedlings.

Diana Grenfell. *The Gardener's Guide to Growing Hostas*, pages 50-56. Diana includes a chapter titled, "Breeding Hostas." These pages provide information on preparing the pod parent, gathering pollen, making the cross, labeling and recording, harvesting and storing the seed, planting, and seedling evaluation.

Frank Nyikos. *Hybridizing A B C's*, 151 pages. This paperback takes the reader through the entire process from making the cross and growing the seed to caring for the hostas and naming new introductions. Frank's book focuses specifically on hostas, daylilies, and daffodils. The book can be purchased on Amazon by searching under the author's name.

Donald A. Rawson, compiler and editor. *Hosta Hybridizer's Manual*, 159 pages. This manual is a collection of articles by many authors and experienced hybridizers covering all aspects of hybridizing from the selection of pod and pollen parents to growing seeds and introducing new varieties to market. The manual is filled with "how to" information and illustrated with lots of color photos. In a nutshell, this is the best and most practical guide for the beginning hybridizer. Available from Don Rawson.



#### **Websites**

**Hosta Library**: <a href="http://www.hostalibrary.org/">http://www.hostalibrary.org/</a>.

The Hosta Library has information on understanding genetics, storing pollen, and how to grow hosta seedlings – both indoors and outdoors.



#### **Hosta FAQs: Where do hostas come from?**

Posted by Delaware Valley Hosta Society, <a href="https://www.delvalhosta.org/faqs-part-iii">https://www.delvalhosta.org/faqs-part-iii</a>
At this website is great information which answers the following questions:

Can I grow hostas from seed?

What hostas DO come true from seed?

What will seedlings from other hostas look like?

How do I get variegated seedlings?

What about fragrance?

Do all hostas make seeds?

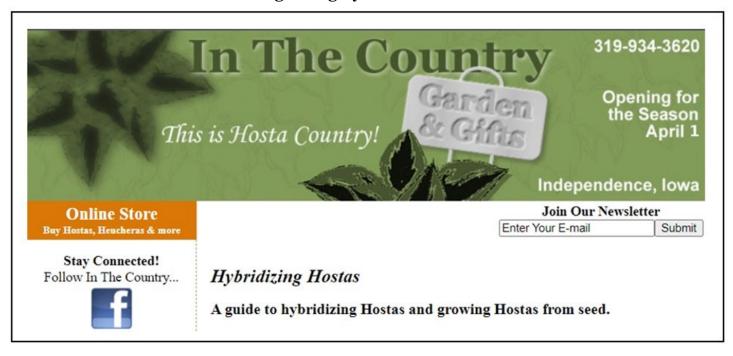
How do I know if my seeds are self-pollinated or cross-pollinated?

# Hybridizing Hostas: A Guide to Hybridizing Hostas and Growing Hostas from Seed

Posted by Josh Spece, In the Country Garden and Gifts

http://www.inthecountrygardenandgifts.com/articles/hybridizing\_hostas.php

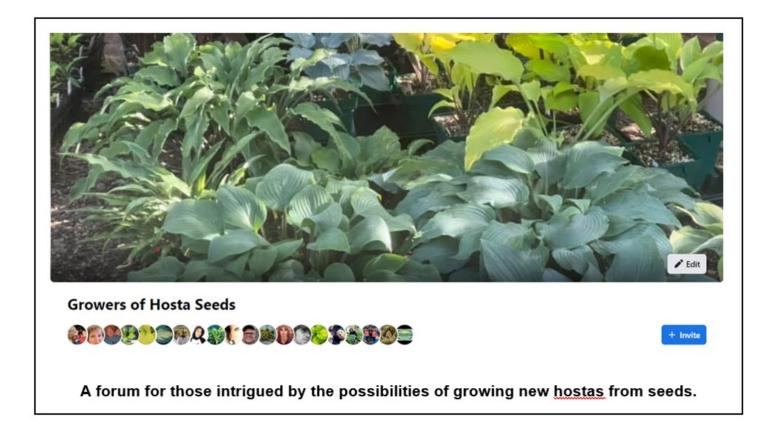
Josh has the best online tutorial on how to hybridize and grow hostas from seed, covering topics like selecting parent plants, genetics, the mechanics of hybridizing, starting seed, problems that are sometimes encountered along the way, and so on. A great source of information for the beginning hybridizer!



#### Facebook Groups

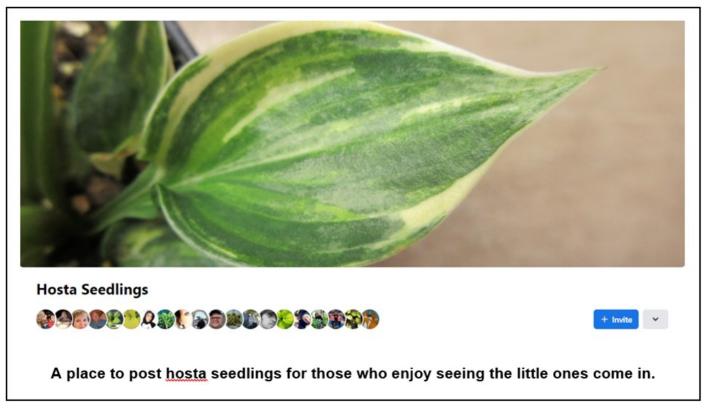
#### **Growers of Hosta Seeds**

The Growers of Hosta Seed Facebook group is a very active and enthusiastic coalition of friends who post daily, often showing exciting photos of their own distinctive seedlings. Participants are happy to help new hybridizers out. The group was originally started over a decade ago by Ross Johnson of Chaska, MN, and was initially called The Hosta Seedgrowers. 3,450 members. Administrators: Dan Wols, Terri Meyer, Carol Brashear.



#### **Hosta Seedlings**

The Hosta Seedlings Facebook group is very active as well, with multiple postings appearing daily. The group was started in 2013 by Jeff Moore of Janesville, WI. Jeff takes great photos of his seedlings and posts them here regularly. 3,189 members. Administrators: Nick Ternes, Jeff Moore



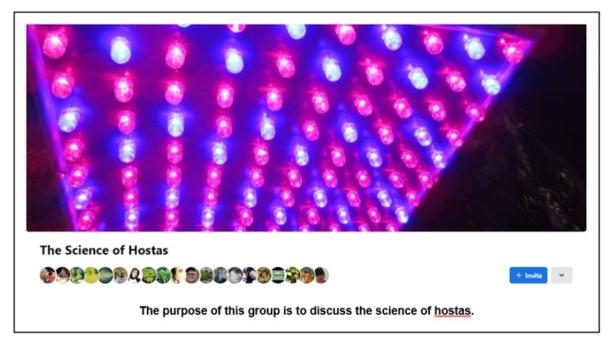
#### **Ed Elslager Hybridizing Group**

The Ed Elslager Facebook Group is the place to go to view photos and information posted by club members. The club has three meetings annually, which are held in Ann Arbor, MI. The Seedling Competition in July each year always has several exciting new hybrids, photos of which are posted on the group's Facebook page. 482 members. Administrators: Karen Whitmer, Rob Seale, Joanna Kovalcsik.



#### The Science of Hostas

While not devoted solely to hybridizing, there is much information at this Facebook page about making crosses, growing seedlings, and about strange and interesting oddities which are sometimes encountered among hybridizers. Also, good information about hybridizing tetraploids. Started by Jeff Moore of Janesville, WI. 1,950 members. Administrator: Nick Ternes.



#### **Youtube**

Three new Youtube videos recently posted by David Teager of Garnet Valley, PA, demonstrate the process of growing hostas from seed. The first video (Part 1) is 8:02 minutes long and covers harvesting hosta seed, drying the seed, removing it from the pods, and detaching the wing from the kernel. David also explains the difference between streaked versus stable hostas.



The Youtube video titled "Hostas from seed Part 1" shows how to plant hostas from seed. This easy to understand presentation is very helpful or anyone interested in hybridizing.

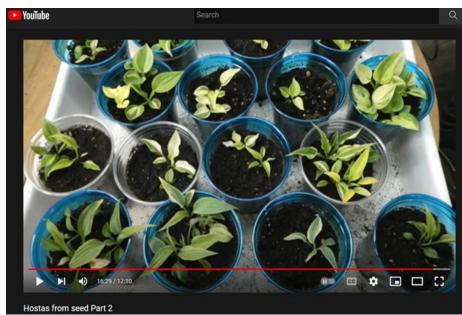
**Hostas from seed Part 1** 

https://www.youtube.com/watch?v=tcL-wqzME5E

Part 2 is 17:10 minutes long and covers seed starting mix, the addition of a fungicide to the mix, the process of planting in 18 oz. cups, and weekby-week growth to the four-month stage. Growing hostas from seed looks

like a lot of fun!

Every cup planted by David germinated. Once the humidity domes were removed, it was exciting to see that many seedlings displayed streaks of white, yellow, and gold!



**Hostas from seed Part 2** 

https://www.youtube.com/watch?v=4LHFFno6N9k

Part 3 is 15:48 minutes in length and covers the process of culling and transplanting hosta seedlings at the 3 to 4-leaf stage. He explains that sometimes seedlings must be grown on to see their mature characteristics.



Hybrids with Hosta plantaginea in the parentage must be grown on to determine how fragrant they are. Other characteristics may not be expressed until a seedling reaches maturity.

Hostas from seed Part 3: Culling and transplanting

https://www.youtube.com/watch?v=wqxwzoNoNgo&t=662s

David Teager is the current President of the Delaware Valley Hosta Society. He has contributed many informative articles to the club's website at <a href="https://www.delvalhosta.org/">https://www.delvalhosta.org/</a>.

#### In the Next Issue...

Setting goals is essential for many of life's tasks, and hybridizing hostas is no exception. If you don't know where you want to end up, how will you know where to begin? Your hybridizing goals do not have to be extremely detailed, but you should have an idea of what you are trying to accomplish. Otherwise, you may just be wasting your time and energy. In the next issue, we will look at the importance of setting goals and how to select appropriate parent plants as first steps in any hybridizing program.



## And In Other Hosta News...

#### **Election Time...**

(From our President)

Elections for officers of the American Hosta Society are held in odd numbered years at the annual convention, so the general membership will be voting for a slate of officers at the convention in Ames, Iowa, in June. Officers are elected to a two-year term and, with three exceptions, are limited to two terms. The Recording Secretary, Treasurer and Membership Secretary may serve as many terms as the membership allows. However, Treasurer Elaine Cole has decided not to seek another term.

President Andy Marlow, Executive Vice-President Tammy Borden, and Vice-President Awards and Honors Janet Hommel Mangas will have served two terms and are ineligible for re-election in 2023. Vice-President Judging and Exhibitions David Bowe has chosen not to run for a second term and interim Vice-President Genus Hosta Don Dean is not seeking a full term.

Consistent with AHS By Laws, President Marlow appointed a Nominating Committee back in January consisting of chair Cindy Tomashek, Harold McDonell and Mike Greanya. The Committee presented the following slate to the AHS Board of Directors and the Board voted unanimously to recommend the slate to the membership.

**President:** Amy Peterson

Executive Vice-President: Mary Schwartzbauer

Immediate Past President: Andy Marlow

Treasurer: Pat Gwidt

Membership Secretary: Barry Ankney

**Recording Secretary:** Marcia Sully

Vice-President Judging and Exhibitions: Kathie Sisson

Vice-President Genus Hosta: Mary Albrecht

Vice-President Member Services: Phyllis Weidman

Vice-President Publications: Bob Saathoff

Vice-President Awards and Honors: Curtis Boyd





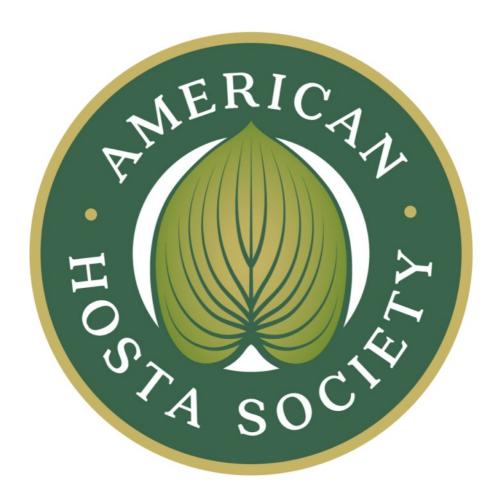




Get Registered!

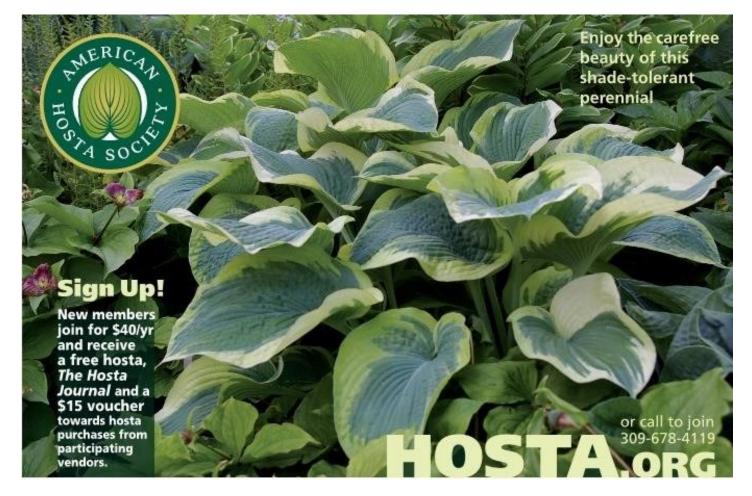
www.hostaconvention.org

# BECOME A MEMBER!



- Receive The Hosta Journal, mailed to you
- Gain access to members-only online materials
- Participate in exciting events and auctions
- Further your love of hostas and gardening

# **HOSTA.org**

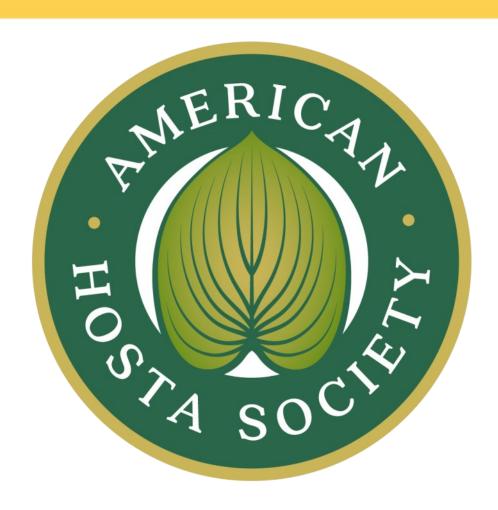


#### BENEFITS OF MEMBERSHIP IN THE AMERICAN HOSTA SOCIETY

- Receive two print issues per year of our popular publication, The Hosta Journal. This 84page publication is filled with color photos and current information regarding hostas.
- Receive a copy of *The Hosta Adventure, Third Edition A Growers Guide* and the *Hosta of the Year* booklet, both filled with color photographs and a wealth of information.
- Receive access to the members-only section of the website to read our *Online Hosta Journal* and access other publications and our member directory.
- Attend national and regional meetings where specialty vendors offer the most recently introduced hostas and companion plants and where a live auction offers rare and distinctive hostas and other garden items.
- Enjoy garden tours open only to AHS members.
- Exhibit your favorite hostas and compete for recognition in various AHS national and regional cut-leaf shows.
- Vote on the most popular hostas with our popularity poll.
- Enjoy the camaraderie of fellow *Hosta* enthusiasts.

### For more information or to join go to hosta.org or call 309-678-4119.



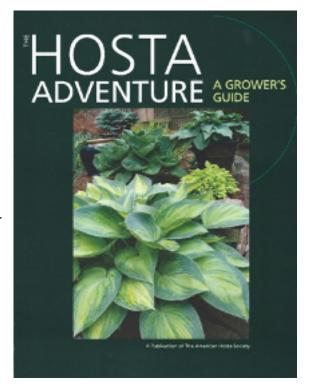


### From AHS Publications

The Hosta Adventure, Third Edition, contains a wealth of information about growing hostas. First published in 2001, The Hosta Adventure was intended as a guide for novices, but it appealed to all levels of hosta gardeners. The first two editions were popular additions to the libraries of new and seasoned gardeners. Now a new Adventure beckons.

This new edition of *The Hosta Adventure* is updated with the latest information including buying, planting, and growing hostas.





There is a chapter on growing hostas in containers. Common problems encountered in hosta culture with solutions to these common problems is included. For those interested in propagation, information on division of plants, bud cutting, and the Ross method is included.

If you are new to hostas, a chapter on hosta favorites gives you an idea of hostas to acquire that are viewed as good plants by other hosta growers. A chapter on new hostas, including sports and seedlings is informative.

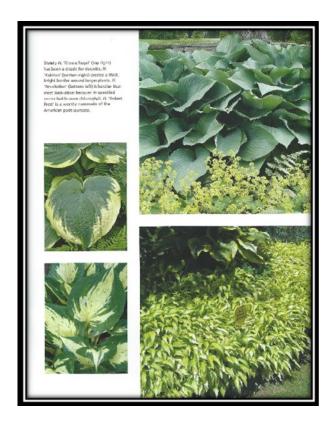
A list of popular hosta books that you may want to add to your library is given, as is information on hosta shows, and information on how to link up with fellow hosta growers by joining The American Hosta Society.

This publication should be part of every hosta grower's library.

Order The Hosta Adventure—A Grower's Guide - 3rd Edition

\$4.00 + \$2.50 postage for members or \$5.50 + \$2.50 postage for non-members





*The Hosta Adventure* is filled with stunning photos of hostas and hosta gardens.

Here is a great way to reward new members of your local club. Give them a copy of this American Hosta Society publication.

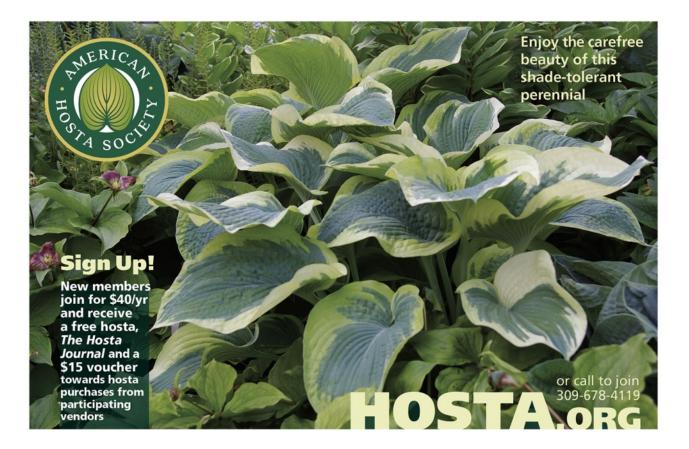
For local societies and nurseries, the best price per copy is in bulk:

2-6 books, \$4.00 each + \$8.00 postage 7-30 books, \$4.00 each + \$15.00 postage 31-99 books, \$3.75 each + \$21.00 postage 100-499 books, \$3.25 each + \$27.00 postage

(All prices postpaid in the U.S.) Orders from foreign countries will pay any additional shipping charges.

Make checks payable to *The American Hosta Society* and send to:

Barry Ankney, AHS Publications Sales Hosta Adventure 1104 Oxford Court Oakbrook Terrace IL 60181



#### ADDITIONAL BENEFITS OF MEMBERSHIP IN THE AMERICAN HOSTA SOCIETY

- Receive two print issues per year of our popular publication, The Hosta Journal. This 84page publication is filled with color photos and current information regarding Hostas.
- Receive a copy of *The Hosta Adventure, Third Edition A Growers Guide* and the *Hosta of the Year* booklet, both filled with color photographs and a wealth of information.
- Receive access to the members-only section of the website to read our Online Hosta
  Journal and access other publications and our member directory.
- Attend national and regional meetings where specialty vendors offer the most recently introduced *Hostas* and companion plants and where a live auction offers rare and distinctive *Hostas* and other garden items.
- Enjoy garden tours open only to AHS members.
- Exhibit your favorite Hostas and compete for recognition in various AHS national and regional cut-leaf shows.
- Vote on the most popular *Hostas* with our popularity poll.
- Enjoy the camaraderie of fellow Hosta enthusiasts.

For more information or to join go to hosta.org or call 309-678-4119.



# Give a gift membership!

Name		
:-mail		
Phone ( )		
Address		
City	State Zip	
Country		

Circle membership choice:

Membership type		1 yr.
USA	Individual Family	\$30 \$34
Canada	Individual Family	\$39 \$43
Europe	Individual Family	\$51 \$55
Pacific Rim	Individual Family	\$59 \$62
E-Membership*		\$20

\*Online digital versions only.

Check or money order in U.S. dollars and drawn on a U.S. bank.

Make check payable to: American Hosta Society.

MAIL THIS Barry R. Ankney

ENTIRE PAGE + AHS Membership Secretary

PAYMENT TO: 1104 Oxford Court

Oakbrook Terrace IL 60181-5249

Questions or to pay by credit card: 309-678-4119

Or pay by credit card online: www.hosta.org



## Support Our Advertisers.





## Visit: www.sebrightgardens.com



To download our catalog & view informative web site, or send \$2.00 for color catalog to: Sebright Gardens PO Box 9058 Brooks, Oregon 97305-0058





## Golden Skep Flower Farm

264 Linden Street, Berlin, MA 978-838-2471 www.goldenskepfarm.com

Home of one of the largest selections of Hosta, Daylilies, Iris and Peonies in Central Massachusetts ~ Thousands of Sun & Shade Perennials ~

Open: May 1 through Columbus Day Hours: Wednesday-Sunday 10-5 July: Open Every Day 10-5

Bring this ad to the farm for \$5 off any one potted perennial

One of the "Five Best Flower Farms in New England" According to Yankee Magazine (March 2019 issue)



H. 'California Gold Rush'
M. Zilis 2010
(Photo by Mary Vertz)



H. 'Brave Attempt' W. Silvers 2007
(Photo by Mary Vertz)





Garden Center, Arboretum, Botanical Gardens

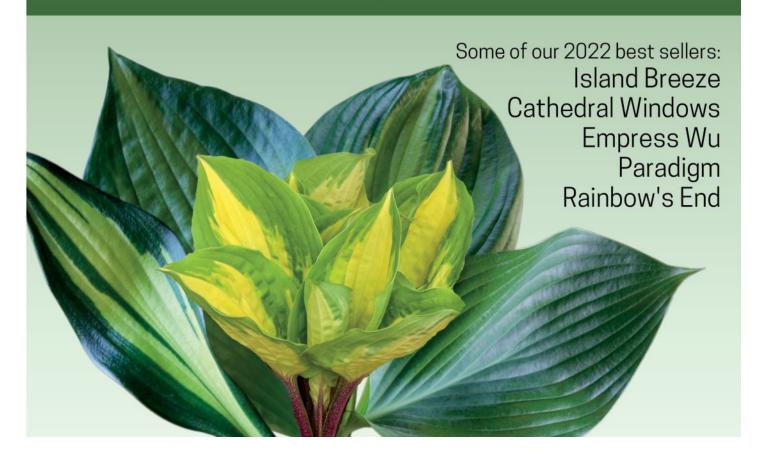
Growing and loving hostas for over 35 years near Princeton, IL.



Bareroot hostas wrapped for shipping.

## WE SHIP HOSTAS ACROSS THE U.S.

Check out our stock of over 400 varieties on hornbakergardens.com



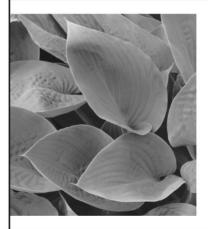
www.aaaqualityengravers.com

Garden Marker Specialist for 23+ Years

- Quickly installed with new or existing systems
- U.V. stable material—life is 10+ years
- Maintains plant identity in an attractive manner
- Fast service—ships in 1-2 weeks



## Garden markers that keep going and going and going and going!



Our labels are black, green, or coffee bean with round or square corners. They work well with SIMPLY ELEGANT, SEE-FINE, KINCAID, other stakes. AAA also labels daylilies, roses, irises, and other plants.

### **AAA QUALITY ENGRAVERS**

P.O. Box 9
Terry, MS 39170
(601)878-5999 Fax: (601)510-9396
E-Mail: daylilyranch@bellsouth.net
www.AAAQualityEngravers.com

SEE GARDENS PHOTO ON WEBSITE

# HOSTAS: MEMORIES OF A HOSTA LOVER



by Master Gardener Elin Endsley Johnson

A beautiful look at an often-overlooked garden beauty. From the large main attractions to the petite miniatures, hostas are often the "little black dress" of gardens and landscape design.

In these pages you'll find a stunning array of varieties highlighted in all their glory-the ones that were her favorites. Hopefully, you might decide to plant your own choices and develop a new appreciation for their quiet elegance and versatility.

\$19.95, Available for purchase at Amazon.com





# NORTHERN GROWN PERENNIALS

Check our website at www.hostalink.com Email: ngp@mwt.net

- \* Providing quality Hostas, Daylilies and Peonies
- \* General listing of Hostas as well as many of our own introductions
- \* All ground-grown stock; no small tc starters
- \* Check our reviews on Garden Watchdog
- \* Wisconsin Zone 4 grown and hardy
- \* Home of 'Glad Rags' and 'Jurassic Park'
- \* Gift plants with orders





# Specializing in custom engraved nameplates, signs, and plant markers.

Our products are computer engraved on UV resistant acrylic plastic designed for long term outdoor use. You may choose between black or green colored labels and square or rounded corners. Other colors are available on request.

Our labels install quickly and easily and can be designed to your specifications for any variety of garden plants.

There will be no need to re-label your garden year after year due to faded and missing signs. This will be your one time botanical quality labeling system.

All orders are processed by your specific plant list and design and will be shipped within 1-2 weeks.

Our standard label size is designed to be used on See-Fine stakes and Simply Elegant stakes. We also make labels for other types of stakes when dimensions are supplied by you.



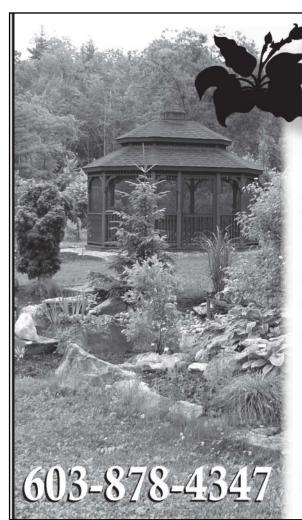
Personalized and friendly service the old-fashioned way.

Please request a free sample package which will include a free label engraved with your information requested along with stake and ordering information.

#### **BY-YOU ENGRAVING**

Tami Boos 2601 Bayou Road St. Bernard, LA 70085 Phone: 504-495-1614 Fax: 504-309-5523 E-mail: Kentami2@att.net

www.By-YouEngraving.com



Mason Hollow Nursery

47 Scripps Lane, Mason NH 03048 www.masonhollow.com

From the novice gardener to the collector, we offer 750 varieties of Hosta, as well as Conifers, Ferns, Ornamental Grasses, Heucheras, Trees and Shrubs and other selected perennials including native plants.

Visitors are welcome to stop by and tour our display gardens.

Bring this ad to the Nursery for \$5 off a purchase over \$20

Hours: Wed through Sat 9-5, Sundays 12-5.



