Hosta

Easy Perennials for Shade AND Sun

Barry Ankney
A little bit about me.

Retired Ph.D. School Psychologist.
I have been growing Hostas for 40 years.
Webmaster for CIHS and MRHS.
President of CIHS.
Vice-President of MRHS.
The Editor of the AHS *Online Hosta Journal*. Executive Committee AHS.
On the Board of Directors of the American Hosta Growers Association.
My sister and I are rehabilitating the AHS National Display Gardens at ICC as our Master Gardener Project.
A Brief History

Hostas are native to Japan, Korea, and China

- Many hostas were brought to Europe in the 1880's
- By the 1920's *Hosta 'Lancifolia', H. plantaginea, and H. ventricosa* were well established in Europe and North America
- American Hosta Society formed in 1968, and hybridizers started to develop new cultivars in the 1970's
- By the early 1980's nurseries had developed plant tissue culture propagation methods, which greatly increased the number of cultivars, and reduced the prices of hostas
Taxonomy

Most experts recognize 38 or 39 species of Hostas.

From these species, the current named cultivars have been derived.

Some controversy remains over several hostas being designated as species or cultivars

(H. sieboldiana and H. lancifolia)
Hosta Characteristics

- Perennial
- Shade Loving or *Shade Tolerant*
- Require minimal care once established
- Provide a multitude of colors
- Great size diversity
- Many different shapes
- Various textures
Basic *Hosta* plant parts

- Roots
- Crown
- Leaves (including the petioles)
- Flower scapes
- Flowers (inflorescence)
- Seed pods
Selecting Hostas

- There are over 8,500 named cultivated varieties (cultivars)
- There are over 5,000 cultivars that are registered with the “International Registrar for the Genus Hosta.”
- With so many cultivars, how do you choose hostas for your garden?
- Most people choose Hostas for their leaves.
Display Gardens

The Illinois Central College Arboretum has a Hosta display garden.

The garden is designated an American Hosta Society Display Garden, one of only three in Illinois; the second is located at the University of Illinois Arboretum, and the third at Cantigny Park in Wheaton. There are 21 display gardens in the United States.

Display gardens give the homeowner an idea of what mature hostas look like.
# The Classic Hostas

<table>
<thead>
<tr>
<th><strong>Abiqua Drinking Gourd</strong></th>
<th><strong>Francee</strong></th>
<th><strong>Krossa Regal</strong></th>
<th><strong>Piedmont Gold</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Allan P. McConnell</strong> *</td>
<td><strong>Frances Williams</strong></td>
<td><strong>lancifolia</strong> *</td>
<td><strong>Praying Hands</strong></td>
</tr>
<tr>
<td><strong>Antioch</strong></td>
<td><strong>Frosted Jade</strong></td>
<td><strong>Little Aurora</strong></td>
<td><strong>Rainforest Sunrise</strong></td>
</tr>
<tr>
<td><strong>August Moon</strong> *</td>
<td><strong>Gold Regal</strong> *</td>
<td><strong>Love Pat</strong></td>
<td><strong>Regal Splendor</strong></td>
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<tr>
<td><strong>Big Daddy</strong></td>
<td><strong>Gold Standard</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Big Mama</strong></td>
<td><strong>Golden Tiara</strong> *</td>
<td><strong>montana 'Aureomarginata'</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **Blue Angel**           | **Great Expectations** | **Moon Glow** | **Royal Standard** *
| **Blue Cadet**           | **Guacamole** * | **Moonlight**    | **Sagae** * |
| **Blue Mouse Ears**      | **Hadspen Blue** | **Neat Splash** | **sieboldiana 'Elegans'** |
| **Bold Ribbons**         | **Halcyon**   | **Niagara Falls** | **Sum and Substance** *
| **First Frost**          | **Honeybells** * | **nigrescens**  | **Sun Power** * |
| **Fortunei Aureomarginata** | **June** * | **Paradigm**     | **Undulata 'Albomarginata'** *
| **Fragrant Bouquet** *   | * **Sun Tolerant** | **Patriot**     | **Zager's White Edge** |
|                         |             |                 | **Zounds** * |
## AHGA Hosta of the Year

The American Hosta Growers Association has selected a "Hosta of the Year" annually, beginning in 1996.

<table>
<thead>
<tr>
<th>Year</th>
<th>Hosta Name</th>
<th>Year</th>
<th>Hosta Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>So Sweet *</td>
<td>2007</td>
<td>Paradigm</td>
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<tr>
<td>1997</td>
<td>Patriot</td>
<td>2008</td>
<td>Blue Mouse Ears</td>
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<tr>
<td>1998</td>
<td>Fragrant Bouquet *</td>
<td>2009</td>
<td>Earth Angel</td>
</tr>
<tr>
<td>1999</td>
<td>Paul's Glory</td>
<td>2010</td>
<td>First Frost</td>
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<tr>
<td>2000</td>
<td>Sagae *</td>
<td>2011</td>
<td>Praying Hands</td>
</tr>
<tr>
<td>2001</td>
<td>June *</td>
<td>2012</td>
<td>Liberty</td>
</tr>
<tr>
<td>2002</td>
<td>Guacamole *</td>
<td>2013</td>
<td>Rainforest Sunrise</td>
</tr>
<tr>
<td>2003</td>
<td>Regal Splendor</td>
<td>2014</td>
<td>Abiqua Drinking Gourd</td>
</tr>
<tr>
<td>2004</td>
<td>Sum and Substance *</td>
<td>2015</td>
<td>Victory</td>
</tr>
<tr>
<td>2005</td>
<td>Striptease</td>
<td>2016</td>
<td>Curly Fries</td>
</tr>
<tr>
<td>2006</td>
<td>Stained Glass *</td>
<td>2017</td>
<td>Brother Stephen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2018</td>
<td>World Cup</td>
</tr>
</tbody>
</table>

* Sun Tolerant
Sun Tolerant Hostas

Generally speaking, the species *Hosta plantaginea* and cultivars derived from it are the most sun tolerant.
Characteristics of *Hosta plantaginea*

Species hosta from China

White Flowers - typically four + inches long

Fragrant Flowers

Medium to thick substance

Glossy leaves

Rapid growers

Love morning sun and more than average amounts of water to bloom
Cultivars derived from *plantaginea*,
all have fragrant white or lavender flowers

<table>
<thead>
<tr>
<th>Aphrodite (sport of <em>plantaginea</em>)</th>
<th>Doubled Up (tetraploid sport of <em>plantagenia</em>)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athena (Sport of Aphrodite)</td>
<td>Honey Pie (September Sun x <em>plantaginea</em>)</td>
</tr>
<tr>
<td>Parthenon (White centered Sport of Athena)</td>
<td>Royal Standard (<em>plantaginea x sieboldiana</em>)</td>
</tr>
<tr>
<td>Poseidon (White edged Sport of Athena)</td>
<td>Hoosier Harmony (Sport of Royal Standard) yg</td>
</tr>
<tr>
<td>Venus (Sport of Aphrodite) Double 18-24 petals</td>
<td>Prairieland Memories (Sport of Royal Standard) g</td>
</tr>
<tr>
<td>Summer Fragrance (Beatrice selfed x plantaginea)</td>
<td>Royal Standard Special (Sport of Royal Standard)</td>
</tr>
<tr>
<td>Fragrant Bouquet (Fascination x Summer Fragrance)</td>
<td></td>
</tr>
<tr>
<td>Guacamole (Sport of Fragrant Bouquet)</td>
<td>Avocado (Sport of Guacamole)</td>
</tr>
<tr>
<td>Fried Bananas (Sport of Guacamole)</td>
<td>Mojito (Sport of Avocado)</td>
</tr>
<tr>
<td>Fried Green Tomatoes (Sport of Guacamole)</td>
<td>Cerveza (Sport of Avocado)</td>
</tr>
<tr>
<td>Holy Mole (Sport of Guacamole)</td>
<td></td>
</tr>
<tr>
<td>So Sweet (‘Fragrant Bouquet’ x ‘Aden 462’)</td>
<td>Stained Glass (Sport of Guacamole)</td>
</tr>
<tr>
<td>Miss Saigon (Sport of Fragrant Bouquet)</td>
<td>Cathedral Windows (Sport of Stained Glass)</td>
</tr>
</tbody>
</table>
Cultivars derived from *plantaginea*, all have fragrant white or lavender flowers (continued)

<table>
<thead>
<tr>
<th>Iron Gate Delight (plantaginea x ‘Tok. Aureo.’)</th>
<th>Flower Power (nigrescens x plantaginea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron Gate Glamour (plantaginea x ‘Tok. Aureo.’)</td>
<td></td>
</tr>
<tr>
<td>Iron Gate Bouquet (plantagenia hybrid)</td>
<td>Fragrant Flame (plantagenia sport)</td>
</tr>
<tr>
<td>Iron Gate Supreme (plantaginea x ‘Tok. Aureo.’)</td>
<td></td>
</tr>
<tr>
<td>Iron Gate Special (Sport of Iron Gate Supreme)</td>
<td></td>
</tr>
<tr>
<td>Austin Dickinson (Resonance x plantagenia)</td>
<td>Warwick Essence (Northern Halo x plantagenia)</td>
</tr>
<tr>
<td>Seventh Heaven (Kevin Vaughn x plantagenia)</td>
<td>Honeybells (<em>plantagenia x sieboldii</em>)</td>
</tr>
<tr>
<td></td>
<td>Sugar and Cream (Sport of Honeybells)</td>
</tr>
<tr>
<td></td>
<td>Sweet Standard (Sport of Honeybells)</td>
</tr>
</tbody>
</table>
## Other sun tolerant Hostas

<table>
<thead>
<tr>
<th>Name</th>
<th>Parentage/Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invincible (Aden – unknown parentage)</td>
<td></td>
</tr>
<tr>
<td>Irish Luck (Invincible x unknown)</td>
<td>Alex Summers (Sport of Gold Regal)</td>
</tr>
<tr>
<td>Sun Power (Aden (Shaw) parentage unknown)</td>
<td>Allan P. McConnell (nakaiana seedling)</td>
</tr>
<tr>
<td>Sun Glow (Innisglow) (seedling of Aspen Gold)</td>
<td>August Moon (sieboldiana hybrid)</td>
</tr>
<tr>
<td>Inniswood (Sort of Sun Glow)</td>
<td>Feather Boa (seedling of sieboldii ‘Subcrocea’)</td>
</tr>
<tr>
<td>Gold Edger (Aden (Shaw) Blue cadet selfed)</td>
<td>Ginko Craig (assumed to be a sport of <em>sieboldii</em>)</td>
</tr>
<tr>
<td>June (Sport of Halcyon)</td>
<td>Mango Salsa (H. clausa normalis F2 seedling X ’Strawberry Banana Smoothie’)</td>
</tr>
<tr>
<td>Orange Marmalade (Sport of Paul’s Glory)</td>
<td>Parhelion (Sport of Sum and Substance)</td>
</tr>
<tr>
<td>Sagae (fluctuans sport)</td>
<td>Whirlwind (believed to be sport of ‘Fortunei Hyancinthina’)</td>
</tr>
<tr>
<td>Zounds (Golden Waffles x Golden Prayers)</td>
<td></td>
</tr>
</tbody>
</table>
White Oak Nursery has been conducting an experiment on growing hostas in full sun for the last two years.

These beds get full sun from 8:30 A.M. to 3:30 P.M.
These are the Hostas we are growing in full sun.

<table>
<thead>
<tr>
<th>Alex Summers  *</th>
<th>Lancifolia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allan P. McConnell *</td>
<td>Pearl Lake</td>
</tr>
<tr>
<td>August Moon *</td>
<td>Pineapple Upsidedown Cake</td>
</tr>
<tr>
<td>Birchwood Parky’s Gold</td>
<td>Plantaginea *</td>
</tr>
<tr>
<td>Blonde Elf</td>
<td>Prairieland Memories *</td>
</tr>
<tr>
<td>Feather Boa *</td>
<td>Royal Standard *</td>
</tr>
<tr>
<td>Fragrant Bouquet *</td>
<td>Sagae *</td>
</tr>
<tr>
<td>Fried Bananas *</td>
<td>So Sweet *</td>
</tr>
<tr>
<td>Fried Green Tomatoes *</td>
<td>Sugar and Cream *</td>
</tr>
<tr>
<td>Gold Edger *</td>
<td>Sum and Substance</td>
</tr>
<tr>
<td>Gold Regal</td>
<td>Summer Fragrance *</td>
</tr>
<tr>
<td>Golden Anniversary</td>
<td>Sun Power *</td>
</tr>
<tr>
<td>Golden Tiara</td>
<td>Undulata Albomarginata</td>
</tr>
<tr>
<td>Guacamole *</td>
<td>Vanilla Cream</td>
</tr>
<tr>
<td>Inniswood *</td>
<td>Whirlwind *</td>
</tr>
<tr>
<td>Invincible *</td>
<td>Zounds *</td>
</tr>
</tbody>
</table>

* Previously shown
Planting *Hostas*

- Most *Hosta* cultivars can be planted from early spring to late fall.
- Small and mini *Hostas* are best planted in the spring to allow adequate time for root development to avoid winter “heaving”.
- *Hostas* like fertile, well drained soil.
- Most *Hosta* cultivars prefer dappled shade, with some morning sun. Avoid afternoon sun.
Preparing the soil

- Once established, *Hostas* will thrive with little fertilization and poor soil conditions, as long as they get adequate water.
- Avoid areas where water puddles, as the water will cause crown rot.
- To establish the plants, it is recommended that unless the soil is already high in organic matter, that the soil be amended.
Soil amendments

- Mushroom compost is a popular addition, especially to clay soils.
- The addition of course sand will aide in good drainage.
- My preferred amendment is a mixture of 50% construction sand and 50% mushroom compost added to the soil when planting.
Depth of planting - watering

The crown should be planted no more than one inch below the surface.

Hostas love water – one inch per week will make them thrive.

Watering is especially important the first year, to insure adequate root development.

After the first year, Hostas will survive with less than an inch of water per week, but will thrive with more water, especially if exposed to more sun.
Care of your *Hosta*

*Hostas* are relatively care free.

- Monitor for water needs
- Monitor for plant pests (more later)
- Monitor for diseases (more later)
- Little fertilization is required

  a balanced (10-10-10) fertilizer in early spring is adequate if you desire
Care - mulching

Mulching will help retain moisture.
Mulching can also provide a habitat for pests.
Keep mulch several inches away from the petioles to help avoid slug damage.
Too thick of a mulch covering can provide cover for voles, a serious threat to Hosta crowns in the winter.

**Hosta propagation**

*Hostas* are easily propagated by the homeowner by division.

*Hostas* can also be grown from seed – but the offspring will not, with rare exceptions, be the same as the mother plant.

Commercially, the most common method of propagation is by tissue culture.
Propagation by division

- Hostas can be divided anytime during the growing season, but as previously recommended, smaller hostas need to be planted early enough to insure adequate root growth prior to winter.
- Division is relatively easy, it just takes a sharp sterilized knife.
- There is an information video at: http://www.nhhostas.com/dividing-hostas.htm
How to divide *Hostas*

Mature clumps can be divided by using a spade (a flat landscaping spade seems to work best). Simply separate the foliage, and tie back out of the way, if needed) then cut straight down through the crown and roots to separate the desired portion of the clump.

Next, take a garden fork to dig from the exterior in toward the cuts made by your spade to lift out the division.

Refill the hole left by removing the division with the mushroom compost and sand mixture.
Alternate division method

If you want to divide the mature clump into multiple smaller clumps, the following may be easier:

- Dig out the entire clump (a landscaping fork is my preferred tool).
- Remove as much soil from the root ball as you can.
- Use a sharp sterilized knife to cut the clump into the desired number of smaller clumps, cutting cleanly through the crown, and preserving as many roots per division as possible.
Propagating by seed

- Only a handful of *Hostas* produce seedlings that are true to form – most will have been open pollinated (by bees and hummingbirds), and produce offspring that have some characteristics of the pod parent.

- Many *Hostas* form seed pods after flowering and pollination (some are sterile)

- You can collect the seed pods once the pods have turned brown, and collect the small (usually dark brown) seeds from the pods

- Seeds will often germinate in two to three weeks
What to expect from your seedlings

- Honestly, most will be “Plain Jane” green seedlings that have little interest.
- If the pod parent is a streaked plant, the offspring may be variegated.
- Any interesting seedlings will need to be grown for at least three years to determine if they have potential – mature plants do not necessarily look like their one year old self.
- If you like to tinker with plants, you may discover a very unique, marketable *Hosta*. Many new cultivars have come from open pollinated seedlings.
Controlled Pollination – the next step

- If you are not satisfied with the work done by nature's pollinators, you can do direct cross pollination to create a controlled cross.

- If you are interested in pursuing this hobby, there is a wealth of information at: http://www.hostaseedgrowers.com/Growing_hosta_seed.html
Common Pests

- Slugs and snails – chew holes in foliage
- Nematodes – interveinal browning in late summer
- Voles and moles – most damage likely over the winter
- Deer – graze on foliage, with most damage occurring in early spring
Slug and Snail Control

- Prevention – do not place mulch close to the plants
- Removal – place a damp board on the ground overnight, turn over and remove slugs in the morning
- Home remedy – stale beer in a shallow container
- Eradication – Slug Baits are available
Nematode Damage

Nematode damage on *H. Diamond Tiara*
Not Nematode Damage

This is likely desiccation damage due to sun exposure and too little water
There is a new organic product that has proven effective in eliminating Nematodes. The product is called NemaKill, Organic Nematicide. It is a mixture of Cinnamon Oil, Clove Oil, and Thyme Oil.

It has been shown to be 100% effective in killing Nematodes when used properly. It is recommended that the plant and the surrounding soil be sprayed thoroughly three times at ten day intervals. The life span of the Nematode is approximately 10 days, so this eliminates any adult Nematodes that had not yet hatched during the first and subsequent treatments.
Moles and Voles
Moles and Voles

Moles may tunnel through the *Hosta* plant roots in search of grubs. They do not directly damage the plant's roots, but may disturb the roots sufficiently to cause secondary damage due to their activity.

Voles, on the other hand, do direct damage to the *Hosta* crown, usually over the winter. Voles, (think of them like short-tailed or tail-less mice), burrow down to the crown of the *Hosta*, and chew on the crown, often from the underside, damaging the connections between the crown and the roots. Often, the crown is completely consumed, leaving only roots in the soil.
Vole control

Avoidance –

- Do not mulch heavily near the crown and where the leaves emerge from the ground.
- Clean away foliage in the fall, to limit cover for voles.

Deterrence –

- a new experimental organic repellant has been tested with very promising success. Castor oil, applied in late fall has effectively eliminated vole damage in *Hostas*.
- Some gardeners plant their *Hostas* in wire mesh to limit vole damage
Treating with castor oil in the fall

For an informative video of this treatment method, visit:

http://www.nhhostas.com/organic-vole-control.htm

The Recipe For Organic Vole & Mouse Control

Large Area Applications Using A Hose-End Sprayer
1 - 2 Oz Castor Oil (DO NOT USE UNSCENTED CASTOR OIL!)
1 - 2 Oz Dish Detergent
Add the mixture to the jar of the hose end sprayer. Then fill the jar with water. Attach to your hose and thoroughly water every location that you want to deter the pests from. If your hose-end sprayer has a dial, set it to the highest setting. You want the castor oil to soak down into the ground, so thoroughly soak the soil.

Castor Oil is available from http://www.shayandcompany.com/castor-oil-1-gallon.html (Some nurseries sell in smaller quantities.)
White Tailed Deer
Deer Deterrents – home remedies

- Bar Soap
- Liquid Repellants
  - Deer Off
  - Liquid Fence
- Your pet dog
- Crystallized Coyote urine
Diseases of *Hostas*

The most concerning disease of *Hosta* is Hosta virus x.

- There is no cure – destroy infected plant material, remove soil, and do not replant *Hostas* in that space.
- Testing can readily be done using test strips from AGDIA, Elkheart, Indiana. (cost is about $5.00 per test strip)
Symptoms of *Hosta* virus x

- Varies by cultivar, but dark green areas bleeding into interveinal areas in variegated cultivars is typical; in green or blue-green cultivars, areas of desiccation and gnarling may develop along the margin or near leaf tip

Symptoms of *Hosta* virus
Companion Plants

- Hardy Ferns
- Heuchera (coral bells)
- Tiarellas (foam flower)
- Heucherellas (foamy bells)
- Pulmonaria (lung wort)
- Carex (sedge)
- Lycoris squamigera (Resurrection lily)
- Hellebore (Lenten Rose)
Hardy Ferns

Japanese Painted Fern

Male Fern
Heuchera

*Heuchera 'Carnival Coffee Bean'*

*Heuchera 'Plum Pudding'*
Tiarella

*Tiarella 'Mystic Mist'*

*Tiarella 'Pink Skyrocket'*
Heucherellas

*Heucherella* 'Golden Zebra'  
*Heucherella* 'Buttered Rum'
Pulmonaria

*Pulmonaria 'Mrs. Moon'*

*Pulmonaria 'Raspberry Splash'*
Carex

*Carex* 'Ice Dance'

*Carex* 'Evergold'
Lycoris (Resurrection Lily)

*Lycoris squamigera*  
*Lycoris radiata*
Helleborus

Helleborus 'Pink Ruffles'

Helleborus 'Sunshine Ruffles'
Hosta Organizations

Local – Central Illinois Hosta Society (CIHS)
www.cihshostaclub.org

Illinois Prairie Hosta Society (IPHS)
www.illinoisprairiehostasociety.com

Regional – Midwest Regional Hosta Society
www.midwesthostasociety.org

National – American Hosta Society
www.americanhostasociety.org