# Introduction

Welcome to the Old Stone House & Washington Park. This archival guide illustrates the plants found in the six gardens surrounding the House. These gardens, designed and planted from beginning in 2004 using permaculture principles by OSH's founding gardener Claudia Joseph, are maintained and managed by Samuel Lewis and Angel Martinez Lombardo, as well as a devoted group of garden volunteers that meet Tuesday and Thursday mornings from April through October.

This guide is for educational purposes. Please be advised that a number of these plants can be harmful if not used appropriately. Consult an herbalist or health professional for guidance whenever using plant medicine.

Picking or harvesting the plants is discouraged. If you would like to interact with the plants, have any questions or comments, or if you would like to get involved, feel free to contact <u>alombardo@theldstonehouse.org</u>. We hope you enjoy learning more about the OSH gardens!

#### History

The Old Stone House is a reconstruction of the 1699 Vechte-Cortelyou House on land taken from the Lenape as early as 1639. It was the culminating site of the first and largest official battle of the American Revolution in August 1776.

The contemporary gardens at OSH draw on the long history of agriculture on the site. This land was once adjacent to the Lenape town of Marechkawick on the banks of the Gowanus Creek. Hundreds of people lived at Marechkawick. They grew corn and other crops in the rich soil surrounding the Gowanus.

European settlers began purchasing land near the Gowanus from the leaders of Marechkawick and other Lenape towns in 1636. When Dutch West India Company Director Wilhelm Kieft ordered attacks on unarmed Indigenous visitors at Pavonia and Corlears Hook in February 1643, Marechkawick and other Lenape settlements forced the Europeans back onto Manhattan. Two and half years later, in August 1645, European troops retook the area. With "Kieft's War" over, these settlers founded Breukelen in March 1646 on top of Marechkawick.

The Vechte family came to New Amsterdam from the Netherlands in 1660. Hendrick Claessen Vechte commissioned the Old Stone House in 1699 on lands his father purchased along the Gowanus decades earlier. Hendrick was a wealthy man and served as Justice of the Peace for Brooklyn. His son Nicholas Vechte was born at the Old Stone House in 1704, living at the farm until his death during the Revolutionary War.

Like many of their neighbors, the Vechtes enslaved generations of people of African descent. These enslaved people did most of the work on the Vechte farm. They raised grains, fruits, vegetables, oysters, and cattle for sale. They did most of the cooking and cleaning and kept the hearth fires going through long cold nights. When the Continental Congress declared independence from Great Britain in 1776, there were more enslaved people living at the Old Stone House than free people.

After the Revolutionary War, the Vechtes sold the farm to the Cortelyou family. The Cortelyous then sold it to Park Slope developer Edwin Litchfield in 1852.

– Dylan Yeats, Ph.D.

We went upon several plantations [in Gowanus] where...the people...made us very welcome, sharing with us bountifully whatever they had.... It is impossible to tell how many peach trees we passed, all laden with fruit.... We found Gouanes oysters, which are the best in the country.... They are large and full, some of them not less than a foot long....

> From the September 1679 entries of the Journal of Jasper Danckaerts

#### Key to the Guide

#### Common name

Latin: Genus species Plant Family AKA, alternative common names Native status Season of bloom/fruiting Where to find in OSH Gardens <u>Old Stone House & Washington Park Plant Guide</u>

The Old Stone House gardens contain more than 120 different species of perennial plants, not including annual additions to the farm garden. Of those:

94 different species are native (76%)
90 different species have medicinal value and/or are edible (75%)
90 different species are beneficial to local pollinators and sustain local wildlife (75%)
46 different species can be used to make natural dye (38%)

#### 1. Anise Hyssop

Agastache foeniculum Laminaceae hyssop, blue giant hyssop Native Summer bloom Gardens: Farm, Dooryard



- Anise hyssop is considered one of the premier plants for feeding pollinators. One acre planted in anise hyssop can support 100 honeybee hives, the flowers blooming for a very long season, often from June until frost and during the time it blooms, one can see bees on the flowers from the morning until dusk.
- The aromatic leaves have a licorice-like (anise) scent and are used as a breath freshener in herbal teas, to flavor jellies or eaten fresh in small quantities, such as in a salad with other greens.
- The best time to harvest the plant is just after the flower is at full bloom. The seeds need light to germinate.
- Medicinally, it's used to relieve congestion, acting as an expectorant (clearing mucus from lungs and airways) and is great for colds and fevers. It's also commonly used to relieve stress and regulate the nervous system.
- In a 2020 study published by the National Institute of Health, agastache foeniculum was shown to increase lifespan, stress resistance, and metabolism by affecting free radical processes in drosophila, fruit flies. (https://pmc.ncbi.nlm.nih.gov/articles/PMC7772399/)

# 2. Asters

At the OSH we have several different native species of aster through all gardens including:

Blue wood Aster	Heath Aster	New England Aster	New York
<u>Aster</u>			
Symphonia cordifolium novi-belgii	Symphyotrichum ericoide	e Aster novae-angliae	Aster









#### GENERAL NOTES ON ASTERS:

- The name is derived from the Latin astrum meaning star, reflecting the shape of the flowers.
- Great pollinator plant that blooms in late summer/ early fall. Used as a medicinal herb and dye plant .
- Flowers and leaves are edible.
- Reproduce both sexually via seeds and asexually via rhizomes.
- Depending on the species flowers can have a slightly sedative effect.
- Diaphoretic (induces sweating) tea of flowers is used for colds and allergies and asthma.
- Decongesting, antispasmodic and relaxing to lungs and digestion.
- The roots were crushed and fed to bees in poor health.

- Asters spread from the ground where King Aegeus died (legend of Theseus).
- The aster was even important enough to merit its own origin story within the Greek pantheon. Although the details vary, the aster was said to have been created by the tears of the goddess Astraea, who wept when she realized how few stars there were in the sky. In one version, Astraea wept after Jupiter flooded the world of man leaving only two faithful mortals to rebuild amid the desolation. Her tears formed asters that turned the bleak landscape into a panoply of color and beauty, a touch of the divine to remind us of nature's inherent splendor and capacity for renewal. (astersociety.com).
- But the aster's beauty transcends time and culture, and many other myths arose to explain the supernatural beauty of these enchanting wildflowers. Another myth from the Cherokee tells of two sisters, fleeing from a pair of warring tribes, who sought the help of an Herb Woman blessed by the gods with the power to brew powerful potions. After looking into the future and seeing no escape for the two young women, the wise Herb Woman used her power to turn them into flowers, goldenrod and aster and thus the aster was born.

\*\*\* Recommended reading: Braiding Sweetgrass by Dr. Robin Wall Kimmerer- Chapter 5, explaining the science behind why Asters and Goldenrod look so beautiful together, and exploring the complementary nature with which spirituality, indigenous knowledge and science can be cooperative in a more holistic model of research.

#### <u>Lore</u>

# 3. Basket willow

Salix viminalis Salicaceae Eurasian willow, common osier Non- Native ( Europe, Western Asia and Himalayas) Gardens: South Dutch, North Dutch, Farm Archway

 Willow (Salix) branches are rich in the hormones indolebutyric acid (IBA), which stimulates rooting, and salicin, a compound extremely similar to acetyl salicylic acid or aspirin, which protects the cutting from fungi and bacterial infections. Make willow branch tea as a DIY rooting hormone for propagating cuttings.



- The bark, twigs, leaves, leaf buds, and flower buds of all Salix species contain salicin.
- Used often in environmental protection to stabilize erosion in riverbanks. Can be used for basket making and to make live stakes or a living fence.
- Willows are phenomenal bioaccumulators, tending to remediate soil from pollutants such as cadmium, chromium, lead, mercury and petroleum hydrocarbons (gasoline/ crude oil).
- The bark is used commonly to bring down inflammation or fever and reduce pain. (https://www.mountsinai.org/health-library/herb/willow-bark)

# 4. Bayberry

Myrica pensylvanica, Myricaceae northern bayberry, candleberry Native Fruit in late summer early fall, persist through winter Gardens: South Dutch, Farm



• Leaves are dotted with resin and aromatic when crushed. The fruits are covered with a waxy substance which is used to make bayberry candles, soaps and sealing wax.

- The roots have nitrogen-fixing bacteria which enable the plants to grow on soils that are very poor in nitrogen content.
- The leaves can add flavor to soups and broths. They can be dried and stored in jars to be used as a spice like bay leaf.
- The wax coating on the fruit is indigestible for most birds, but a few species have adapted to be able to eat it, notably the yellow-rumped warbler and tree swallow in North America, allowing it to winter farther north.

# 5. <u>Beach Rose</u>

Rosa rugosa Rosaceae beach tomato, sea tomato Non-Native (Eastern Asia) Early summer bloom, late summer fruit Gardens: South Dutch



- Rugosa means wrinkled in reference to the wrinkled leaves.
- This rose species was introduced to America from Japan in the mid-19th century; it was valued because it can tolerate saltwater spray.
- The sweetly scented flowers are traditionally used to make flower jam and dessert in China.
- The fruit aka rose hips are edible and can be used to make jams, syrups, tea, or eaten raw.
- Rose hips are extremely high in vitamin C.
- Widely used to treat stomach aches, diarrhea, pain, and chronic inflammatory disease in eastern Asia.

#### 6. Beach Plum

Prunus maritima Rosaceae Native Late spring flowers late summer fruit Gardens: Dooryard, Pollinator



- Naturally occurring in sand dunes, this shrub is extremely drought and salt tolerant in addition to being cold hearty.
- Used for dune restoration, it spreads via root sprouts.
- The fruit is wonderful and sweet, though small with a big pit.
- Great for jams.

# 7. <u>Bee Balm</u>

Monarda fistulosa Lamiaceae (Mint) wild bergamot Native Midsummer flower Gardens: South Dutch



- Great pollinator plant attracts hummingbirds and butterflies.
- Everything but the roots are edible and have pleasant spicy oregano flavor.
- Has many uses most commonly to treat colds and is frequently made into tea. Today many still use wild bergamot during the cold and flu season. The tea may be sweetened with honey, as it tends to be quite strong.
- It is a source of antiseptic thymol, the primary active ingredient in modern commercial mouthwash formulas also used in animal repellents, fungicides, medical disinfectants, and virucides. (US EPA,

https://archive.epa.gov/pesticides/reregistration/web/pdf/thymol.pdf)

• It's also a diaphoretic (sweat inducer) which makes it helpful in breaking fevers/colds.

# 8. <u>Highbush Blueberry</u>

Vaccinium corymbosum Ericaceae ( Azalea) Native Early summer fruit Gardens: Dooryard



- Like cranberries, blueberries prevent bacteria from attaching to the wall of the bladder due to hippuric acid. This makes them useful for fighting off bladder infections.
- They are high in fiber and have more antioxidant content than most fruits.
- astringency aids in stopping diarrhea and difficult digestion.
- Blueberry leaf tea has many of the same health benefits as blueberries, for reducing inflammation and, circulation, containing vitamin C and K, manganese and potassium.(<u>https://pmc.ncbi.nlm.nih.gov/articles/PMC7569947/</u>)

# 9. Black Cohosh

Actaea racemosa Ranunculaceae (Buttercup) black bugbane, snakeroot, rattleweed Native Summer flower Gardens: Dooryard



- Roots and rhizomes (underground stems) are used in traditional indigenous medicine for musculoskeletal pain, fever, cough, pneumonia, sluggish labor, and menstrual irregularities.
- It's commonly used in modern herbal medicine for symptoms of menopause and issues relating to menstruation. (<u>https://ods.od.nih.gov/factsheets/BlackCohosh-</u> <u>HealthProfessional/</u>)
- This is a potent medicine and used wrongly can result in liver damage, only use with the care and consultation of a professional.

#### 10. <u>Black Gum</u>

Nyssa sylvatica Nyssaceae black tupelo, tupelo Gardens: Farm

 The species' common name, tupelo, is of Native American origin, coming from the Creek words ito/"tree" and opilwa/"swamp"; it was in use by the mid-18th century.



- Its flowers are an important source of nectar, and its fruits are important to many birds and mammals.
- It is the longest living non-clonal flowering plant in Eastern North America, capable of obtaining ages of over 650 years.
- Nyssa sylvatica is a major source of wild honey in many areas within its range. Hollow sections of black gum trunks were formerly used as bee gums (beehives).
- The wood of the black gum/black tupelo is very resistant to splitting which makes it great to use for making mauls, pulleys, wheel hubs, agricultural rollers, bowls, and paving blocks. It is considered a premier wood for making railroad ties and factory flooring.

#### 11. Boneset

Eupatorium perfoliatum Asteraceae feverwort, sweating plant Native Gardens: Pollinator, Farm, Perimeter

- Great pollinator plant.
- The plant is a diaphoretic, or an agent to cause sweating. In traditional medicine, the plant is used for breaking fevers and treating colds by means of heavy



sweating. It is strong however and can be harmful to the liver in large doses or over prolonged time.

• The name "boneset" comes from the use of the plant to treat dengue fever, which is also called "break-bone fever.

#### 12. <u>Boston Ivy</u>

Parthenocissus tricuspidata Vitaceae (grape) grape ivy, Japanese ivy Not Native (eastern Asia) Gardens: Dooryard

- Unrelated to true ivy, this fast-growing climbing plant that uses suckers to adhere to walls.
- In its native range, the vine has traditional medicinal uses (China, Korea) and spring sap used as a culinary sweetener (Japan).

# 13. <u>Canna Lily</u>

Cannaceae Not native ( tropics) Summer bloom Gardens: Dooryard

• Not true lilies, but closer related to ginger, arrowroot, banana.



- Has been cultivated by Native Americans in tropical Americas for thousands of years and was one of the earliest domesticated plants in the Americas.
- A purple dye is obtained from the seed.

- A fiber obtained from the leaves is used for making paper and the stem to make a jute substitute.
- Rhizomes are a starchy food source.
- Many important uses culturally for communities in tropical climates.
- Canna lily dye is used in dye-sensitized solar cells (DSSCs) and for dyeing cotton fabrics.

#### 14. Caper spurge

Euphorbia lathyris Euphorbiaceae Non-Native (Southern Europe, Northern Africa) Spring flower late summer fruit Gardens: Farm, Dooryard



 All parts of the plant, including the seeds and roots, are poisonous. Handling may cause skin irritation as

the plant produces latex. It's used medicinally but is very potent and dangerous.

• purportedly was used by beggars to induce skin boils.

# 15. Carolina All-spice

Calycanthus floridus Calycanthaceae (family of Laurel order) eastern sweetshrub Native Gardens: Pollinator

- Showy fragrant flowers are good for pollinators, beatles specifically
- The bark of this plant is edible and a comparable substitute for cinnamon, the twigs can also be dried and ground.



- The petals can be used to make a tea, however extreme caution should be used; it contains an alkaloid that has a strong depressive action on the heart.
- High resistant to disease and insects.
- Can be used as disinfectant or perfume because of trace amounts of camphor.

# 16. <u>Catnip</u>

Nepeta cataria Lamiaceae (mint) catmint Non-Native but naturalized Summer bloom Gardens: Farm



- Can be repellent in certain insects, including mosquitos, aphids and squash beetles.
- Drought tolerant.
- Slight sedative as a tea. Can aid with digestive upset.
   (<u>https://pmc.ncbi.nlm.nih.gov/articles/PMC1480656</u>) Slightly diuretic can induce sweating and break a fever.
- Edible, young leaves can be eaten raw, older leaves should be cooked.
- Infusion can be used externally for bruising.(<u>https://pfaf.org/user/Plant.aspx?LatinName=Nepeta+Cataria</u>)

### 17. Celandine

Chelidonium majus Papaveracea (poppy) Greater celandine Non- native (Europe and Western Asia) Gardens: Farm, South Dutch

• The whole plant is toxic in moderate doses as it contains a range of isoquinoline alkaloids; use in herbal medicine requires the correct dose.



- It is a traditional topical folk remedy against warts in Europe. Aerial parts and roots of greater celandine are used in herbalism.
- Internal use is strongly discouraged, Celandine has been linked to several instances of clinically apparent liver injury.
- Can be used to make a yellow dye.

#### 18. Chokeberry.

Aronia spp. Rosaceae aronia Native Flower late spring, fruit late summer fall Gardens: South Dutch, Pollinator

 From September – November fruit is eaten by songbirds. Sour berries are edible right off the bush but are slightly bitter/astringent.



- They're considered the richest sources of plant antioxidants. High in vitamin C,K,A, E, folate, anthocyanins and Iron (<u>https://pubs.acs.org/doi/10.1021/acs.jafc.7b02136</u>)
- You can wait after a late freeze; they sweeten after a freeze like persimmons. more commonly used to make jam, wine syrup, juice tea, salsa beer, etc. Tangy when dried.

• Dye plant, soft purple

# 19. <u>Comfrey</u>

Symphytum officinale Boraginaceae (borage, forget-me-not) Knitbone, common comfrey Non-Native (Europe) Spring/ early summer bloom Gardens: Farm, South Dutch, Dooryard

 Over centuries, comfrey was cultivated in Asia, Europe, and the United Kingdom as a vegetable and herbal medicine.



- Roots and leaves can be used for dye, deep slate grey/ green with iron and cream/ golden alone.
- Comfrey produces the chemical 'allantoin' known to stimulate cell production.
- Its early common names, knitbone or boneset, reflect its historical use by poultices of leaves and roots to treat sprains, bruises or bone fractures. Also, the roots could be mashed then packed around a broken limb, when dried they formed a hardened 'plaster cast' (<u>https://www.mountsinai.org/health-library/herb/comfrey</u>)
- Never to be used on broken skin, Prolonged use is not advised and any use is recommended along with a professional, not for children or pregnant people, comfrey contains alkaloids which can be toxic to the liver.(https://pmc.ncbi.nlm.nih.gov/articles/PMC3491633/)
- Often used as a border plant in permaculture because it can create thick boundaries to contain other plants.
- The leaves are extremely high in nitrogen and can be used to make a natural fertilizer by steeping leaves in rainwater for a week.

#### 20. <u>Crab Apple</u>

Malus floribunda Rosaceae Non-Native- Japan and East Asia Spring bloom early fall fruit Gardens: Dooryard

• Apples have a genetic property referred to as extreme heterozygosity. This means



alleles of genes can be radically different, and almost always, a seedling apple tree will bear fruit nothing like the apple from whence the seed came. For this reason, apples are mostly reproduced via grafting, where "fruit stock" or a branch from an apple tree with preferable fruit is fused onto "root stock", a hearty, disease resistant base. It is possible to graft multiple different kinds of apples onto one root stock, making a tree with several varieties. Crab Apples are often used for rootstock.

- Apple wood is dense and resilient, with a straight grain and fine texture that polishes well. It's used for turnery, handles, carving, inlay, veneers, pipes, cabinetry, and specialty wooden household objects like spoons and bowls.
- Apple wood has a sweet scent and is often used for firewood and smoking. Wood chunks can produce a mild, smoky flavor with a hint of sweetness that pairs well with vegetables, pork, and beef.

#### 21. White Currant

*Ribes rubrum* Grossulariaceae Non- Native (Europe) Gardens: North Dutch

- White currant berries are slightly smaller and sweeter than red currants.
- The seed oil, leaves, fruit and flower can all be used.
- Good for lowering cholesterol and other fats in blood, high in antioxidants and anthocyanins and polyphenols Vit. C, gamma linoleic acid.



• Many ribes species are restricted in NY because they can spread a fungus called white pine blister rust.

# 22. Flowering Dogwood

Cornus florida Cornaceae american dogwood, cornelian tree Spring bloom Gardens: North Garden

- Showy "petals" are not technically flowers, but modified leaves called bracts.
- Fruit is important to many songbirds in late summer and fall. Some primary users are cardinals, thrushes, and cedar waxwings



- In traditional medicine, dried ground bark is used as a quinine substitute for fevers and malaria. Dried root bark used as an antiperiodic, astringent, diaphoretic, mild stimulant and tonic.
- May have gotten its name from the bark being used to treat dogs with mange.
- Red dye can also be obtained from the roots but care is needed not to damage the tree
- hard, dense wood has been used for products such as golf club heads, mallets, wooden rake teeth, tool handles, jeweler's boxes and butcher's blocks.

#### <u>Lore</u>

- Robust mythology in many myths and legends that originated in the Appalachians, in the original homeland of the Cherokee and the heart of the distribution range of the flowering dogwood.
- The Mohawk identify the cosmogonic Tree of Life in the Sky World with a giant dogwood.
- The Cherokee have legends about the Little People. Like many cultures around the world, Cherokee lore recounts a small race of anthropomorphic spirits known as the Little People, or Yunwi Tsunsdi, not dissimilar to the Celtic pixies, or leprechauns. These beings were described as handsome little people with black, white or golden skin. They were gentle and helpful creatures, though they could sometimes be mischievous, especially if they felt bothered or intruded by humans. They were also believed to have the power to befuddle people's minds. But they were mostly considered protectors and wonder workers. People could hear them sometimes at night, drumming and talking deep in the woods, or just right outside their houses. There are at least three clans of Little People: Rock People, Laurel People, and Dogwood People. The Rock Little People are mean and vengeful, but only as a reaction of having been invaded. The Laurel People just like to have fun: they are lighthearted and joyful. And the Dogwood people, last but not least, are benevolent creatures who loved to help others. Their teachings are simple: respect the boundaries of others, don't take life too seriously, and do good for goodness sake without expecting a reward. If we consider the beauty of the tree, and its value as a resource, it's easy to understand why the kindest of the Little People are identified as Dogwood People. (Sourced from Go Green Brooklyn article by José Miguel López, 2018<a href="https://gogreenbk.org/flowering-dogwood-myths-and-medicine/">https://gogreenbk.org/flowering-dogwood-myths-and-medicine/</a>)
- According to biblical legend, the dogwood was Adam's favorite tree. The devil tried to sneak into the garden of Eden to knock down all the blossoms using a locust tree to climb the wall but the dogwoods "blossoms" are in the shape of a cross so he only managed to take a bite from each petal. The locust then grew thorns so it couldn't be used to climb the garden wall again.
- Supposedly dogwood was the wood used on the cross that Jesus was crucified on. Pre crucifixion, the dogwood was rumored to be the size of an oak but after Jesus was crucified, the tree felt guilty and Jesus, in lieu of the tree's guilt declared that no dogwood will ever grow large enough to be used for a crucifixion again.
- The legend, of course, has no biblical basis. For one thing, dogwoods are not native to the Middle East, and dogwoods did not grow in Jerusalem at the time of Jesus. It's likely this mythology was invented in the early 20th century by Christians in eastern North America

#### 23. <u>Echinaceae</u>

*Echinacea purpurea* Asteraceae purple coneflower, elkroot Native Summer bloom Gardens: Pollinator, South Dutch



- Etymology Greek ekhinos- sea urchin or hedgehog.
- Important pollinator plant.
- One of the most popular, well known medicinal herbs worldwide.
- Widely used medicinal herb commonly used for bolstering the immune system against infection and inflammation. Both the plant's upper parts and roots are used in tablets, tinctures, extracts, and teas.
- contains polysaccharides in its roots which contain volatile oils, the combination of which are used medicinally, very high in antioxidants.
- When given a high dose in a short amount of time, it boosts the immune system, which is helpful for viral infections such as colds and flu. When given low doses for longer periods of time, it has the opposite effect and decreases the immune response .<u>https://art.msu.edu/purple-coneflower-echinacea-purpurea/</u>.
- Ute call it elk root because of folk knowledge\lore of elk seeking it out when wounded
- Wild echinacea is largely endangered due to overharvesting

#### 24. <u>Elder</u>

Sambucus canadensis Adoxaceae elderberry, elderflower Native Late spring bloomsummer fruit Gardens: Farm, Pollinator, North Dutch





- Pollinator plant and berries valuable food for wildlife, high medicinal value
- Readily sprout at their roots, can be reproduced from cuttings.
- Only eat the berries and flowers; the leaves and stems are poisonous. Avoid eating too many raw berries, a few are safe but in abundance can cause stomach upset and diarrhea.
- The berries are sweet and large quantities should be cooked to be eaten. They're high in vit C and flavonoids like anthocyanins which are stimulating to the immune system. Also used as a diaphoretic. Elderberry has been shown to reduce viruses and bacterias (E.coli and Strep) ability to spread. (<u>https://www.nccih.nih.gov/health/elderberry</u>)
- Can be used as a dye plant. Bark will make black dye; the leaves gently simmered with alum will yield a green dye. Berries have a deep purple hue adding salt makes a lilac.
- Indigenous Americans make flutes from the branches because the pith, or center is spongy and when dried the stem becomes hollow. Can also make spiles and spouts for maple syrup tapping.
- Brews of the leaves can be sprayed to repel insects and rodents.

# Lore

- In Iceland, it's considered Pan's plant as he made his pan flute from it. Can also make and spouts for maple syrup tapping.
- Older European mythology, the Danish used to believe the tree was the sacred Elder Motherqueen of the underworld (pan is lord of the underworld) who was believed to reside inside the plant and had the power to both protect and to harm.

- The Elder is symbolic of endings and rebirth from its association with the Celtic festival of Samhain (Halloween) and Elder branches are hung over the doors to ward off evil spirits.
- The Druids, (Celtic people) believed the trees protective power came from the White Goddess guardian of the elderworld created a clear association with death it was used in funeral rituals.

#### 25. False indigo

Baptisia australis Fabaceae (Legume) wild blue indigo, rattleweed Native Spring bloom Gardens: South Dutch



- Dye plant makes a muted greyish blue.
- Slightly inferior to true indigo in terms of dye.
- The Cherokees traditionally use it as a source of blue dye, a practice copied by European colonizers.
- Ripened seed pods can be used as children's rattles. However, use caution as seeds are toxic

#### 26. Feverfew

Tanacetum parthenium Asteraceae (Daisy) Early summer flower Gardens: Dooryard



- A wonderful pollinator attractor
- Feverfew is used mostly to treat and prevent headaches. It contains camphor and was popular in the 1980s as a treatment for migraines. A survey of 270 people with migraines in Great Britain found that more than

70% of them felt much better after taking an average of 2 to 3 fresh feverfew leaves daily(<u>https://www.mountsinai.org/health-library/herb/feverfew</u>)

• In topical skin care, bioactive compounds derived from the feverfew plant are used for their antioxidant and anti-inflammatory properties

# 27. Fothergilla

Fothergilla gardenii Hamamelidaceae (witch hazel) witch-alder Native Spring bloom Gardens: Dooryard, Pollinator

- Flowers are attractive, fragrant and fluffy, emerging early spring before the leaves, an important source of food for pollinators in early spring.
- Reportedly can deter deer.
- Leaves turn scarlet in autumn.
- Named after James Fothergilla, an English doctor interested in natural history .

# 28. <u>Wild Geranium</u>

Geranium maculatum. Woodland geranium Geraniaceae April- June Native Gardens: North Dutch

• Geranium is derived from the Greek geranos, meaning crane. This refers to the seed pod, not the flower. The seed capsules split lengthwise resemble a crane or a stork. This plant's pollen, unlike others which are white or yellow or



orange, under a microscope is bright blue which attracts a variety of pollinators.



- This plant has a very interesting seed dispersal technique called ballochory, or dispersal by propulsion. The seed capsule, once formed, dries and begins to split. When it breaks open the seeds are catapulted into the air, sending them as far as thirty feet.
- Each seed has a little tail or "awn" which is malleable, curling when dried and straightening when wet, "crawling" along the ground until a small crack is found both finding a suitable space to germinate and evading predators.
- Because its considered an astringent and hemostatic (agent that stops bleeding through mild coagulation of skin proteins) a poultice of the root is used for skin problems, healing wounds, burns and hemorrhoids. The root contains large amounts of polyphenols called tannins. These bind and precipitate proteins; when applied topically they to the mucous membrane causing it to constrict or shrink. This serves the dual purpose of protecting and healing. (https://cornellbotanicgardens.org/plant/wild-geranium/)
- **29.** <u>Goldenrod</u> We have several species of goldenrod at OSH, including:









Solidago canadensis. Canada goldenrod

Solidago caesia Blue Stemmed Goldenrod Solidago sempervirensSolidago nemoralisSeaside Goldenrod Grey Goldenrod

Native

Late summer- fall bloom

#### GENERAL NOTES ON GOLDENROD

- Etymology; solidigo, Latin/soladare, to unite, to make whole (solder).
- Contains anti-inflammatory, antioxidant and analgesic properties Historically, goldenrod has been used on the skin to heal wounds. It has also been used as a diuretic, meaning it helps the body get rid of excess fluid. A few animal and test tube studies suggest goldenrod may help reduce inflammation, relieve muscle spasms, fight infections, and lower blood pressure. It does seem to act like a diuretic and is used in Europe to treat urinary tract inflammation and to prevent or treat kidney stones. (<u>https://www.mountsinai.org/health-library/herb/goldenrodi</u>)
- Very important pollinator plant and commonly used medicinal tea.
- Anti-inflammatory can make herbal liniments for joints, decoction of leaves and flowers for a wound wash, fights fungal infections and can improve circulation.
- Entire plant is edible.
- Dye plant that makes a warm yellow dye.
- Found in meadows and prairies across US, are often the first species to arrive after a disturbance, making them a common weed on roadsides.
- People often blame goldenrod for allergies, but technically this is not possible since goldenrod is insect pollinated, not wind pollinated, meaning its pollen is too heavy and sticky to cause allergies. Ragweed, which is wind pollinated and flowers at the same time, is the actual culprit for seasonal allergies.
- Ironically, in traditional medicine, goldenrod is often used as an acute or preventative treatment for allergies.
- Goldenrod contains up to 12% rubber.
- During World War II, the U.S. government asked George Washington Carver and Henry Ford to develop a plant-based alternative to rubber during an era of wartime rationing. After weeks of experiments in Michigan in July 1942, Carver and Ford produced a successful replacement using goldenrod.<u>https://www.history.com/this-day-inhistory/george-washington-carver-begins-experimental-project-with-henry-ford</u>)

#### Lore

• In Cherokee legend, there's a tale of a brutal attack on a village in which everyone was killed except two sisters, who managed to run off and hide. One wore a lavender-blue-fringed dress and the other, a yellow-fringed dress. A medicine woman found them sleeping in the forest. Able to see into the future and know that the girls would be pursued and slaughtered, the elderly spiritualist covered the sleeping children with leaves and magically transformed one into the lavender-blue aster, and the other into yellow goldenrod. This is the folk story behind why these plants are always found growing together. (<u>https://www.adirondackalmanack.com/2021/09/asters-and-goldenrod-late-season-native-perennials.html</u>)

#### 30. <u>Gooseberry</u>

Ribes uva-crispa Grossulariaceae (currants) Non-native (Europe and North Africa) Gardens: North and South Dutch



\*Information largely interchangeable with currants, see currants.

# 31. <u>Summer Grape</u>

Vitis aestivalis Vitaceae pigeon grape Native Gardens: South Dutch

- Grape has climbing stems due to specialized vine tendrils , leaves and fruit are all edible.
- Traditional medicine includes leaves for high tanninsastringent properties
- People have been cultivating grapes for over 8,000 years
- For general health and wellness, grape leaves are a good source of nutrients, including vitamins C, E, A, K and B6, plus niacin, iron, fiber, riboflavin, folate, calcium, magnesium, copper and manganese. (<u>https://pmc.ncbi.nlm.nih.gov/articles/PMC8534917/</u>)
- Grapes contain powerful antioxidants known as polyphenols, namely resveratrol. These are thought to have anti-inflammatory and antioxidant properties. (<u>https://pmc.ncbi.nlm.nih.gov/articles/PMC8567006/</u>)



#### 32. Groundsel

Baccharis halimifolia Asteraceae (daisy) consumption weed eastern baccharis, salt bush, sea myrtle Native Gardens: North Garden, Perimeter

 Groundsel Bush is the only native eastern species of the aster family reaching





tree size

- Baccharis is the ancient Greek name (derived from
- the god Bacchus) of a plant with fragrant roots.



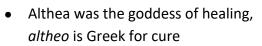
# 33. Hazelbert Tree

Gardens: Farm

- A cross between native hazelnut Corylus americana and Filbert Corylus avellana
- varietal is resistant to north American fungus crytosporella anomala.

# 34. <u>Hollyhock</u>

Alcea rosea Malvaceae (Mallow) holy mallow Not-native (Asia and Europe) Gardens: South Dutch





- Traditionally used for preventing and treating breathing disorders and digestive tract problems; some take it topically for inflammation.
- Holly hock is edible root, leaves and blossoms.
- Slightly less palatable than marshmallow root, be aware that high heat and alcohol can denature some of the medicinal compounds. Taken internally, hollyhock is soothing to the gastrointestinal respiratory and urinary tract in the body, for sore throat use cold infusions. <u>https://pmc.ncbi.nlm.nih.gov/articles/PMC5871197/</u>

# 35. <u>Hops</u>

Humulus lupulus Cannabaceae ( Cannabis) Native (West Asia, Europe and North America) Summer bloom Gardens: Farm, South Dutch



- Perennial herbaceous vine lupulus means small wolf, like due to this plant's tendency to kill other plants by strangling and blocking light.
- Monoecious, meaning male and female part exist on the same individual plant
- Long history of uses, alongside beer.
- Tea has a sedative effect and bitter flavor.
- Several first nations communities such as Cherokee, Mohegan, Fox and Delaware have historically used it as sleep aid comparable to benzodiazepines for insomnia issues. Aids in menopause symptoms (<u>https://pubmed.ncbi.nlm.nih.gov/9757514/</u>)

- propagate from suckers. Slightly unruly needs pruning and trellising.
- Drying hops tend to lose their potency when exposed to light and air. Area of interest in hormone replacement therapy for people going through menopause.
   (<u>https://news.oregonstate.edu/news/good-news-menopausal-women-taking-hop-supplements-tests-show-no-drug-interactions</u>)
- Toxic to dogs.

#### 36. <u>Horsetail</u>

Equisetum hyemale Equisitaceae Native Spores in late summer Gardens: Dooryard



- This plant lived in the Paleozoic period along with ginkgos, also living fossils. Dinosaurs literally ate this plant.
- Only remaining genus in Equisetaceae family of ferns.
- Fine silicas in the coating of the plant were used historically as scouring tools. Rough horsetail is still used in Japan for the final polish step in wood crafting.
- From the only family of vascular plants that still extant that reproduce using spores.
- Traditionally used as diuretic and it is suggested that the silica could help with bone skin hair health though this has yet to be confirmed in a lab setting.

# 37. Oakleaf Hydrangea

Hydrangea quercifolia Hydrangeaceae Native to SE Gardens: Dooryard

 Popular and native ornamental named for the similarities of its leaf shape to that of oak trees



#### 38. Inkberry

*llex glabra* Aquifoliaceae Appalachian tea, evergreen winterberry Native to NE Gardens: North Dutch



- Good pollinator pant.
- Named as such because during the Civil
   War, soldiers used the berry as a substitute for ink to write home.
- Great food for songbirds.
- Not consumable for people but useful as a dye plant dark to light green dye.

#### 39. German Bearded Iris

Iris x germanica Iridaceae Bearded iris Early spring bloom Gardens: Dooryard



- Iris is a valuable food source in early spring, and the flowers have a complicated morphology .
- The iris's blossoms have evolved to move pollen very efficiently from flower to flower. Bees can't help

rubbing against the pollen-bearing anther, located overhead and positioned so that the grains can't fall onto the stigma, self-fertilize, and lead to poor-quality seeds. The sticky stigma is situated such that the visiting bee will deposit pollen from other flowers.

• The leaves, too, are specially designed. Grass like and vertical, they allow the sunlight to penetrate through the mass of vegetation in a tightly packed colony of plants. What's more, unlike broad-leafed plants, the iris can photosynthesize on both sides of its leaf, not just the upper surface.

• The species has been implicated in several poisoning cases of humans and animals who consumed the rhizomes, which have been found to contain a glycoside, iridin. The sap can cause dermatitis in susceptible individuals

#### 40. Joe-Pye Weed

- Eutrochium purpureum Asteraceae Native Late summer flower Gardens: Dooryard
- Important pollinator plant.
- Can be used as a diuretic.
- Named after the nickname of Joseph Shauquethqueat 18-19th century Mohican sachem who lived in what is now Stockbridge Mass + New Stockbridge NY.



- Folklore suggests he used it to cure fever and saved an entire town from a typhus outbreak.
- Can be propagated by dividing off a section after bloom.
- Dye plant makes a light-yellow dye .

#### 41. Juneberry.

Amelanchier sp. serviceberry, saskatoon Rosacea Native Spring bloom early summer fruit Gardens: Pollinator, Perimeter

 The fruit is edible, tastes like a mix between a pear and a blueberry and has a lovely almond flavor to the seeds.



- The flowers bloom about the time the snow clears enough that roads in the Appalachian Mountains become passable, allowing circuit riding preachers to resume service.
- saskatoon originates from a Cree noun-misâskwatômina.
- Readily grafts onto hawthorn.
- The flowers are pollinator favorites.
- wood is good for tool handles and fishing rods and arrow shafts.



#### 42. Jumpseed

Persicaria virginiana Polygonaceae (buckwheat) Virginia knotweed, woodland knotweed Native Gardens: South Dutch



- Shade loving perennial gets its name from its seeds which can be catapulted several feet from the stem at the slightest touch, hence the common name "jumpseed."
- can be used to help stabilize soils in low, wet areas. Note that it can spread aggressively, both by roots and from seeds.
- Good pollinator plant, by midsummer, it is common to see plenty of little holes in the leaves, a testament to the plant's role in a healthy food web.

#### 43. Korean Celery (Seombadi)

Dystaenia takesimana Umbelliferaceae (carrot family) ulleung giant celery or Korean pig plant, Not native (Ulleungdo Island, South Korea) Gardens: South Dutch, Farm



- It has a somewhat stronger flavor than celery (but not as strong as lovage), makes a great addition to soups, and stays green through even some very harsh winters.
- Lovely white umbel flowers bloom in spring, valuable for pollinators.



#### 44. <u>Lemon balm</u>

Melissa officionalis Lamiaceae (mint) South Central Europe, Mediterranean Basin and Iran Harvest spring/ summer Gardens: Farm Garden, Dooryard

- Melissa is Greek for honeybee, goddess of bees.
- The main alkaloid in lemon balm is molecularly very similar to a pheromone released from bees to mark a good food source. For this reason, beekeepers commonly use the crushed leaves to attract bees to a newly constructed hive.



- In Greek mythology, a group of nymphs called Mellisai were credited with discovering honey.
- A 2004 study found that taking lemon balm eased the negative mood effects of laboratory-induced psychological stress. Participants who took lemon balm selfreported an increased sense of calmness and reduced feelings of alertness. Widely considered a calming herb. Clinically studied and proved to reduce anxiety. It's been used for ages to reduce stress and anxiety, promote sleep, improve appetite, and ease pain and discomfort from indigestion. (https://pubmed.ncbi.nlm.nih.gov/34449930/)
- The use of lemon balm can be dated to over 2000 years ago through the Greeks and the Romans. Lemon balm was steeped in wine to lift the spirits, help heal wounds, and treat venomous insect bites and stings. Today, lemon balm is often combined with other calming, soothing herbs, such as valerian, chamomile, and hops, to promote relaxation. It is also used in creams to treat cold sores.

# 45. <u>Lilac</u>

Syringia vulgaris Oleaceae (Olive) Non-native (Asia but naturalized in Europe and North America) Gardens: North Garden

- The genus name Syringa is derived from Ancient Greek word syrinx meaning "pipe" or "tube" and refers to the hollow branches of S. vulgaris.
- Lilacs bloom best when unpruned.
- edible flowers are beneficial insect attractors.
- flowers are slightly astringent.
- Used in colonial America as a vermifuge. Also used as a fever reducer.
- The god Pan was in love with a nymph named Syringa; he was relentless in his pursuit of her and as a last resort to avoid him she turned herself into a lilac.
- In addition to the Elder, it is said Pan used part of the branch to make his flute.



### 46. Milkweed

Asclepias syriaca Apocynaceae (dogbane) Native Gardens: Many, mainly Farm

- All parts of common milkweed plants produce a white latex when cut.
- Has a symbiotic relationship with monarch butterflies and milkweed bugs. Young pod (2 inches or less seeds should not be visible) leaves, buds, flowers and shoots are edible once cooked.



- Raw milkweed has cardiac glycosides which are denatured when cooking. Quick blanch and a sauté will denature them. The buds absorb oil and water though so a steam and a little finishing butter is good for those, you can also pickle these like capers!
- Has poisonous latex sap. Seeds need cold stratification; the root has traditionally been used in small doses as a general purge and for destroying parasites pillows and mattresses have been stuffed with the silk.
- Milk white sap was used topically for warts in traditional medicine.
- Dogbane is similar but has a woodier stem.
- Do not get sap in your eyes, wash hands thoroughly after handling some people are allergic.
- Monarch caterpillars are immune to the toxin and in fact accumulate enough of it to become toxic to predators. Milkweed leaves are the caterpillars' only source of food; the nectar then provides food for the butterflies who prefer to lay their eggs on milkweed plants.
- Fiber from the stems can be used to make rope.

# 47. Motherwort

Leonurus cardiaca Lamiaceae throw-wort lions ear lions tail Non-native (Central Asia and S.E Europe) Gardens: Farm

- Genus name comes from the Greek "leon" meaning lion and "oura" meaning tail in reference to the flower. Species comes from the Latin cardiaca meaning used for treating heart conditions in reference to the former medicinal use of the plant as a heart regulation herb.
- Thrives in roadsides, vacant fields, Introduced to North America as a bee foraging plant now considered invasive.
- Motherwort can reduce inflammation and has antioxidant and microbial effects, also stimulates uterine contractions. (https://pmc.nchi.nlm.nil



contractions. (https://pmc.ncbi.nlm.nih.gov/articles/PMC6500680/)

- Help with regulation of menstrual especially related to anxiety and tension. Also used as tonic for heart palpitations Contains leonurine, a compound found to promote leonurine which relaxes blood vessels in the heart.
- Slightly sedative, can cause drowsiness.
- Should not be taken if on heart medication/bleeding disorders, or blood thinners on sedative medications/ undergoing surgery those with low blood pressure pregnant or breastfeeding ' mother wound relationship bring on suppressed menstruation, easing cramps.

# 48. <u>Mullein</u>

Verbascum thapsus Scrophulariaceae (figwort) great mullein, common mullein, Jupiter's staff, Aarons rod Non-native (Europe and North Africa, but naturalized in the Americas) Gardens: Farm

- Widely used medicinal plant.
- Dye plant- bright green or yellow.
- Biennial meaning it sprouts the first year and flowers the second year.
- Used as folk medicine for pulmonary issues. Vaso and bronchodilator. Tea should be finely filtered because the hairs can be irritating. In the time of the colonization of the Americas, it was used as diaper or shoe insulation.



- The spike inflorescence (flower) can be dipped in oil or grease and used as a torch.
- Oil from the flower has been used in folk medicine as a remedy for skin issues. Works as an expectorant.
- Seeds have been recorded to remain viable for 120 years.
- Harvest Mullein leaves at the end of first year's growth.
- Demulcent (tissue coating) from polysaccharides saponin's properties as well as antiinflammatory antiviral and antibacterial effects from glycosides. Saponins have expectorant effect <u>https://pmc.ncbi.nlm.nih.gov/articles/PMC8301161/</u>

### 49. <u>Ninebark</u>

Physocarpus opulifolius Rosaceae ( Rose) Native Early Summer flowers Gardens: Pollinator

- Ninebark is a fast-growing shrub that's a great pollinator plant, especially for honeybees.
- A tea made from the inner bark is laxative and emetic (induces vomiting).
- Historically used to treat gonorrhea and tuberculosis.



### 50. <u>Paw paw</u>

Asimina triloba Annonaceae (soursop family) custard apple, American paw paw Native to Eastern NA Gardens: North Dutch, South Dutch

- Largest edible fruit native to the US cultivated by Indigenous North Americans for centuries.
- Paw paw fruits are sweet, with a custard-like texture, and a flavor similar to banana, mango, and pineapple. They are commonly eaten raw but are also used to make ice cream and baked desserts.
- The bark, leaves, fruit, and seeds contain the potent neurotoxin annonacin. It's recommended not to eat them too regularly.



### 51. Espalier Pear

Rosaceae Gardens: South Dutch

- This pear is trained in the Espalier fashion; a French horticultural practice of controlling woody plant growth to produce fruit by pruning and tying branches to a frame.
- Should be harvested when mature but unripe. Ripened off the vine in a process called bletting.



• Leaves make a yellow dye. wood is heavy, durable, fine grained and hard used by cabinet and instrument makers.

### 52. <u>Peony</u>

Paeonia spp. Non-native (Asia, Europe, and Western North America.) Gardens: North Dutch

- The petals may be added to salads or to punches and lemonade.
- The peony is among the longest-used flowers in Eastern culture.
- For more than 1,200 years, the dried root of the white peony has been used in eastern medicine.



- From Greco Roman time through the Middle Ages, it was cited to be a reliable treatment for "falling sickness" (epilepsy) (<u>https://daily.jstor.org/plant-of-the-month-peony/</u>)<u>https://pubmed.ncbi.nlm.nih.gov/31520267/</u>
- Studies have examined the effect of paeoniflorin, a main compound in white peony. Paeoniflorin has been found to increase the activity of aromatase, an enzyme that turns

testosterone into estrogen and reduces testosterone synthesis (<u>https://pmc.ncbi.nlm.nih.gov/articles/PMC7081021/</u>)

 Several studies found that the paeoniflorin and glycosides found in peonies can alleviate symptoms associated with a myriad of different issues including anxiety and depression, blood clots, autoimmune disorders, hormone imbalance, fever, inflammation, and pain. <u>https://pubmed.ncbi.nlm.nih.gov/31836457/</u> https://pmc.ncbi.nlm.nih.gov/articles/PMC8810059/

# 53. Common Persimmon

Diospyros virginiana Ebenaceae (ebony family) American persimmon, eastern persimmon, possum apples Native, fruit in late summer/ fall Gardens: Farm



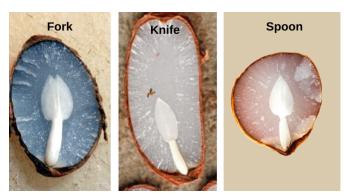
- Cultivated for food and medicinal uses by ind. People of NA for thousands of years.
- their genus name, Diospyros, roughly translates to "food of the Gods
- The word "persimmon" is an anglicized version of the Powhatan name for the fruit, pichamin.
- The fruit is high in vitamin C, and extremely astringent, much more so that its Asian relative, when unripe. Its best consumed after being cooked or dried, or after first frost
- Valuable food resource for wildlife.
- An herbal tea that can be made from the leaves that provides antioxidants such as carotenoids, flavonoids, and triterpenoids to protect the cells against the damage caused by free radicals, reducing inflammation throughout the body.

# Lore

• According to folklore, if you split open a locally grown persimmon seed and the shape inside (called a cotyledon) looks like one of the shapes to the right, it can forecast the

winter ahead: fork = winter will be mild; spoon = there will be a lot of snow; knife = winter will be bitingly cold and "cut like a knife."

 In Buddhism, persimmon is known to be a spiritual symbol of transformation, a reference to its sharp and. bitter taste when unripe (ignorance) which becomes. sugar sweet as it matures and fully ripen (wisdom).



- Scientists hypothesize that native North America megafauna, mammoths and mastodons had a symbiotic relationship with the persimmon; eating the fruit and dispersing the seed through the country during migration. A 2015 study showed that persimmon seeds passed through the digestion of an elephant highly increased their germination rates.
- The wood is heavy, strong and very close-grained and used in woodturning. Its heartwood, which may take a century before being produced, is a true ebony, extremely close-grained and almost black; it is not harvested commercially.
- The seeds were used as buttons and roasted as a coffee substitute during the privation of the American Civil War in the South.
- As the American Persimmon is closely related to the ebony tree, which is native to West Africa, enslaved Africans recognized it and used the fruit to make medicine and beer.

### 54. American Red Raspberry

Rubus stragosus Rosaceae Native spring bloom summer- fall fruit Gardens: Many, but mainly South Dutch

- Leaves and fruit are edible (best to eat leaves when young because of spikes)
- Raspberry leaf tea has long been used to promote healthy digestion and ease issues associated with the



uterus during childbirth. (<u>https://pmc.ncbi.nlm.nih.gov/articles/PMC7871383/</u> <u>https://pmc.ncbi.nlm.nih.gov/articles/PMC10383074/</u>)

- Packed with nutrients, vitamins and minerals that are great for the immune system and cellular processes Vitamins A,C,E and B which all help prevent oxidative stress.
- In high doses can become laxative limit intake to 1-2 cups daily.
- Can be used to encourage contractions and induce childbirth. Should not be taken if pregnant.

### 55. <u>Rhododendron</u>

Rhododendron spp. Ericaceae ( azalea/ blueberry) Most species are native to Asia, but small numbers occur in North America Gardens: Dooryard

 Some species of rhododendron are poisonous to grazing animals because of a toxin called grayanotoxin in their pollen and nectar.



- People have been known to become ill from eating honey made by bees feeding only on rhododendron and azalea flowers. It can have a hallucinogenic and laxative effect.
- The rhododendron is the national flower of Nepal, where the flower is considered edible and enjoyed for its sour taste. The pickled flower can last for months, and the flower juice is also sold.

### 56. <u>Rose</u>

Rosa sp. Rosaceae Many species, native and non-native Gardens: North Dutch, Dooryard, South Dutch

 Rose is a nervine, great for uplifting the mood and alleviating depression, rose also has antispasmodic, aphrodisiac and sedative qualities, as well as being anti-inflammatory.



- Rose is an excellent simple astringent along with most members of the rose family meaning it tightens and tonifies inflamed tissue, both topically and internally where the medicine makes contact. This is why its commonly made into a water with witch hazel to help with skin issues (<u>https://www.sciencedirect.com/topics/immunology-and-</u> <u>microbiology/rose</u>)
- Rosehips, which come along after the bloom has faded, are a wonderful source of vitamins C, B2 and E.
- Wild roses have 5 petals but have been cultivated and bred to have more
- In ancient Greece, the rose was closely associated with the goddess Aphrodite. In the Iliad, Aphrodite protects the body of Hector using the "immortal oil of the rose. Here Aphrodite, the Goddess of Love, was seen as the creator of the rose. In one tale Adonis, her lover, was mortally wounded, when hunting, by a wild boar. She hastened to his side and from the mixture of his blood and her tears grew a superb, fragrant, blood-red rose. In another version, Adonis was more superficially wounded and Aphrodite, while running to him, scratched herself on the thorns of a rose bush. Her blood started to flow at once and the white flowers on the bush turned to red. Finally, there is a story which tells us of the origin of the white rose: Aphrodite was born of seafoam and from this foam, wherever it fell to the ground, grew white rose bushes.
- In Islamic mythology, it is said that the rose sprouted from where beads of sweat from the Prophet Mohammed fell.
- In Christian mythology the rose is associated with the Virgin Mary.
- Cherokee Mythology:

In the latter half of 1838, Cherokee people who had not voluntarily moved west earlier were forced to leave their homes in the East.

The trail to the West was long and treacherous and many were dying along the way. The People's hearts were heavy with sadness and their tears mingled with the dust of the trail.

The Elders knew that the survival of the children depended upon the strength of the women. One evening around the campfire, the Elders called upon Heaven Dweller, ga lv la di e hi. They told Him of the People's suffering and tears. They were afraid the children would not survive to rebuild the Cherokee Nation. Gal v la di e hi spoke to them, "To let you know how much I care, I will give you a sign. In the morning, tell the women to look back along the trail. Where their tears have fallen, I will cause to grow a plant that will have seven leaves for the seven clans of the Cherokee. Amidst the plant will be a delicate white rose with five petals. In the center of the blossom will be a pile of gold to remind the Cherokee of the white man's greed for the gold found on the Cherokee homeland. This plant will be sturdy and strong with stickers on all the stems. It will defy anything which tries to destroy it." The next morning the Elders told the women to look back down the trail. A plant was growing fast and covering the trail where they had walked. As the women watched, blossoms formed and slowly opened. They forgot their sadness. Like the plant the women began to feel strong and beautiful. As the plant protected its blossoms, they knew they would have the courage and determination to protect their children who would begin a new Nation in the West. (https://www.northerncherokeenation.com/the*legend-of-the-cherokee-rose.html*)

#### 57. <u>Sage</u>

Salvia officinalis Laminancea common sage, culinary sage, Non-native (Mediterranean) Gardens: Dooryard



 Salvia comes from Latin salvere meaning "to be saved" The word officinalis literally

means 'of or belonging to an officīna', the storeroom of a monastery, where medicines and other necessaries were kept. Plants that have officinalis in the Latin name almost always have traditional medicinal uses.

- In ancient Rome, sage was considered to have substantial healing properties especially with digestion of fatty foods.
- Chinese medicine uses sage to treat colds, joint pain, fever and liver problems.
- Sage is a natural antiseptic and preservative in meat.

- Tea from the leaves has been called thinkers tea and has shown promise in alleviating symptoms of Alzheimer's and depression. It's also been used to treat menopause symptoms.
- Sage can also be used externally for skin hair and nails sage tea can be used as facial toner for oily skin or to improve hair texture
- Been shown to help sore throats and canker sores/ gum disease tablespoon of sage has 47% vitamin k and is an excellent source of fiber, vit A folate calcium, manganese, folic acid and riboflavin
- <a href="https://www.nccih.nih.gov/health/sage#:~:text=Sage%20has%20a%20long%20history.c">https://www.nccih.nih.gov/health/sage#:~:text=Sage%20has%20a%20long%20history.c</a> holesterol%20levels%2C%20and%20other%20conditions.
- https://pmc.ncbi.nlm.nih.gov/articles/PMC4003706/

### 58. Snowberry

Symphoricarpos albus Caprifoliaceae Native to much of North America Early summer to winter Gardens: North Dutch

- Snow white to fuchsia waxy berries that feed wildlife in the winter months .
- All parts are poisonous for humans to ingest, causing vomiting.
- Folk Medicine topical skin care and soap.
- The wood is good for arrow shafts.
- Used for erosion control in riparian(zone between land and river/ stream) areas and is often planted in biological restoration projects.



## 59. Solomon Seal

Polygonatum biflorum Asparagaceae Great solomon's seal, smooth solomon seal Native Gardens: North Garden

- The scars on the rhizome are said to resemble King Solomon's Seal.
- traditional indigenous food consumed the starch rich rhizomes to make breads and soups. The young shoots are edible raw or boiled for an asparagus analog.
- Known to be an anti-inflammatory, especially for chronic soft tissue injuries, i.e., carpal tunnel tennis elbow runners knee.



- can be helpful for digestive regulation anti-inflammatory but really known for help with tissue tension <u>https://www.wildrootsapothecary.com/blogs/herbal-musings/solomons-</u> <u>seal-the-musculoskeletal-healing-wizard</u>
- berries toxic

60. <u>Spicebush</u> Lindera benzoin Lauraceae Early Spring flower, late summer fruit Native Gardens: Pollinator



- Spicebush only grows in woodland with rich soil and can be an indicator of fertile land.
- Spicebush is edible and has a complex, citrus-like flavor. The leaves, twigs, buds, flowers, and unripe and ripe fruit can all be used in recipes. The fruits can be dried, ground and used as an allspice substitute.
- Spicebush is a favorite food source of the spicebush swallowtail butterfly.
- Spicebush has astringent, tonic, and diaphoretic properties.
- Its traditionally used to treat colds, and rheumatism induce sweating( <u>https://medicinalforestgardentrust.org/spicebush-research-notes/</u>)
- Traditional Native Americans medicine uses the plant for many ailments, and by the Cherokee and Ojibwa for flavoring food.

# 61. Strawberry

Fragaria sp. Rosaceae Some are native, these are cultivated, so likely non-native. Gardens: Farm

 Strawberries have an extensive history, the first garden strawberry was grown in France during the 18th century, brought from Chile but wild strawberries were transplanted from native woods as far back as the 14th century.



- The Chilean strawberry fostered by indigenous Chileans bore larger more abundant fruit and then Spanish colonizers arrived in the 1550's and hybridized it with European varieties.
- The strawberries we eat today are a result of that hybrid. They can be either June bearing or ever bearing.
- They contain high amounts of antioxidants.
- Strawberries multiply asexually by runners berry not technically a berry but part of the flower. Because the seeds are on the outside. Botanists call the strawberry a "false



fruit," a pseudocarp. A strawberry is a multiple fruit which consists of many tiny individual fruits embedded in a fleshy receptacle.

- The leaves and roots are diuretic and can help with arthritis. https://pmc.ncbi.nlm.nih.gov/articles/PMC7390916/ )
- Used externally strawberry has astringent properties making it very useful for the treatment of skin problems. Infusion of the leaves are astringent as well. For this reason, they can also address inflammation of gut such as heartburn or gastritis. <u>https://pmc.ncbi.nlm.nih.gov/articles/PMC9966301/</u>

### 62. <u>Sunchoke</u>

Helianthus tuberosus Aster (Daisy) Jerusalem artichoke, sunroot, earth apple Native Gardens: Farm



 Jerusalem artichoke has no relationship to Jerusalem, and it is not a type of artichoke, though the two are distantly related as members of the daisy family. Italian settlers in

the United States called the plant girasole, (jee-ra-sol-eh) the Italian word for sunflower, because of its familial relationship to the garden sunflower. Over time, the name was corrupted by English-speakers to Jerusalem.

- Tubers can be eaten raw, cooked or pickled.
- Cultivated perennial food source for indigenous people in the Americas before arrival of Columbus.
- For full tuber production, cut the stacks down to about 1 ft in the middle of the summer.
- It has also been reported as a folk remedy for diabetes since inulin is not assimilated in the intestine, it doesn't cause a glycemic spike as potatoes would.
- Competitive with other plant species, best planted with a border.

# 63. <u>Tansy</u>

Tanacetum vulgare Asteraceae (Daisy family) golden buttons, bitter buttons Native to Eurasia but naturalized in the US and considered invasive in some places. Summer bloom Gardens: Pollinator

- Can be used to make a natural yellow dye.
- Tansy is used as a companion plant, especially with cucurbits like cucumbers and squash, or with roses or various berries. It is thought to repel ants, cucumber beetles, Japanese beetles,



squash bugs, and some kinds of flying insects, among others.

- Many tansy species contain a volatile oil which can cause contact dermatitis in sensitive individuals. If taken internally, toxic metabolites are produced as the oil is broken down in the liver and digestive tract. It is highly toxic to internal parasites, and for centuries tansy tea has been prescribed by herbalists to expel worms.
- Traditionally, tansy was often used for its emmenagogue effects to bring on menstruation or end an unwanted pregnancy, and pregnant women are advised to not use this herb.

#### 64. Blue Vervain

Verbena hastata Verbenaceae American vervain, swamp verbena Native Gardens: Dooryard



• Good pollinator plant.

- Verbena hastata comes from the Latin word verbena meaning "sacred" or "bough." In classical Latin, verbena refers to leafy branches or twigs used in religious ceremonies or for medicinal purposes.
- The verbenalin in vervain, an iridoid glycoside known for its calming effects, has prompted some research on the herb's potential for reducing anxiety and depression.(<u>https://pmc.ncbi.nlm.nih.gov/articles/PMC5174135/</u> <u>https://www.frontiersin.org/journals/plant-</u> <u>science/articles/10.3389/fpls.2023.1154266/full</u>
- It can, however, interfere with blood pressure medication and hormone therapy, and large doses cause vomiting and diarrhea.
- Blue Vervain plant was also used as an antidote for American Pokeweed poisoning. <u>https://www.washcoll.edu/learn-by-doing/lifelong-</u> <u>learning/plants/verbenaceae/verbena-hastata.php</u>

# 65. Viburnum, Highbush Cranberry

Viburnum trilobum Caprifoliaceae American Cranberry, guelder rose, cramp bark Native: North America, Newfoundland Gardens: North Dutch



- Not a true cranberry.
- The bark is laxative.
- Viburnum trilobum is used interchangeably with V. opulus under the common name Cramp Bark. As the common name suggests the bark is used to treat uterine cramps as well as dysmenorrhea, PMS, cramps of other smooth muscles including intestines, and some symptoms of miscarriage. Its antispasmodic qualities are often attributed to the presence of valerenic acid. (<u>https://ag.missouristate.edu/PBTrewatha/americancranberrybush-viburnum.htm</u>)
- Fruit is juicy but acidic, the taste is best after a frost. The fruits are rich in vitamin C, they are an excellent substitute for cranberries and are used in preserves, jams etc. A jam made from the fruit has a very pleasant flavor that goes well in a porridge and is used to spice wild game

#### 66. <u>Vitex</u>

Vitex agnus-castus Lamiaceae chaste tree, monks pepper Native to Mediterranean Gardens: Dooryard

 It has been long believed to be an anaphrodisiac – leading to its name as "chaste tree" – but its effectiveness for such action remains unproven.



- It was used as a spice, and also historically valued for its medicinal properties, including uses as an abortifacient, with further properties suggested by modern studies
- People taking dopamine-related medications or Parkinson's disease medications should avoid using chasteberry. Women on birth-control pills, hormone-replacement therapy, or having a hormone-sensitive condition, such as breast cancer, are advised not to use chasteberry.(<u>https://www.urmc.rochester.edu/encyclopedia/content?contenttypeid=19</u> <u>&contentid=ChasteTree</u>)
- In ancient Greece, the chaste tree played a significant role in the female agricultural festival of Thesmophoria, dedicated to honoring the goddesses Demeter and Persephone in Greek cities.

## 67. <u>Wineberry</u>

Rubus parviflorus Rosaceae redcaps, thimbleberry Native Late summer bloom Gardens: North Garden

- The berries edible, beware of thorns
- Thornless young shoots can be eaten raw or as a cooked veg.



- Indigenous North American folk medicine-tea made from leaves was used for wounds, burns, acne and oily skin issues and digestive problems.
- A poultice of the dried powdered leaves treats wounds and burns, and the fresh leaves can be crushed and applied to treat acne. A decoction of the roots has also been taken to treat acne. This is synonymous with other members of the rose family as an astringent.
- Berries are rich in vitamin c.

### 68. <u>Winterberry</u>

*llex verticillata* Aquifoliaceae black elder coralberry, fever bush, Canada holly Flower in fall fruit in winter Native Gardens: North Garden, Farm

- Great source of food for songbirds through the winter.
- dioecious meaning male and female plants are distinct separate individuals.



- Seeds, leaves bark and berries can cause nausea and low blood pressure if ingested
- Native folk medicine uses a bark tea as treatment for diarrhea.

 Bark for fevers and parasites and externally for skin issues. the leaves, dried and crushed can be used for tea however, as mentioned slightly toxic so best leave it for food for the birds. <u>http://naeb.brit.org/uses/species/1979/</u>)

# 69. <u>Witch Hazel</u>

Hamamelis virginiana Hamamelidaceae Native Gardens: Dooryard

 The common name "witch hazel" likely comes from the Old English word "wych", which means "to bend". Early European settlers used forked branches of the witch hazel tree as divining rods to find underground water.



The leaf, bark, and twigs are used to make medicine.
 Witch hazel contains chemicals called tannins. When

applied directly to the skin, witch hazel might help reduce swelling, help repair broken skin, and fight bacteria.

• Witch hazel contains many compounds with potent anti-inflammatory properties, including gallic acid, and

antioxidants.<u>https://pubchem.ncbi.nlm.nih.gov/compound/Witch-Hazel</u>

 The most interesting use has been the use of forked limbs as dowsing or divining rods. Early European colonizers observed Native Americans using American witch hazel to find underground sources of water. This activity is probably where the common name witch hazel came from. "Wicke" is Middle English for 'lively' and 'wych" is from the Anglo-Saxon word for "bend." American witch hazel was probably called a Wicke Hazel by early white settlers because the dowsing end of the forked branch would bend when underground water when detected by the dowser. This practice had a widespread use by American settlers and then exported back to Europe. Dowsing became an established feature of well-digging into the 20th

century.https://www.haverford.edu/arboretum/blog/wonders-witchhazel#:~:text=They%20would%20observe%20if%20the,plant's%20common%20name%2 C%20witch%20hazel.

# 70. Woodbine

Clematis virginiana Ranunculaceae (buttercup) Woodbine, virgin's bower, devils darning needles Native Gardens: Dooryard

 All parts of the plant are poisonous if consumed



- Hardy vine has showy fragrant flowers that are good for pollinators, seeds have lovely silvery tails.
- Few perennials that will flower in the shade

### 71. Woodland Sunflower

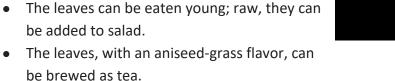
Helianthus divaricatus Asteraceae (Daisy) rough woodland sunflower Native Midsummer to fall bloom Gardens: Dooryard, Farm

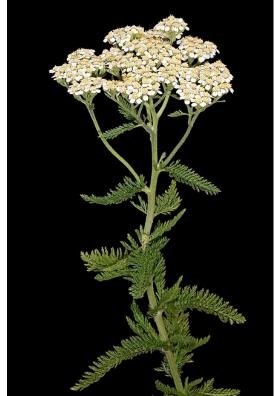
• Good pollinator plant



### 72. <u>Yarrow</u>

- Achillea millefolium Asteraceae (daisy) Common yarrow, soldierwort Native Summer bloom Gardens: Farm
- Great pollinator plant, and companion plant, repelling insects, can be used as natural bug repellent when rubber on skin, or planted to discourage mosquitos
- The entire plant is reportedly edible and nutritious, but it is advised not to consume too much.
- The leaves can be eaten young; raw, they can be added to salad.





- It has been used since ancient times to heal wounds and stop bleeding, it is a coagulant, and in the sixteenth century the crushed leaves were used to stop nosebleeds. Soldiers would carry it in their medical kits in world war I for first aid to stop bleeding. Applied to the skin for wounds and minor bleeding
- Taken by mouth to reduce inflammation, especially in the digestive tract
- Taken as a sedative to relieve anxiety or insomnia https://pmc.ncbi.nlm.nih.gov/articles/PMC9598488/
- Drought resistant
- Yarrow stalks are used in I Ching divination,
- In the Classical Greek epic Iliad, Homer tells of the centaur Chiron, who conveyed herbal secrets to his human pupils and taught Achilles to use yarrow on the battlegrounds of Troy. The genus name Achillea is inspired by the alleged use of the herb by Achilles to treat his soldiers' wounds. Hence the Latin name. https://www.mountsinai.org/healthlibrary/herb/yarrow

# 73. <u>Yucca</u>

Yucca filimentosa. Asparagaceae Adams Needle Non-native to Northeast (Southeast/West Americas) Gardens: South Dutch

- Yucca's stalk, flowers, and fruit (seeds removed) are all edible and its root is used to make soap. The flowers and flower buds can be pickled or brined, with a result that tastes much like olives.
- Early reports of the species were confused with the cassava (*Manihot esculenta*).Consequently, Linnaeus mistakenly derived the generic name from the Taíno word for the cassava, yuca
- Leaves can be used for fiber arts
- Cooking breaks down the saponins that give raw yucca its soapy flavor and ability to make soap



- One of the most amazing things about yucca is the "obligate mutualism" relationship it has with multiple species of small white moths. The moths can only lay their eggs in the yuccas and the yucca can only be pollinated by the moths specialized mouthparts
- In rural Appalachian areas, referred to as "meat hanger" With their sharp-spined tips, the tough, fibrous leaves were used to puncture meat and knotted to form a loop with which to hang meat for salt curing or in smokehouses.
- The fibers can be used to make domestic items or for manufacturing cordage, be it sewing thread or rope.

Other noteworthy plants found in the **perimeter gardens of 3rd Street, 5th Avenue, and 4th Street**:

## 74. <u>Redbud</u>

Latin: Cercis canadensis Family: Fabaceae AKA: Eastern Redbud, judas tree Native to Eastern North America Sun/Water: partial/ well drained

- Flowers are edible and are eaten fresh or dried. have a sweet/tart peanut flavor.
- In some parts of southern Appalachia, green twigs are used as seasoning for wild game often called spicewood tree in these areas.



- Indigenous tradition consumes it raw or in tea and eat the roasted seeds.
- The leaves can be eaten in early spring 2 " across max. fully grown leaves are high in fiber so could affect dig.
- High in Vitamin C. Redbud pods can be eaten young, slightly astringent so good for pickling. When pods dry out or get tough it's time for seeds. Indigenous trad.- roast the whole pods in coals and then shed them for cooked seeds. 22-27 percent protein 7-8% fat. pods hang on the trees well into the winter depending on weather conditions.
- The plant is reported to contain a toxic saponin. Although toxic, saponins are poorly absorbed by the body and most pass straight through without any problem. They are also broken down to a large extent in the cooking process. Saponins are found in many foods, such as some

beans.<u>https://pfaf.org/user/Plant.aspx?LatinName=Cercis+canadensis#:~:text=The%20p</u> <u>lant%20is%20reported%20to,extent%20in%20the%20cooking%20process</u>.

 Members of the pea family have nitrogen fixing capacity because of rhizobium in root nodules

# 75. <u>Fragrant Sumac</u>

Latin: Rhus aromatica Family: Anacardeacea ( cashew) lemon sumac aromatic sumac Native Gardens: Perimeter



- bark for all sumacs has been used as an astringent
  - + leaves and barks can be used for tanning leather because of high tannin content.
- Dioecious meaning plants have male reproductive organs on one individual and female in another
- Fruit is edible raw or cooked soak for 10-30 minutes to make a lemonade-like drink. Do not boil, tannic acid will be released making it astringent.
- Leaves are astringent and diuretic. They were used in the treatment of colds used in treatment of colds and stomach bleeding the root bark is astringent and diuretic.
- Topically for skin irritation and sore throats fruit is important winter food for birds
- can be used to make a yellow dye
- Cheyenne traditional medicine uses dried leaves of fragrant sumac and mixed with tobacco, red willow dogwood and bearberry to make a smoking blend. <u>https://plants.usda.gov/DocumentLibrary/plantguide/pdf/cs\_rhar4.pdf</u>
- Indigenous medicine also uses its extreme astringent power to stop bleeding in all forms from wounds to bleeding during childbirth orange to red fall foliage not to be confused with poison sumac which has yellow berries. non poison sumac species have red berries ( staghorn)

# 76. <u>Mugwort</u>

Artemisia vulgaris Asteraceae dreaming herb Native to Europe, Asia, and parts of North America Gardens: Perimeter



- Mugwort is a perennial plant that is native to Europe and parts of Asia and Africa. It now grows in many parts of the world, including North America.
- Historically, mugwort has been used in traditional systems of medicine in different parts of the world. <u>https://www.nccih.nih.gov/health/mugwort</u>, <u>https://pmc.ncbi.nlm.nih.gov/articles/PMC7583039/</u>
- Today, mugwort taken orally (by mouth) is promoted for digestive problems, irregular menstruation, and high blood pressure. It is also promoted as a sedative, laxative, and liver tonic.
- Mugwort lotion applied topically (to the skin) is promoted for itching caused by hypertrophic scars (visible, raised scars that can sometimes cause restricted movement of muscles, joints, and tendons).
- Mugwort can be used as an aromatic herb added to soups, stews or stuffing for meat dishes, or infused as a tea. The herb is said to improve digestion.
- The young stems can be added to salads and the leaves or shoots can be cooked as a vegetable.
- It yields a yellow dye,
- Is an insect repellant
- Anecdotal evidence of dream effects

# REFERENCES

Plant Databases:

North Dakota State University Cornell Small Farms Nebraska Forest Service New York Flora Atlas Lady Bird Johnson Wildlife Center Missouri Botanical Garden North Carolina Extension Plant Toolbox Medicinal Forest Garden Trust Missouri Department of Conservation Northeast School of Botanical Medicine Herb Society of America Native American Ethnobotany Database

Medicinal Information and Lore: NCBI- National Center for Biotechnology Information The Herbal Academy Native American Ethnobotany Database Experimental Farm Network Herbal Reality Mt. Sinai Medicinal Medicinal Herb Database NIH/NCCIB- National Institute of Health-National Center for Complementary and Integrative Health

Thank you for joining us on this journey through the gardens, we hope you enjoyed it, and come back soon!

Sincerely,

Old Stone House of Brooklyn at JJ Byrne Playground & Washington Park