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Witch Hazel

We are fortunate in Missouri to have two native species of witch hazel, one of which was in full bloom the first week of December this year. Members of the Hamamelidaceae family, witch hazels are deciduous shrubs or small trees generally noted for good fall leaf color, but particularly for the odd times of year at which they bloom. The generic name *Hamamelis* is derived from the Greek words “hama” (at the same time) and “melon” (apple). This may refer to the fact that flowers and fruit are present at the same time on plants in this genus. The common name comes from the old English “wice” or “wyce” (pliant) and “hazel” (diving rod or witching stick for finding water). There is some possible confusion about the common name “witch hazel”, which was originally used in England to refer to *Ulmus glabra*, the Scotch Elm because its branches were preferred for dowsing. Today, the word “hazel” is most strongly associated with plants in the genus *Corylus*, which produce hazel nuts (filberts). While the leaves of witch hazels bear a remote resemblance to those of plants like our native American hazel nut (*Corylus americana*), the latter is in the birch family (Betulaceae), not Hamamelidaceae.

There is a considerable body of lore describing the medicinal properties of witch hazel. Extracts and distillates of bark are generally thought to have anti-inflammatory and astringent properties. In herbalist writings, witch hazel extract is often mentioned as a treatment to stop internal bleeding or to reduce swelling from bruises, sprains or insect bites. Native Americans in Missouri apparently used a concentrated bark extract as a liniment to keep the legs of young athletes limber. Witch hazel extract is an ingredient in some modern hemorrhoid treatments.

Hamamelis species native to Missouri



Hamamelis virginiana (Common Witchhazel).
Photo courtesy of Christopher Starbuck.

Hamamelis virginiana (Common Witchhazel)

Common witchhazel can reach a height of 25 feet, forming a rounded crown with interesting branch architecture. The plant tolerates dryness but grows slowly. It grows best in sun or partial shade and in light, moist soil. The fragrant flowers are produced in late fall to early winter and have strap-like, crumpled yellow petals about ½ inch long. Fall leaf color can be an excellent, clear yellow.

Hamamelis vernalis (Vernal or Ozark Witchhazel)

Vernal Witchhazel is a dense, upright shrub growing to 10 feet tall. It can be used in screens or windbreaks, or as a specimen. The plant can be grown in sun or shade. The yellow to red flowers with ½-inch, strap-like petals are produced in late winter to early spring. Leaves on new growth are purplish and fall color is usually outstanding golden yellow. *H. vernalis* prefers moist soil but is somewhat more adaptable than *H. virginiana*, tolerating higher pH and clay soils fairly well.

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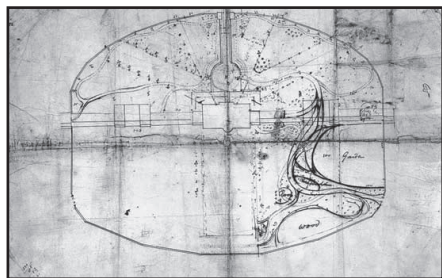
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Will They Garden?

With the inauguration of Barack Obama as the 44th President of the United States, people are dreaming, hoping, and speculating about the future of our country and his first term in office. As the country prepared for his inauguration, many discussed the parties, parades, and the first months the Obama's will experience in the White House. One question I had not heard until recently is "will they garden?" It may seem a trivial question in the face of the many important responsibilities the position of President holds, but in looking back at our nation's history, it has been both a cherished pastime and important means of inspiring and communicating with the American people.

Although the desire and initial purchase for the White House gardens began with President Washington, it was John Adams who ordered the planting of the first garden. President Thomas Jefferson is often noted as the first to speak of the direct relationship between gardening and good citizenship. He once commented to John Jay, "Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, and they are tied to their country and wedded to its liberty and interests by the most lasting bands" (23 August 1785). Upon entering office, Jefferson developed plans for a complete redesign



President Jefferson developed these plans between 1802 and 1805, calling for eight acres around the mansion to be fenced off for gardens, with the remaining land to be left open for grazing. Photo courtesy of the Library of Congress.

of the garden. He started the tradition of planting trees with the installment of hundreds of seedlings. He chose the location for the flower garden, the fences and the walls that were later



By the end of the 1800s, the greenhouses kept at the White House had grown larger than any single floor of the mansion. What started with President Jackson's Orangery on the east side of the garden had spread to the west side and to West Executive Avenue. Photo courtesy of the Library of Congress.

installed according to his plans.

President John Quincy Adams developed the flower gardens from Jefferson's plans. He was also the first to plant ornamental trees, in addition to the fruit trees, herbs and vegetables he enjoyed planting and tilling himself.

Although described as being "little interested in horticulture," President Andrew Jackson became a notable supporter of the burgeoning White House garden. His contributions included the planting of several new trees including elm, maple, sycamore; and flowering magnolias that still bloom in the gardens to this day. He also had an orangery installed to foster year-round indoor gardening.

After the inauguration of President Theodore Roosevelt, Edith Roosevelt designed and installed a colonial garden. It was replaced by Ellen Wilson (first wife of Woodrow Wilson) in 1913 with a rose garden. The West Garden has been known as the Rose Garden ever since.

It was at this time, during World War I, that the gardens and landscape of the White House were used to communicate social messages to the American people. White House Maid



During World War I and until 1920, sheep grazed the White House lawns to reduce groundskeeping costs, and their wool was auctioned to raise money for the Red Cross. Photo courtesy of the Library of Congress.



During World War I and until 1920, sheep grazed the White House lawns to reduce groundskeeping costs, and their wool was auctioned to raise money for the Red Cross. Photo courtesy of the Library of Congress.

sheep were fleeced of almost a hundred pounds of raw wool."

Conservation and encouraging citizens to provide for its citizenry was

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also the strong message of President Franklin D. Roosevelt and his wife Eleanor during World War II. They participated with government and private groups to promote Victory Gardening as a means of addressing food scarcity at home and abroad and conserving fuel for the war effort. Eleanor Roosevelt's White House Victory Garden generated positive press and impressive results. It was estimated that by the end of the war 20 million gardeners had produced up to 40% of the nation's total food production. During his presidency, Roosevelt also commissioned Fredrick Olmsted Jr. to redesign the gardens. This plan still serves as the reference for the layout of the gardens today.

President Kennedy had the Rose Garden redesigned as a venue for outdoor ceremonies and the East Garden designed to display both seasonal flowers and hedges. Lady Bird Johnson (Wife of Lyndon Johnson) installed the first Children's Garden. The South lawn now boasts room for 1,000 people and hosts annual events like the Easter Egg Roll as well as Presidential Speeches and Ceremonies.

What will the Obama's contribute to the garden? What advice might Presidents of the past offer President Obama? With rising fuel and food prices, a growing number of Americans have many ideas and a growing movement. Roger Doiron, a kitchen gardener in Scarborough, Me., and founder of nonprofit Kitchen Gardeners International, is urging President Obama to replant a large organic Victory Garden on the White House lawn. His Website, "Eat the View" (www.eattheview.org) is a place where



Some victory gardeners proudly displaying their vegetables. Taken in 1942-1943.. Photo courtesy of the Library of Congress.

people can record their visions and ideas for the President's contribution to the White House grounds.

"This would not be a quaint little garden for the White House chef," Doiron said. "I have something fairly ambitious in mind, that would make a powerful political statement — a garden large enough to cover most of what the White House needs, with an overflow to a local food pantry."

Eat the View's Website has over 950 members who have signed petitions, shared testimonials and spread the word on sites like Facebook, YouTube, and The New York Times. According to the last National Gardener's Association Survey, an estimated 25 million households participated in vegetable

gardening in 2007 with over \$1.4 billion dollars spent.

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Did you Know?

In 1994, a fungus killed most of the roses in the White House Garden. The garden was dressed with artificial roses until new blooms grew.

(WWW.FACTROPOLIS.COM)

2009: The Year of Nicotiana

Each year the National Garden Bureau selects one flowering plant to showcase based on its desirable characteristics. To be considered, the plant must be easily grown from seed, widely adaptable, genetically diverse and versatile as an ornamental plant. This year's choice is *Nicotiana*, or flowering tobacco.

Nicotiana is a flowering annual that fills the summer garden with brightly colored, trumpet-shaped blooms that attract butterflies and hummingbirds. The blossoms open at the end with a five-pointed, star-shaped flower that come in shades of red, pink, purple, green and yellow. Older *Nicotiana* species are valued for their impressive stature and sweetly-scented flowers that open in early evening. Newer hybrids offer smaller, more compact plants with abundant flowers that bloom throughout the summer.

The genus *Nicotiana* belongs to the large and diverse *Solanaceae*, or Nightshade family which includes many important edible and ornamental plants. Its closest ornamental relative is the petunia and it is also related to tomatoes, peppers, eggplants and potatoes. The genus name was designated by Linnaeus in 1753 to honor Frenchman Jean Nicot, ambassador to Portugal from 1559-1561 who brought powdered tobacco to France to cure the Queen's son of migraine headaches. Many *Nicotiana* species names refer to a characteristic of the plant. For example, *Nicotiana alata* (the species to which many modern cultivars belong) gets its name from the Latin *alata*, meaning "winged", for the winged petioles of the leaves. It is native to tropical South America.

The history of flowering tobacco is overshadowed by the well-documented travels of smoking tobacco (*Nicotiana tabacum*) from the New World to cultures around the globe. *Nicotiana alata* was introduced into garden cultivation in the United States and England in the early 1800's where it was prized for its white, highly-scented flowers that opened at night. In Victorian times another species of nicotiana (*Nicotiana sylvestris*) was

planted along walkways and paths so that those strolling by could enjoy the sweet fragrance of its flowers.

Early 20th century garden writer Louise Beebe Wilder described nicotiana as a "poor figure by day ... but with the coming of the night the long creamy tubes freshen and expand and give forth their rich perfume and we are then glad we have so much of it..." The poet Millay wrote "Where at dusk the dumb white nicotine awakes and utters her fragrance in a garden sleeping."

It appears that nicotiana fell out of favor with many gardeners because older cultivars produced tall plants reaching up to 5 feet in height which often needed to be staked or supported to keep them looking nice in the garden. Newer hybrids have been developed to stay around 12 to 18 inches tall making them much more versatile in the garden.

The semi-dwarf 'Nicki' series is only 16 to 18 inches tall and produces red, white, rose or lime green flowers. In 1979, 'Nicki Red' was the first nicotiana to win an All-America Selections® award and offered gardeners shorter, uniform height and good weather tolerance in addition to plants that bloomed from spring to fall.

Even shorter is the 'Saratoga' series which features compact plants only 10 to 12 inches tall. 'Saratoga' blooms early, has a light evening scent, and is available in seven different colors and two mixtures including lime green, deep rose, white, pink and a purple bicolor.

'Tinkerbell' (*Nicotiana x hybrida*) is another ornamental tobacco that appeals to the gardener looking for something very different. The dusky rose petals face outward from long green trumpets for a unique color combination. In the center of each flower is the remarkable blue pollen. The medium-sized plants grow to 3 feet and bloom throughout the summer.

Many of the new garden hybrids come from the group *Nicotiana x sanderae* including the 2006 All-America Selections® Award winning 'Perfume Deep Purple.' Its beautiful, 2-inch long,

deep purple flowers hold their color well and give off a nice light fragrance in the evening. This medium-sized plant reaches about 20 inches tall and up to 18 inches wide.

The 'Domino' series is an intermediate-sized nicotiana available in 13 colors with upward facing flowers in red, white, crimson pink, lime green, and bicolors with white center eyes or colored margins. Plants bloom early and reach a mature height of 12 to 18 inches.

'Avalon Bright Pink' won both the 2001 All-America Selections® award and the European Fleuroselect Gold Medal for its attractive bright pastel pink flowers that stand out in the garden. The very dwarf plants reach a mature height of only 10 inches and spread up to 12 inches making them ideal for borders and containers.

The always-popular 'Sensation Mix' is a dependable variety with fragrant flowers in shades of pink, red, and white that stay open all day into the evening. Taller than many of the hybrids, this variety reaches 2.5 to 3 feet tall.

Nicotiana grows best in full sun in average, well-drained soil but will tolerate light shade. Plants are easy to start from seed, but the very tiny size of the seed makes seedling production a bit challenging. Most gardeners opt for started transplants readily available from lawn and garden retailers. Select healthy, compact plants with green leaves. Avoid plants that show signs of yellowing which may indicate a problem with the roots or nutrition problem.

Nicotiana should not be planted outdoors until after the danger of frost has passed. The mature size of the plant determines the correct spacing. Allow 6-12 inches between the shorter nicotiana hybrids and 18-30 inches for tall cultivars.

Nicotiana has been developed to require minimal care but it performs best with regular watering throughout the growing season. Plants growing in containers will appreciate fertilizing with a balanced, water-soluble fertilizer applied at regular intervals. Nicotiana is self-cleaning and does not need to have

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the old flowers removed in order for new flowers to form.

Newer hybrids of nicotiana are relatively free of insect and disease problems. Aphids and spider mites like to settle on the sticky glands of the plants and tobacco mosaic virus and powdery mildew have been known to attack its foliage. Other diseases such as stem and root rots are rarely serious and can be controlled by proper site selection and planting.

Nicotiana is underused in modern gardens. The new hybrids offer more compact plants that fit into smaller garden beds and grow well in containers. Their flowers stay open during the day and

some even have the pleasant fragrance that many gardeners associate with the older varieties. Available in a wide color range hybrid nicotiana will complement any garden design and color pallet. Its easy care is perfect for today's busy lifestyle.

For those who like more intense fragrance, the older, heirloom types are a must even though they require a bit more care. Plant scented types near a window or door so their fragrance can be enjoyed on a warm summer evening. Nicotiana flowers can be cut and used indoors; the strongly-scented types can perfume a room. Whether you desire nicotiana for its pleasing scent, its colorful blossoms,

or its ability to attract butterflies and hummingbirds, growing nicotiana is a great way to satisfy your flower garden cravings.

Special note: A close relative of smoking tobacco and a member of the Nightshade family, nicotiana plants contain nicotine and should be considered poisonous. No part of the plant should be ingested by people or animals.

Credit: National Garden Bureau

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Some cultivars of *H. vernalis* include:

'Carnea' - Red to orange flowers.

'Lombart's Weeping' - Flowers red, pendulous branches. 'Sandra' - The yellow petals are longer than those of the species. The new growth is bronze green to purplish. The fall foliage color is orange to reddish-orange.

'Spring Magic' - A dwarf with a height of about 6 feet and a spread of 5 feet. A Willoway Nurseries introduction.

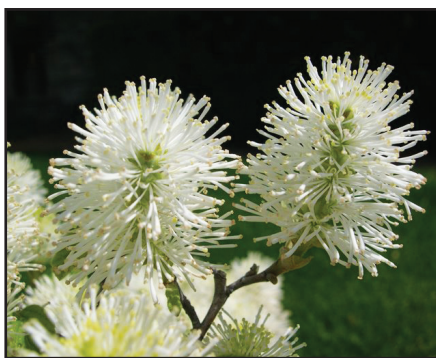
Other interesting plants in the Hamamelidaceae

Two non-native landscape plants that have some charming features in common with witch hazels are Persian parrotia (*Parrotia persica*) and Fothergilla



Hamamelis vernalis (Vernal or Ozark Witchhazel).
Photo courtesy of Christopher Starbuck.

(*Fothergilla gardenii*). Persian parrotia is a tree which grows to 40 feet with beautiful exfoliating bark. It is interesting in that, like *Hamamelis vernalis*, it blooms in very early spring. The flowers are unusual, in that they have no petals, only tufts of reddish anthers. Fothergilla is a



Fothergilla gardenii. Photo courtesy of Christopher Starbuck.

3-foot shrub which also blooms in early spring. Its flowers are 1-inch spikes of pure white filaments with tiny yellow anthers at their tips. Leaves of fothergilla bear a strong resemblance to those of *Hamamelis vernalis* and they often have a spectacular reddish orange fall color characteristic of the family.



Parrotia persica. Photo courtesy of Christopher Starbuck.

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- Monograph on witch hazel by Steven Foster -- <http://www.stevenfoster.com/education/monograph/witchhazel.html>
- Witchhazel cultivar descriptions from Ornamental Plants plus 3.0, Michigan State Univ. and Michigan Nursery and Landscape Association at <http://www.msue.msu.edu/msue/imp/modzz/masterzz.html>

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February Gardening Calendar

Ornamentals

- **Weeks 1-4:** Water evergreens if the soil is dry and unfrozen.
- **Weeks 1-4:** Inspect summer bulbs in storage to be sure none are drying out. Discard any that show signs of rot.
- **Weeks 1-4:** Take geranium cuttings now. Keep the foliage dry to avoid leaf and stem diseases.
- **Weeks 2-4:** Sow seeds of larkspur, sweet peas, Shirley poppies and snapdragons where they are to grow outdoors now. To bloom best, these plants must sprout and begin growth well before warm weather arrives.
- **Weeks 2-3:** Seeds of slow-growing annuals like ageratum, verbena, petunias, geraniums, coleus, impatiens and salvia may be started indoors now.
- **Week 4:** Dormant sprays can be applied to ornamental trees and shrubs now. Do this on a mild day while temperatures are above freezing.
- **Week 4:** Start tuberous begonias indoors now. "Non-stop" varieties perform well in this climate.

Vegetables

- **Weeks 1-4:** Season extending devices such as cold frames, hot beds, cloches and floating row covers will allow for an early start to the growing season.
- **Weeks 1-4:** Start onion seeds indoors now.
- **Weeks 1-4:** Run a germination test on seeds stored from previous years to see if they will still sprout.
- **Weeks 1-4:** Don't work garden soils if they are wet. Squeeze a handful of soil. It should form a ball that will crumble easily. If it is sticky, allow the soil to dry further before tilling or spading.
- **Weeks 2-4:** Sow celery and celeriac seeds indoors now.
- **Weeks 3-4:** Sow seeds of broccoli, cauliflower, Brussels sprouts and cabbage indoors now for transplanting into the garden later this spring.
- **Weeks 3-4:** If soil conditions allow, take a chance sowing peas, lettuce, spinach and radish. If the weather obliges, you will be rewarded with extra early harvests.

Fruits

- **Weeks 1-4:** Check fruit trees for tent caterpillar egg masses. These are laid on twigs in tight clusters that resemble an oblong brown lump of gum wrapped around the stem. Prune off these twigs or destroy the eggs by scratching off the clusters with your thumbnail.
- **Weeks 1-4:** Inspect fruit trees for tent caterpillar egg masses. Eggs appear as dark brown or gray collars that encircle small twigs. Destroy by pruning or scratching off with your thumbnail.
- **Weeks 1-2:** Collect scion wood now for grafting of fruit trees later in spring. Wrap bundled scions with plastic and store them in the refrigerator.
- **Weeks 3-4:** When pruning diseased branches, sterilize tools with a one part bleach, nine parts water solution in between cuts. Dry your tools at day's end and rub them lightly with oil to prevent rusting.
- **Weeks 3-4:** Begin pruning fruit trees. Start with apples and pears first. Peaches and nectarines should be pruned just before they bloom.

Miscellaneous

- **Weeks 1-4:** When sowing seeds indoors, be sure to use sterile soil mediums to prevent diseases. As soon as seeds sprout, provide ample light to encourage stocky growth.
- **Weeks 1-4:** Repot any root-bound house plants now before vigorous growth occurs. Choose a new container that is only 1 or 2 inches larger in diameter than the old pot.
- **Weeks 1-4:** To extend the vase life of cut flowers you should: 1. - Recut stems underwater with a sharp knife. 2. - Remove any stem foliage that would be underwater. 3. - Use a commercial flower preservative. 4. - Display flowers in a cool spot, away from direct sunlight.