Native Plant School is a partnership between Shaw Nature Reserve, Grow Native! and Wild Ones Natural Landscapers. Classes are held in the Whitmire Wildflower Garden at Shaw Nature Reserve.

Please register at shawnature.org/NPS

Garden Archaeology in the Whitmire Wildflower Garden

While digging in a soon-to-be garden area at the southeast corner of the Joseph H. Bascom House, horticulture staff and Native Plant School students dug up a plethora of historic objects. Mostly glass, ceramic earthenware shards, but also sawn bone fragments, a tooth, metal nails and other hardware and a single ceramic marble. Joe Harl of the Archaeological Research Center of St. Louis, Inc. sheds light on several of the objects we unearthed...

Lea & Perrins Worcestershire bottle fragments. Worcestershire is one of the oldest commercially produced condiments sold in the U.S. John Wheeley Lea and William Henry Perrins began producing Lea and Perrins Worcestershire Sauce from their plant in Cheltenham, England in 1837. They encouraged sales by paying stewards of ocean liners to serve their sauce in their dining rooms. In 1839, a New York entrepreneur, John Duncan, ordered a small quantity, which quickly sold out. Demand became so high that Duncan opened a processing plant in the U.S., importing the ingredients from England and using the secret English formula, which continues to be sold today. If it is not marked, this top or stopper was used on various other condiments and medicines during the late 19th century.

Email us with suggestions for 2014 classes.
Cut nails and rounded wire nail.
A machine that produced cut nails was first introduced in the 1780s. This machine drastically reduced the amount of time and cost of producing forged nails. By 1830, the machine had been improved upon, which automatically flipped the metal after every cut, allowing for larger quantities of nails to be produced at less cost. Wire nails were first introduced into the American market from France in the 1850s, but they were not popular because their heads tended to break off and wire nails did not hold as effectively as cut nails. Wire nails finally took over the market by 1890 because in 1885-1886, the cut nail manufacturers were embroiled in a labor strike, so wire nails were the only option available to consumers. Also during the 1880s, the wire nail manufacturers banded together into a cartel, agreeing to lower their prices and use a better grade steel that would not snap as easily. Cut nails nearly dropped out of use by the 1920s.

See what else we found at:
http://www.missouribotanicalgarden.org/Portals/0/Shaw%20Nature%20Reserve/PDFs/horticulture/Garden%20Archaeology%20in%20the%20Whitmire%20Wildflower%20Garden.pdf

July in the Woodland Garden:

The widely-spaced mature oaks of the woodland create a light, open shade that is reminiscent of the original savannahs of this region. The soil is dry, characteristic of upper, ridgetop woodlands in Missouri. Beneath the high canopy of the trees, tall pink phlox (Phlox paniculata) lazily sways in the gentle summer breezes. The scene is punctuated in blue everywhere by tall spires of larkspur (Delphinium exaltatum), clusters of skullcap (Scutellaria incana) and bellflower (Campanula Americana). The last of the white candles of cohosh (Cimicifuga racemosa) in early July give way to familiar pink of coneflowers (Echinacea purpurea). Palm sedge (Carex muskingumensis) offers a pleasant foliar contrast to the asters and goldenrods (Solidago) that will soon be in their fall glory.

Delphinium exaltatum, tall larkspur, pictured at left.
Gardening Tips:

- Expect some leaf fall, a normal reaction to summer drought.
- Continue watering young plantings.
- Prune back any groundcover overhanging curbs or sidewalks.
- Remove diseased plant material (like deformed purple coneflower) by digging entire plant and disposing in trash.

New Native Plant Research Garden:

The Ozark Plateau is home to many plant species never before used in horticulture. The potential to discover new species for gardening is great. Shaw Nature Reserve is committed to broadening gardeners understanding of native plants and how they can contribute to the quality and enhancement of life. Our native plant research garden seeks to uncover new species for landscaping. Since the early 90’s, Shaw Nature Reserve has evaluated and introduced several new Missouri native plants to horticulture, highlighting their multi-seasonal beauty and adaptability in our region. The Native Plant Research Garden was built this spring with the help of volunteers. Many plants have already been propagated, planted and will be evaluated over the next three years.

Native Plant Highlight:

**Slender mountain mint** (*Pycnanthemum tenuifolium*)

This species grows 3’ tall and bears flat flower clusters in July and August. Its white flowers contain abundant nectar and pollen that attracts an amazing number of beneficial insects including many species of butterflies. Slender mountain mint is found in savannas and prairies, even along roadsides and grows in moist to average soil. The leaves of mountain mints have a minty fragrance when crushed and can be used to make a tea. An easy-to-grow perennial for full sun landscapes, it forms an upright, fine-textured bush. In gardens, contrast its fine leaves with larger leaved perennials such as rattlesnake master (*Eryngium yuccifolium*), stiff goldenrod (*Solidago rigida*) and rose mallow (*Hibiscus lasiocarpus*).

Weird Plant Fact:

Did you know that Fibonacci sequences appear in many biological settings, in two consecutive Fibonacci numbers, such as branching in trees, arrangement of leaves on a stem, the flowering of sunflowers, an uncurling fern and the arrangement of a pine cone?

http://www.sciencekids.co.nz/videos/math/numbersofnature.html
Q&A:

Getting ready for a new planting bed this fall? You may be interested in this Q&A from one of our readers.

Question: “If I plan to plant in mid-September when would I want to kill my turf and what method do you recommend?”

Answer: Here are your options:

1. If spraying roundup (that’s what I would do) apply the first of Sept or thereabout.
2. If skimming turf with a spade (very hard work but organic. Use a sharpened spade) this can be done just before planting.
3. If smothering with mulch, cut grass very low with mower or string trimmer (scalp) then add 3-4 layers of newspaper and then 3 inches of mulch (leaf compost works great) now and let it sit there all summer.

Shrubs are an integral part of the overall picture when it comes to creating structure in good garden design. They serve to visually fill the ‘middle ground’ and help to unify the larger structural elements such as the house, patio and trees. Soften the effect of walls or fences with plantings of shrubs. Numerous native shrubs have qualities that include them among the finest of landscape choices.

An excellent performer for woodland gardens is Hydrangea arborescens (pictured above). Large, flat clusters of white flowers lighten up the shade in beginning in June and last for much of the summer. It grows 3’ – 4’ and is tolerant of average soil. This hydrangea works well when planted in masses and is useful for naturalizing. Pruning, while not necessary, can be done in late winter to remove old flower stems and improve the overall appearance. Because of its large leaves hydrangea is perfect for planting with fine to medium textured plants such as ferns, sedges (Carex sp.), Indian pink (Spigelia marilandica) and black cohosh (Cimicifuga racemosa).

I never cease to be amazed by the sheer numbers of butterflies and other insects that visit buttonbush (Cephalanthus occidentalis) each year. In July, hundreds of round, creamy white flowers dangle from this 5’-7’ shrub. Tolerant of drier soils but happiest in moist areas, buttonbush is at the top of the list for rain gardens, at the edge of ponds and for use in low, wet landscapes. It performs best in full to part sun and can be used as a mass planting or singly as a specimen plant. Other wetland species such as copper iris (Iris fulva), orange coneflower (Rudbeckia fulgida) and swamp milkweed (Asclepias incarnata) are wonderful companion plants to include in conjunction with buttonbush.

Another outstanding choice not only for moist soils but for attracting butterflies is spicebush (Lindera benzoin), a 2005 Plant of Merit. In early spring, its fragrant chartreuse flowers can be seen through the leafless woodlands. The aromatic leaves, appearing after the flowers, are the larval food for the spicebush swallowtail butterfly. While spicebush is best suited for open woodlands (light or dappled shade) and moist soil, it tolerates full sun as long as the soil is quite moist. It is also tolerant of drier soil when planted in light shade. Growing 6’ – 12’, spicebush produces red berries (on female plants) that attract many birds.

On warm days in March, a most remarkable spicy scent tempts walkers in the Whitmire Wildflower Garden to discover its source. Down the path and around the corner they realize it comes from a large rounded shrub covered with millions of small, fragrant yellow flowers. It is clove current (Ribes odoratum), a 6’ – 10’, thornless shrub that has an arching habit. Clove currant is often planted as a screen or hedge because it tends to colonize. Birds come to eat its edible, black berries in mid to late summer.