

### Details and Answers to Chat Questions

*Kathie Clements, presenter of Keystone Species of Native Plants*

The plants described during this presentation are generally native to Arlington County and the City of Alexandria in Northern Virginia, and most of them are also indigenous to the Mid-Atlantic Region.

- Viewers from other areas of Virginia will want to look for regional native plant guides. Links to free PDF versions of these guides can be found on the website for the Virginia Native Plant Society at <https://vnps.org/virginia-native-plant-guides/>
- Viewers watching from other states may wish to consult county-level maps at <https://plants.sc.egov.usda.gov/java/> to confirm the presence of the plants in their regions. State native plant societies and local Extension offices should also be able to provide information on locally native species.

### QUESTIONS ON HERBACEOUS PLANTS

#### *Plant Maintenance*

- The **Chelsea Chop** is a type of pruning that limits the height, influences flowering, and can help prevent floppy plants. It is particularly effective for late summer and fall blooming plants including Aster, Coneflower, Goldenrod, Rudbeckia, Helianthus, and Joe Pye. Plants aren't as leggy and often don't need staking. Flowers may be smaller but more numerous because the removal of the top shoots allows for more side branching. The best time to cut back is in late spring or early summer when the plant has lots of leaf and branch growth. Avoid using this technique during dry springs.

There are two ways to cut plants back. **One method** involves cutting  $\frac{1}{3}$  to  $\frac{1}{2}$  of the plant early in the summer. Flowering is delayed, the plant is shorter, and more compact. The **other method** involves cutting back half of the branches which extends flowering later in the season. In either case, the final cutting back should be done no later than early July.

*The Well-Tended Perennial Garden* by Tracy Di Sabato-Aust has an excellent chapter describing this technique in depth.

- **Propagation of native plants.** We have both grown our natives from young plants. Using plugs as starts is an economical and effective way to introduce new plants into the garden. All the plants discussed can also be grown from seed or by division. We are not aware of any free seed distributions locally.

## Native Keystone Plants: Addendum

- The plants discussed in the presentation can be **divided** in the spring when new growth is detected. Refer to Di Sabato-Aust's book for detailed information.
- Native plants **do not need fertilization**. Fertilizing may enrich the soil too much, causing plants to be floppy. It is important to maintain good soil through the addition of organic matter and protecting it with mulch or ground covers used as a green mulch.

### Information About Specific Species

- ***Geranium maculatum*** grows well in average/moist, well-drained soil in sun, part shade or shade. It is tolerant of most soils, preferring humus-rich soils. If the foliage yellows during hot weather, you can cut the plant back to freshen the look. It is a valuable wildlife resource.

**Geranium 'Gerwat' Rozanne** is a patented, sterile hybrid and is not a native plant. This cultivar has a longer flowering time than *Geranium maculatum*. It is noted for having few insect or disease problems. According to the [North Carolina State Extension Toolbox](#), this plant attracts butterflies.

- ***Solidago sphacelata* 'Golden Fleece'** is a compact cultivar and less aggressive than many other species. It is 1-1.5' tall and wide, prefers full sun and dry to average soil. It can be massed to form an attractive ground cover. It is also great in containers. It is a host plant for Wavy-lined Emerald larvae, attracts butterflies, and birds. It was introduced by Mt Cuba. More information can be found on the [North Carolina State Extension Toolbox](#).
- ***Solidago rugosa* 'Fireworks'** is a valuable cultivar that attracts butterflies, pollinators, bees, and other beneficial insects. Songbirds eat the seeds.
- It is often tricky to **determine species of *Solidago***, requiring careful observation of leaves, stem colors, and flower configuration. These resources may help you narrow down the species:
  - iNaturalist
  - [Article](#) from Virginia Native Plant Society that discusses distinguishing characteristics of the various *Solidago* species
  - *Manual of Vascular Plants of Northeastern United States and Adjacent Canada* by Gleason and Cronquist
- ***Rudbeckia hirta*** or Black-eyed Susan is an excellent native plant. It is the host plant for Lepidoptera, nectar source for bees, butterflies, insects, and provides seeds for birds.

## Native Keystone Plants: Addendum

- **Plantain-leaf Sedge** will not tolerate foot traffic. **Pennsylvania Sedge** can take only minimal foot traffic. We suggest using it as a ground cover with stepping stones set in a path for passage. This sedge can be mowed one to two times a season at 3 to 4 inches high, but we recommend leaving the plant natural to enjoy its lush appearance.
- **Sedges are a good replacement for liriopse.** Consider *Carex blanda* (Eastern Woodland Sedge), *Carex pennsylvanica* (Pennsylvania Sedge) or *Carex texensis* (Texas Sedge) or *Carex plantaginea* (Plantain-leaf Sedge).
- The **native sunflowers** discussed in the presentation are similar in their growth habits. **Woodland Sunflower** is a bit shorter, 2-7' tall, than **Narrow-leaved Sunflower** which grows 5 -8' tall. The height can be managed by cutting back by half in the late spring/early summer.
- A participant on the chat shared the experience of converting a grassy area to **violets**. The violets self-seeded and any unwanted plants were easily dug up. 20 plants were needed for a 15x20' area.

### *Landscaping Ideas for the Keystone Herbaceous Plants*

- **Plants for Groundcovers:** White Wood Aster, Gray Goldenrod, Pennsylvania Sedge, Plantain-leaf Sedge, Violets, Wild Geranium.
- **Plants for Shade:** White Wood Aster, Pennsylvania Sedge, Plantain-leaf Sedge, Common Blue Violet, Yellow Violet, Wild Geranium (light shade), Blue-stemmed Goldenrod (light shade).
- **Plants for Part-Shade:** Rough-stemmed Goldenrod, Gray Goldenrod, Blue-stemmed Goldenrod, New England Aster, Aromatic Aster, Blue Wood Aster, White Wood Aster, Woodland Sunflower, Coastal Joe Pye Weed, Pennsylvania Sedge, Plantain-leaf Sedge, Common Blue Violet, Yellow Violet, Striped Violet (dappled sun to light shade), Wild Geranium, Orange Coneflower.
- **Plants for Sun:** Rough-stemmed Goldenrod, Gray Goldenrod, Blue-stemmed Goldenrod, New England Aster, Aromatic Aster, Blue Wood Aster, Narrowleaf Sunflower, Coastal Joe Pye Weed, Pennsylvania Sedge (once established), Common Blue Violet, Orange Coneflower.

## Native Keystone Plants: Addendum

- **Pennsylvania Sedge** is an **evergreen** herbaceous plant. **Cardinal Flower**, another keystone plant mentioned during the presentation, develops a low rosette of 2 to 6” long leaves that remains evergreen throughout winter.

### *Cultivar vs Native Cultivar*

- There is no simple answer to the **native vs native cultivar** debate. Annie White’s research at the University of Vermont (2016) paired straight native plants with cultivars. About half of the cultivars in the study were less attractive to pollinators while the other half were equal to the native partner. Plants that were significantly different, such as the double flowers of *Echinacea purpurea* ‘Double Pink Surprise’, attracted far fewer pollinators. Her work indicates that the closer the color of the flower, the size of the plant, and the form of the cultivar to the straight native plant, the more likely that pollinators will be attracted to the plant. There is some indication that selecting cultivars that bloom at the same time as the native is beneficial. White recommends that each cultivar should be evaluated on its own merits to determine if it is an appropriate substitution for the native plant.
  - You can hear White discuss her findings in a [talk](#) to the Massachusetts Native Plant Society.
  - Annie White [interview](#) with Kim Eiermen on EcoBeneficial, “Native Cultivars vs. Native Plants with Annie White”
  - Annie White [interview](#) with Kim Eiermen on EcoBeneficial “Nectar Collection and Analysis.”

Keith Nevison, graduate student of Deborah Delaney at the University of Delaware, compared insect attraction, nectar, and floral characteristics in Eastern Phlox and cultivars. He found that flower structure strongly influenced insect attraction. He agrees with White that cultivars need to be assessed individually to determine if they are equal replacements for natives. [Read](#) more about his work.