

## Answers to Chat Questions

*Elaine Mills, presenter of “Native Spring Ephemerals”*

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In response to a question about what makes **plants able to tolerate the shade**:

Shade-tolerant plants have various adaptations that allow them to function in low-light levels.

- They have larger leaves to expose more chlorophyll to light.
  - Leaves may be broader and thinner to catch more light in relation to the energy used in producing the leaf.
  - Leaves are often a deeper green as a result of their higher levels of chlorophyll.
  - They can capture and make efficient use of low levels of light.
  - They are more efficient at nutrient uptake.
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In response to a question regarding **the best time to plant ephemerals**:

Early spring or early fall are possible times to plant them, and there are advantages to each.

- Ephemeral seedlings are available in the spring, but they may not flower immediately.
- In early fall, the soil is still warm, allowing roots to establish before winter.
- Ephemerals in bare root form (dormant, without soil) are best planted in fall, so they can have a chance to go through the cold phase of their life cycle during which they develop stems, leaves, and flower buds.

To confirm what was stated during the presentation, **two-leaved plants of Mayapple** (*Podophyllum peltatum*) are the only ones that will produce flowers. A single-leaved Mayapple stem is considered an immature plant that has not yet the reproductive stage and does not have the energy to flower.

**Wake-robin** and Stinking Benjamin are two alternative common names for *Trillium erectum*. The plant is also known as Red Trillium, Purple Trillium, and Bethroot.

In answer to the question about the presence of **Hepatica species in Northern Virginia:**

- There are two species of Hepatica native to Virginia.
- Per the [Digital Atlas of the Virginia Flora](#), Sharp-lobed Hepatica (*Hepatica acutiloba*) is frequent to locally common in the southern half of the mountains and infrequent to rare in the northwestern part of the state. The county furthest north in its range is Rappahannock County.
- According to same source, Round-lobed Hepatica (*Hepatica americana*), is common in the mountains and Piedmont. Its native range includes all of Northern Virginia.

**Meadow Anemone** is one of common names of *Anemone canadensis* (Canada Anemone) discussed during the presentation.

- Other common names of the plant include Round-headed Anemone, Round-leaf Thimbleweed, Windflower, and Crowfoot.
- There are multiple **options for controlling this aggressive plant** if you decide not to remove it completely:
  - Regularly lift and divide plant clumps in the fall to prevent excessive spread.
  - After blooming, deadhead spent flowers to keep them from producing and disseminating their seed.
  - Install a deep barrier, such as garden edging, to contain the rhizomes and prevent spread into unwanted areas.
  - Allow the plant to spread only in selected areas of the garden.

**Marsh Marigold** (*Caltha palustris*) and **invasive Lesser Celandine** (*Ficaria verna*) are both yellow-flowered plants that bloom in the spring. Use this information to tell them apart:

- MM can grow up to 2 feet tall, while LC forms dense, low-growing mats.
- MM grows in clumps, while LC spreads by bulblets and tubers.
- Both have glossy heart-shaped leaves, but those of MM have finely toothed edges.
- MM has no petals and 5, large, round sepals. LC has 7-12 yellow, elongated, pointy petals and 3 green sepals.
- MM grows in damp meadows and wetlands, even in standing water, while LC grows in moist, sandy soil along streambanks.
- Invasive LC may bloom as early as March, while MM blooms in mid-April.



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In response to requests for recommendations of **ephemerals for dry and deep shade**:

According to my research

- Bloodroot (*Sanguinaria canadensis*) tolerates dry soil.
- Twinleaf (*Jeffersonia diphylla*) tolerates heavy shade.
- Hepaticas (*Hepatica spp.*) tolerate somewhat dry conditions.
- Rue-anemone (*Thalictrum thalictroides*) tolerates drought and heavy shade.
- Mayapple (*Podophyllum peltatum*) tolerates drought.
- Large-flowered Bellwort (*Uvularia grandiflora*) tolerates dry soil and drought.
- Although Virginia Bluebells (*Mertensia virginica*) tend to prefer moist to wet soil, I have personally had success growing them in my own dry shade forested garden.
- A participant suggested Canada Anemone (*Anemone canadensis*).
- Some of these plants might also handle **competition from shallow-rooted maple trees**.

Online suggestions for keeping animals from eating bulbs include:

- Plant deeply and tightly pack soil over the bulbs.
- Spray bulbs and plants with repellent designed for rabbits or dip bulbs in cayenne pepper and spread cayenne over the bed of bulbs.
- Add a layer of sharp debris, such as gravel or grit above and below bulbs.
- Lay down a layer of wire mesh on the soil above the bulbs after planting.

An observant participant commented that the **pollen of Spring Beauty is pink**.