Trilliums

by Chrys Gardener, Master Gardener

We native plant enthusiasts in the northeast are blessed with an abundance of early spring wildflowers. Some of the most delicate and charming wildflowers belong to a group known as the spring ephemerals, named for their habit of flowering early and going fully dormant by midsummer. These plants complete their reproductive cycle while there is still ample sunshine dappling the woods, before the leaves on the trees grow to full size and cast deep shade.

One of the most easily recognized flowers, and often the first one learned by amateur wildflower enthusiasts, is the trillium. The name trillium comes from the Latin *tres*, meaning "three", and refers to the symmetrical three petals, three sepals, and three leaves of the trillium. In early spring, usually in late April or early May, rich, undisturbed woods will appear carpeted with thousands of the white or large-flowered trillium, *Trillium grandiflorum*. They are often found flowering in the same areas as other spring ephemerals such as Dutchman's breeches, hepatica, squirrel corn, bloodroot, and creeping blue phlox. All of these plants thrive in mature hardwoods with rich, moist soil and neutral to slightly acid pH.

If you are fortunate, you may also find patches of purple trilliums, *T. erectum*. Perhaps they are more plentiful in other areas of the northeast, but here in the Finger Lakes region I have never seen these in such abundance as the white trillium. I find the common name somewhat misleading, since the flower is actually deep red or maroon. Purple trillium has several other interesting common names, including purple wakerobin, for the timing of its flowering with the arrival of the robins; and stinking Benjamin or wet-dog trillium, for its unpleasant odor. This foul odor actually serves to attract flies and beetles for pollination, since the cold weather often keeps pollinating bees from making the rounds this early.

The third, and perhaps most beautiful, trillium found in our woods is the painted trillium, *T. undulatum*, which is white with a halo of crimson in the center of the flower. This is the most elusive of our native trilliums, and I have seen its striking flower only a few times. Its native habitat is cool, acid woods and swamps.

Trilliums have an interesting way of dispersing their seeds. The fruit is a round capsule on the end of a long stalk, which bends down to the ground as the seeds within are ripening. As the seeds mature, the pressure of their expansion splits the capsule open on one side, and the seeds fall to the ground in clusters. Each seed has a light-colored crest attached to it, which is equal to the size of the seed. This crest is called a strophiole, and ants love to eat it. The ants collect trillium seeds and bring them back to their nests, where they eat the strophioles and discard the seeds, thus dispersing them to different parts of the woods. Ants have been observed to carry trillium seeds as far as thirty feet from the plant.

Trilliums are very difficult to transplant from the wild, so resist the urge to do so and instead buy plants from a reputable nursery, one which propagates trilliums from seeds or by a process called rhizome wounding. This is the fastest and most reliable way to propagate trilliums, and involves cutting a shallow V-shaped groove in the upper length of a trillium rhizome (a thick root-like structure several inches below the soil). If the soil is gently removed from the top of the rhizome, this groove can be cut without disturbing the rest of the plant. Dust the groove with a fungicide, and cover with the removed soil. A full year later, uncover the rhizome again and you should see bulblets that have formed along the wound. Carefully remove the bulblets, replant and water thoroughly, and you should have blooming-size plants in one to two years.

It is also possible to propagate trilliums from seed, although it takes a lot of patience since the plants will not flower for four or five years. Collect seeds when the strophiole (the ant-attracting appendage) has turned from white to russet brown. Often the seeds ripen before the capsule splits, so occasionally pinch open a capsule and check the seeds for ripeness. The seeds should be sown immediately, or stored in damp peat moss and refrigerated until sowing. Sow the seeds

in a shady outdoor seedbed enriched with lots of humus. Keep the seed bed evenly moist throughout the growing season. The seeds will not germinate this first season since they need to overwinter in order to break their dormancy. The following season they will produce a single rudimentary leaf, and should be left undisturbed. The third year they will produce a single ovate leaf, and when the plants go into dormancy in the summer, they can be carefully lifted and moved into containers or a nursery bed. By the fourth year they will produce their characteristic three leaves, and if everything goes well, they will produce another set of leaves and finally a flower in their fifth year.

This spring when you see a glorious patch of trilliums carpeting the woods, remember the role of the ants in helping to spread these plants, plus the five or more years it took each plant to reach flowering size, and give a bow to Mother Nature as the ultimate gardener.