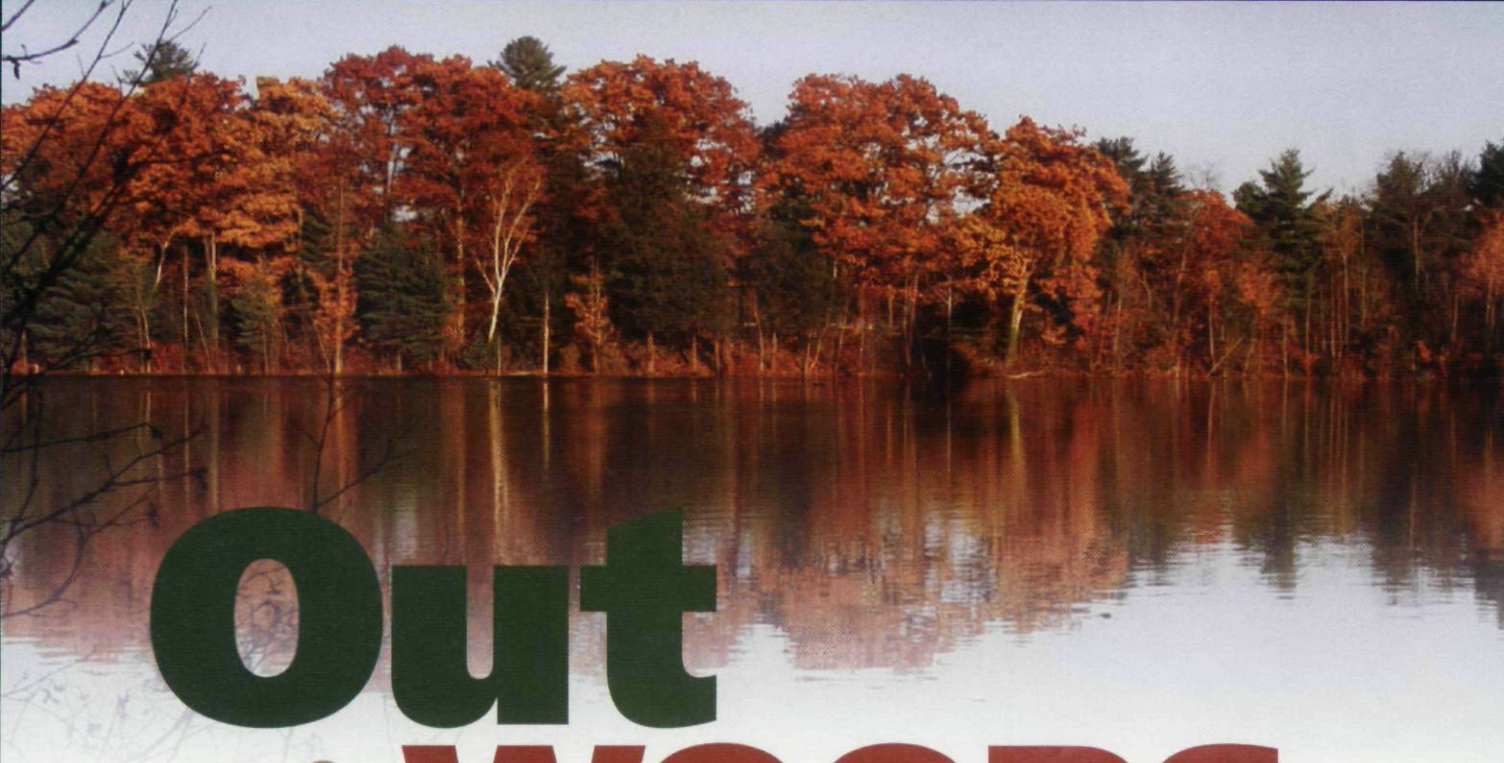


Out of the WOODS

In the past 30 or so years, we have seen a wonderful resurgence in the study of plant ecology and the appreciation of our native species. An interesting phenomenon is that during the early 20th century, native plants were very popular, but as we climbed out of the Great Depression in the late 1930s, there were some major changes in American landscapes that eroded this interest.

Long overlooked, native woodland plants have been gaining popularity and are finding a home in the American landscape.

As suburbs, subdivisions and large corporations became more common, the "natural look" was replaced with more turf, wide expanses of mulch, sophisticated irrigation systems, specimen plants and monocultures, such as large annual plantings. For nearly 50 years, ecological gardening was practically ignored. Beginning with the first Earth Day in 1970 and continuing with influential authors such as Sara Stein, George Schenk, Roger Swain and Ken Druse, America began to embrace its native landscapes once again.

Text and photos by LESLIE VAN BERKUM

Herbaceous perennials found under oaks

Botanical name	Common name
Actaea alba / rubra	white baneberry / red baneberry
Anemone virginiana	thimbleweed
Anemonella thalictroides	rue-anemone
Antennaria neglecta	everlasting
Aquilegia canadensis	wild columbine
Asarum canadense	wild ginger
Aster divaricatus / macrophyllus	aster
Cimicifuga racemosa	black snakeroot
Claytonia virginica	spring beauty
Corydalis sempervirens	rock harlequin
Gaultheria procumbens	wintergreen
Geranium maculatum	wild cranesbill
Hepatica americana	hepatica
Heuchera americana	American alum root
Hydrastis canadensis	goldenseal
Jeffersonia diphylla	twinleaf
Maianthemum canadense	Canada mayflower
Mitchella repens	partridgeberry
Panax quinquefolius	American ginseng
Penstemon laevigatus	beard tongue
Polystichum acrostichoides	Christmas fern
Sanguinaria canadensis	bloodroot
Smilacina racemosa	false spikenard
Tiarella cordifolia	foamflower
Uvularia grandiflora	bellwort
Viola pubescens	downy yellow violet

Anemonella thalictroides

rue-anemone; buttercup family

Light: full to part shade **Height:** 4 to 8 inches
Bloom: May to June **Zone:** 4 to 9
Bloom color: white to pink with yellow centers
Soil: well-drained, pH 6, best to add limestone every one to two years

Has reddish stems and blue-green fernlike foliage. Fine, chinalike blooms persist for four to six weeks. Goes dormant in hot weather; best planted with late-emerging groundcovers. If soil is too wet in summer and fall, *Anemonella* will get crown rot, but tuber will often resprout. Use in drifts under deciduous shrubs next to rocks and with groundcovers, such as *Phlox stolonifera*. Fall planting is best; to propagate, sow seeds fresh, but plants take three years to bloom.

Hydrastis canadensis

goldenseal; buttercup family

Light: part shade
Height: 8 to 15 inches
Bloom: May **Zone:** 5 to 7
Bloom color: white
Soil: moist, slightly acidic to neutral

This herb was overcollected for medicinal purposes in the 19th century. It is slow to re-establish and is not found commonly due to suburban development. Twin, maplelike leaves are held horizontally, making it a good groundcover. Golden-colored rhizomes root along length; to propagate, divide rhizomes when dormant or layer half pieces in sandy loam in moist area. Raspberrylike fruits held in center of leaves are unusual and ornamental. Tolerates some dry conditions, but goes dormant if too dry. Voles love to eat roots.

Sanguinaria canadensis

bloodroot; poppy family

Light: part shade
Height: 6 to 9 inches
Bloom: April to May **Zone:** 3 to 9
Bloom color: white
Soil: moist and well-drained

Choice groundcover with large, rounded, deeply lobed leaves. Foliage persists until August unless ground dries out, and it can be a striking groundcover. Lovely pure white flowers emerge from curled leaves, which are amazing to watch. Flowers last only a few days. Knobby red rhizomes have sap that resembles blood. To propagate, break rhizomes in fall and replant one-half-inch down and tilted in the soil. Chief problem is stem rot where *Sanguinaria* loses its leaves. Try less mulch and a grittier soil. A sterile double form is occasionally available, originally found in Michigan.

Jeffersonia diphylla

twinleaf; barberry family

Light: part shade
Height: 10 to 12 inches (taller when in fruit)
Bloom: May **Bloom color:** white **Zone:** 5 to 7
Soil: high organic content with neutral pH

Named after our third president, Thomas Jefferson. Clump former, with leaf blades that are divided in half and resemble butterflies. Blue-green foliage color. Blooms early, but flowers for a short time. Divide with sharp pruning tools in early fall, or dig up seedlings. Also easy from seed after the urnlike pods turn yellow: sow fresh and make sure they don't dry out.

Herbaceous perennials found under beech, maple, hemlock

Botanical name	Common name
Actaea alba / rubra	white baneberry / red baneberry
Adiantum pedatum	maidenhair fern
Asarum canadense	wild ginger
Athyrium filix-femina	lady fern
Cornus canadensis	bunchberry
Dicentra cucullaria	Dutchman's breeches
Heuchera americana	American alum root
Maianthemum canadense	Canada mayflower
Mitchella repens	partridgeberry
Polystichum acrostichoides	Christmas fern
Smilacina racemosa	false spikenard
Tiarella cordifolia	foamflower
Trillium grandiflorum	great white trillium
Uvularia grandiflora	bellwort

Very handsome fern with wiry, dark stems and unusual fronds that fork in two, then spread like fingers on a hand. Early to rise in spring, and short creeping to form large clumps. To propagate, lift and divide rhizomes (they have lots of eyes) and plant just under soil surface. Several different species found in New England, including *A. aleuticum* and *A. veratrum*.

Trillium grandiflorum

great white trillium; lily family

Light: shade to partial shade
Height: 12 to 18 inches
Bloom: May to June
Bloom color: white
Zone: 4 to 7
Soil: pH of 6 to 7, moist, well-drained

Long-lived; forms large colonies under deciduous canopies. Distinctive trio of broad leaves in a whorl. White flowers have three large petals and age to a soft pink. *Trillium* is often dug from the wild but shouldn't be; it takes five to seven years in a nursery from seed to flowering plant. To propagate, divide rhizomes and plant 3 to 5 inches deep or poke seeds around in shallow holes. There is a lovely variety from the Blue Ridge Mountains called *roseum*, being propagated by the New England Wild Flower Society.

Adiantum pedatum

maidenhair fern; polypody family

Light: part shade
Height: 12 to 24 inches
Bloom: inconspicuous
Zone: 2 to 8
Soil: organic and well-drained alkaline

Players in the landscape. It is rewarding to see an increased number of professionals incorporating native plants and ecological practices into their own gardens, as well as their clients' gardens. In this article, I will highlight a few woodland gems that are native to the northeastern US. I have selected them because they are plants we are often asked about at our wholesale nursery in Deerfield, NH. What makes them happy? What are good companions? How can I propagate them in a garden setting (versus nursery propagation facilities)?

First, I would like to put these native woodlanders in some kind of context because alone they are a very tiny slice of the natural world around us. The obvious context is their habitat, those climatic conditions — temperature, soil type and moisture — that make up their environment. Most of these gems are woodland plants, best suited under deciduous or hardwood forests. A couple of them would do well in a woodland edge, which is a bit sunnier, and some will thrive on water's edge. But let's look at a larger picture.

Think about the woods that you may have walked through recently. Were they

Herbaceous perennials found under gray birches

Botanical name	Common name
Anaphalis margaritacea	pearly everlasting
Aster cordifolius	bluewood aster
Dryopteris marginalis	leatherwood fern
Fragaria virginiana	Virginia strawberry
Prunella vulgaris	self heal
Solidago bicolor	white goldenrod

Dryopteris marginalis

leatherwood fern; polypody family

Light: shade or part shade
Height: 15 to 18 inches
Bloom: none **Zone:** 2 to 8
Soil: humus-rich

Evergreen, with bluish green leaves, nice dark color. Leaves mat to the ground in spring, but this helps lessen erosion. Sori located at leaf margins, thus the name *marginalis*. Makes a large, clump-forming specimen that is very easy to grow.

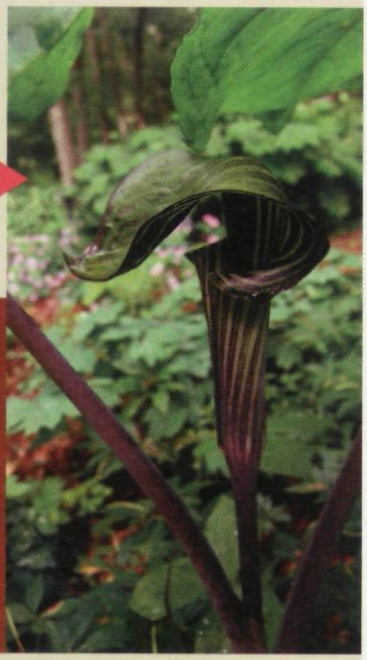
Herbaceous perennials found in hemlock ravine

Botanical name	Common name
Actaea alba / rubra	white baneberry / red baneberry
Adiantum pedatum	maidenhair fern
Aquilegia canadensis	wild columbine
Arisaema triphyllum	Jack-in-the-pulpit
Asclepias incarnata	swamp milkweed
Campanula rotundifolia	bluebell
Cornus canadensis	bunchberry
Dicentra cucullaria	Dutchman's breeches
Erythronium americanum	yellow trout lily
Eupatorium purpureum	Joe Pye weed
Mitchella repens	partridgeberry
Onoclea sensibilis	sensitive fern
Polygonatum biflorum	small Solomon's seal
Polystichum acrostichoides	Christmas fern
Potentilla tridentate	three-toothed cinquefoil
Smilacina racemosa	false spikenard
Streptopus roseus	twisted stalk
Trillium erectum / grandiflorum	wake robin / great white trillium
Uvularia grandiflora	bellwort

Arisaema triphyllum

Jack-in-the-pulpit; arum family

Light: shade, part shade
Height: 18 to 30 inches
Bloom: May to June
Bloom color: purple and green
Zone: 4 to 8
Soil: rich and moist



Forms a nice groundcover with large, paired three-parted leaves. Also can be a nice specimen plant. Unusual flowers made up of a hooded spathe (pulpit) and a spadix (preacher) inside. Male and female flowers are on the same plant but are not fertile at the same time. Best to plant in fall. *A. triphyllum* grows from a corm. Often cooked and eaten by Indians, hence another common name, Indian turnip. Note: Poisonous if raw. To propagate, break off the offsets that form on edge of corm, and replant 4 to 6 inches deep.

Actaea rubra

red baneberry; buttercup family

Light: part shade
Height: 24 to 48 inches
Bloom: May to June
Bloom color: white
Zone: 3 to 7
Soil: rich and moist

Forms a large, handsome clump with divided, ferny foliage. Flowers are brushlike and become beautiful, but the berries are poisonous. Hard to divide because rootstalks are swollen and tough. Try scattering berries and lightly raking them into soil. Similar variety, *A. pachypoda* (doll's eyes) often found with *A. rubra* in wild. If soil is too wet or dry, foliage will decline, but usually the plant will survive.

Something about soil

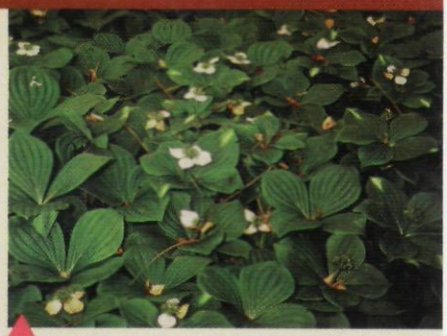
Woodland plants need plenty of organic matter in the soil. The soil structure of most woodland environments is complex and delicate. Soil should never be chopped, tilled or especially sifted. New soil research shows that the structure of soil is best preserved if soil is not turned. Bulldozing does a terrible disservice by compacting the soil and damaging the roots of trees, many of which are close to the surface. Amending a woodland garden with local organic materials, such as shredded leaves, conifer needles, shredded bark and compost, once a year is all the soil should need, and rarely should you need to fertilize. Soil tests at local cooperative extensions are recommended, but an easy test to make sure you have good organic matter is to take 2 cups of soil from the top 6 to 8 inches of your woodland area, and put it in a 1-quart mason jar. Fill with water, shake vigorously and wait 24 hours. You then should have four layers: a thick layer of large-particled duff, a thin layer of clay, a thick layer of silt and a thin layer of sand at the bottom.

predominantly pine trees? Oak trees? Perhaps shady hemlock ravines? Most plants in the woodland areas can be grouped in loose associations that form communities based on the conditions that are favorable to the plants that live within it. Often, under pine trees, with more acidic soil, you find *Cornus canadensis* (bunchberry) growing in association with *Gaultheria procumbens* (wintergreen) and perhaps *Mitchella repens* (partridgeberry). Studying the various communities in wild areas around us gives structure to what seems like nature's chaos, as well as models for planning woodland gardens in our clients' properties. It also gives us a sense of humility as we manipulate the world around us, not to mention some wonderful design ideas based on our natural environment.

Place of origin. These tree communities are changing and evolving constantly. Each one will eventually give way to a new group of plants in a process called succession. I'll use the example of an abandoned farm in the Northeast. The first flush of growth is weeds, such as ragweed and horseweed. During the next few years, the open meadowland becomes filled with biennials and meadow perennials, such as *Aster, Monarda, Rudbeckia, Solidago* and

Herbaceous perennials found under pines

Botanical name	Common name
Cornus canadensis	bunchberry
Cypripedium acaule	two-leaved lady's slipper
Gaultheria procumbens	wintergreen
Mitchella repens	partridgeberry
Polystichum acrostichoides	Christmas fern



Cornus canadensis

bunchberry; dogwood family

Light: shade **Height:** 4 to 8 inches
Bloom: May to June **Zone:** 4 to 5
Bloom color: yellow, white bracts
Soil: rich, moist, acidic (pH of 4 to 5)

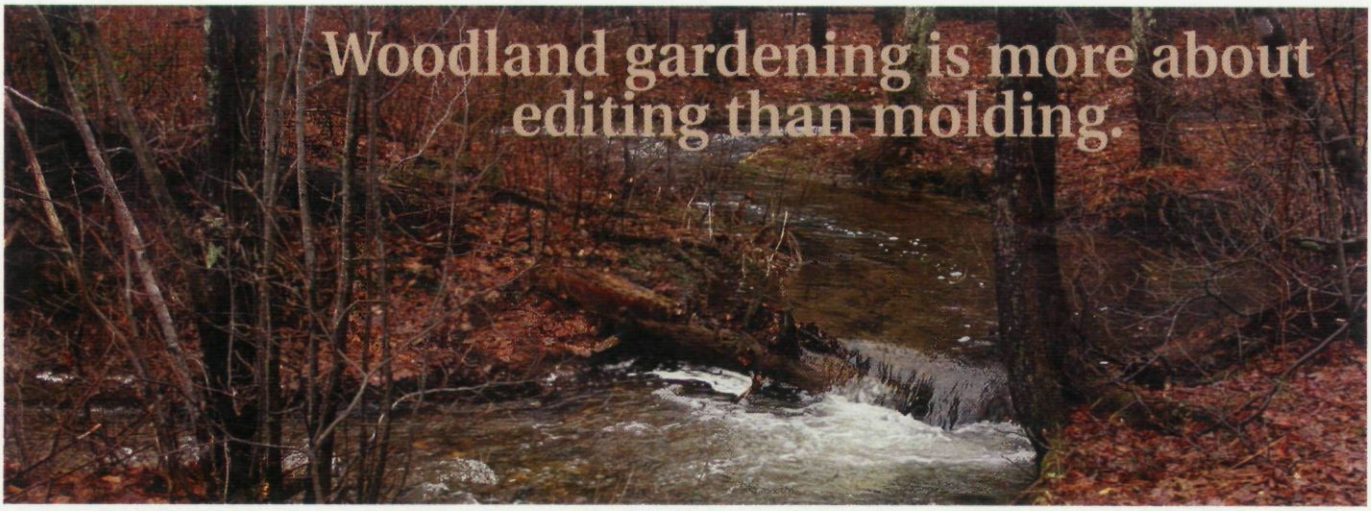
Needs night temperatures in the 50° or low 60° range to produce seed. Best under conifers; moisture is very important. To propagate, separate seeds from berries in late summer and sow fresh, or dig clumps from your garden and redistribute. Has a woody rhizome that often grows over rotting logs.

Forms loose colonies, which are best when interplanted with other woodland plants. Looks nice among mosses, as it stays very low. Thick, shiny evergreen leaves turn red in fall. Leaves have a minty flavor and can be used to make tea. Large, edible berries are used in teas and toothpaste. Seed rarely germinates in the wild. To propagate, dig clumps from areas in your garden where they grow the thickest. Plant 4 to 6 inches apart.

Gaultheria procumbens

wintergreen; heath family

Light: shade to part shade
Height: 2 to 4 inches
Bloom: June **Zone:** 2 to 8
Bloom color: white or pinkish
Soil: acidic, humus-rich, well-drained



Verbascum. These sun-loving plants make a perfect place for the seeds of junipers to germinate.

The junipers will flourish, eventually shading out the meadow perennials, but providing a perfect nursery for gray birches. The gray birches will then shade out the junipers. These birches are fairly short-lived, but pines do well in the shade of their copses and after the pines mature, most of the gray birches have died.

Pine seedlings, ironically, don't do well in the shade of their own kind, but oak trees do very well and, after many more years, stately and long-lived oaks will prevail. These tall canopy trees provide a good environment for the growth of beech, maple and hemlock trees. If these woods are not cut or disturbed, they will remain a stable community of hardwood forests for many years. Where the shade is deep and cool, hemlocks prevail and provide the densest shade in the forest.

The good, the bad and the natural. Natural disasters, such as fires, floods, windstorms and insect infestations, such as gypsy moths, will tear large gaps in these wooded areas. This is healthy because as the succession begins again, it creates another drift in a tapestry of various wooded environments that are in different stages of succession. This tapestry of communities promotes biodiversity and protection against many of the disasters that would only attack selected woodlands, but now cannot travel great distances in a woodland monoculture. Examples would be an insect that only attacks one type of tree or a windstorm that toppled large oaks, but left a growth of young pines.

The disturbance with the harshest impact is human progress because, unlike natural disasters that come and go quickly, our progress is relentless and steady. After the Great Depression, many populations of native wildflowers were cleared to make room for our American strips, or developments, and some did not rebound. Several native perennials,

Herbaceous perennials found streamside

Botanical name	Common name
Acorus calamus	sweet flag
Arisaema triphyllum	Jack-in-the-pulpit
Asarum canadense	wild ginger
Asclepias incarnata	swamp milkweed
Caltha palustris	marsh marigold
Carex pensylvanica	Pennsylvania sedge
Cassia marilandica	wild senna
Chelone glabra	turtlehead
Claytonia virginica	spring beauty
Dicentra cucullaria	Dutchman's breeches
Diphylleia cymosa	umbrella leaf
Dodecatheon meadia	shooting star
Erythronium americanum	yellow trout lily
Eupatorium purpureum	Joe Pye weed
Gentiana andrewsii	fringe tipped gentian
Geranium maculatum	wild cranesbill
Hibiscus moscheutos	swamp rose mallow
Hypericum canadense	St. John's wort
Iris versicolor	blue flag
Lilium canadense	Canada lily
Lobelia cardinalis / siphilitica	cardinal flower / great blue lobelia
Matteuccia struthiopteris	ostrich fern
Mertensia virginica	Virginia bluebells
Osmunda cinnamomea / regalis	cinnamon fern / royal fern
Podophyllum peltatum	May apple
Polygonatum biflorum / commutatum	small Solomon's seal / great Solomon's seal
Rudbeckia laciniata	coneflower
Sanguinaria canadensis	bloodroot
Sisyrinchium angustifolium	blue-eyed grass
Smilacina racemosa / stellata	false spikenard
Spigelia marilandica	Indian pink
Spiranthes odorata	fragrant lady's tresses
Trillium erectum / grandiflorum	wake robin / great white trillium
Uvularia grandiflora	bellwort

Carex pensylvanica

Pennsylvania sedge; sedge family

Light: sun or shade
Bloom: May
Bloom color: tan, inconspicuous
Soil: not fussy at all
Height: 8 to 10 inches
Zone: 4 to 7

Great native grass for shady areas. Soft texture with slender blades; forms a uniform groundcover (and can be moved to 2 inches). Very durable, taking sun or shade and even dry conditions.

Diphylleia cymosa

umbrella leaf; barberry family

Light: full shade to part shade
Bloom: May to June
Bloom color: white
Height: 18 to 28 inches
Zone: 4 to 7
Soil: moist to wet

Forms a large, handsome clump with large, striking leaves, roughly rounded but with jagged lobes and a twinleaf appearance (another common name is pixie parasol). Native to the Blue Ridge Mountains, does best with constant moisture and cool nights. Small, white six-petaled flowers become ornamental fruits with red pedicels. Takes three to four years to reach maturity; great native substitute for *Hosta*. Bold texture contrasts well with ferns, such as lady fern or cinnamon fern. Propagation is easiest by division, but quite difficult from seed.

(more streamside examples are on page 28)

such as goldenseal and American ginseng, also were collected aggressively for medicinal purposes.

Thankfully, we have seen an increased interest in our native species and preservation of our woodlands. Many new homeowners have worked on preserving the wooded areas in back of their new houses, instead of clear-cutting them. What they've learned is fairly simple. Woodland gardening is more about editing than molding. The four things to remember are: protect the canopy (the highest trees); remove invasive species that may try to take over; discourage animal pests when necessary; and control insects and diseases only when they threaten the health of plants in the garden.

We shouldn't mind a few chew holes or the occasional mildew; native gardens are never picture perfect, and this is part of their charm. Also, many times the chemicals used to fight minor pests and diseases are worse than the inflictions themselves.

Plant and grow. Soil management is an essential element in gardening, yet

Native orchid will form large colonies in boggy, acidic soil. Tall, slender flower stems are sent up rapidly in September from low, basal foliage, then buds slowly open to hooded, white flowers. Lacks rhizomes, but stores food in thick roots. To propagate, snap off root sprouts in late spring and transplant carefully (roots are brittle).

Spiranthes odorata

fragrant lady's tresses; orchid family

Light: sun to part shade
Height: 12 to 18 inches
Bloom: September to October
Zone: 5 to 8
Bloom color: white
Soil: moist or boggy, acidic

Spigelia marilandica

Indian pink; logania family

Light: sun to part shade
Height: 12 to 18 inches
Bloom: July to August
Bloom color: crimson with yellow inside
Zone: 5 to 9
Soil: fertile and moist

In moist soil, this Appalachian native forms a bushy clump in two to three years. Has sessile leaves in pairs up each stem. Stunning red and yellow flowers are pollinated by hummingbirds. Plant a large group to ensure enough ripe pollen and fertile stamens at the same time. Used by Indians for expelling worms, due to poisonous alkaloid, as found in most members of the logania family. Another common name is worm grass. Capsules turn a lighter green when ripe. Make sure seed is brown, then sow fresh.

most woodland soil is best left alone. Dead plants and animals decomposing generate the organic matter that is so vital to its structure. One may want to add amendments to increase the organic content, but usually this is not necessary (sidebar, page 22). In designing, choose plants that do well in the existing woodland community. They will eventually form drifts of various groundcovers and clump-forming perennials among the trees and shrubs. This tapestry is ever changing, as some plants go dormant after blooming in the spring, groundcovers spread and intermingle later in the season, and clump formers and shrubs provide accent. Worth the wait, a woodland garden gives the greatest pleasure to the keen observer, the educated consumer and the careful editor.

Leslie van Berkum is a lecturer on perennials, especially foliage, natives and the new and unusual. She and her husband, Peter, are owners of Van Berkum Nursery, Deerfield, NH.

Dodecatheon meadia

shooting star; aster family

Light: sun to part shade **Height:** 12 inches
Bloom: May to June **Zone:** 4 to 7
Bloom color: white to pale pink
Soil: moist in bloom, well-drained, pH 6 and under

Striking "badminton birdie" flowers; thrives in moist spring soils while in bloom. Low, basal foliage, flowers on 10- to 12-inch stems. *D. meadia* goes dormant after bloom, then it is best to cover lightly in mulch and do not water. Plant them at base of stone that can serve as a marker while dormant. To propagate, plant 3-inch sections of the fragrant rootstock one-half-inch deep. Takes about two years to produce a flowering plant. The variety *D. amethystinum* is a vivid pink, but is not as easy to grow.

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