



Planning Your *Native* Garden

A guide to planning, planting, and maintaining a garden of native plants – for members of Wild Ones Capital Region NY.





Wild Ones Capital Region NY Board of Directors would like to express our appreciation to the Common Roots Foundation for funding our grant to create this gardening guide.

Grant awarded Spring 2024

“

The Common Roots Foundation exists to elevate and assist our community in times of need and promote their shared values of creating a more sustainable, inclusive, and safe community. This nonprofit foundation aims to sustain and improve the quality of life throughout northeastern New York.

— COMMON ROOTS FOUNDATION



A NOTE FROM THE PRESIDENT

Welcome to our growing community.

Wild Ones Capital Region New York (WOCRNY)

Our membership is comprised of a diversity of individuals (and landscapes) sharing a common thread that ties us all together — we all value native plants and biodiversity. We share a desire to be a guardian of our wild places.

Thank you for visiting our *Planning Your Native Garden*. Special thanks to the Common Roots Foundation for the grant funding and the many volunteers who brought this concept to fruition.

Follow us on Instagram and Facebook, or check the event calendar on the WOCRNY website for upcoming events, social and volunteer opportunities.

Thank you for being a WOCRNY member — truly. Your membership supports projects initiated by our national team and helps us locally. If you would like to be more involved, we welcome you.

Please join us — there are so many ways to become involved. Please do not hesitate to reach out with any questions, concerns, or volunteer ideas. I hope to meet you at one of our upcoming events!

Rosemary Mix

CHAPTER PRESIDENT

wildones.capitalregion@gmail.com

“ Just dig in. Let's learn, grow, and share our knowledge together.

Contents

Welcome, members. We are glad you're part of our movement to support our ecosystem by planting native plants. This guide will help you plan, plant, and maintain your native garden — written for beginners and experienced gardeners alike.

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BEFORE YOU BEGIN

How to use the guide.

What makes this guide unique is the inclusion of **links to trusted online resources** — blog posts, videos, apps, and plant lists from *Wild Ones*, *Homegrown National Park*, the *Xerces Society*, and the *Monarch Joint Venture*.



START HERE — MOST IMPORTANT

Keep a gardening journal.

Many gardeners find it helpful to keep a journal where they record plans, sketches, and observations to return to. Throughout this guide, the  seedling with a  **JOURNAL · #XX** badge marks **an activity worth putting into your journal** — flip to the matching **#XX** in the printable Journal companion.

01

BACKGROUND

Each section opens with background information under **green banner headings** — the "why" behind each topic.

02

ACTIONS

Background is followed by concrete action steps — practical things you can do in your own garden this season.

03

SEEDLING MARKERS

Wherever you see the  seedling, it marks a journal activity — a place to plan, sketch, or record what you observe.

Helpful overview resources

As you use this guide you may find it helpful to look at other resources that provide an overview of the garden planning process:



[Planting for Pollinators](#)

Northeast Pollinator



[Wild Ones Native Garden Design and Landscaping](#)

Wild Ones National website



[Native Garden Designs](#)

Wild Ones National website (*the Albany plan is "coming soon!"*)

Let's get started!

TURN THE PAGE →

01

SECTION ONE

Learn About Native Plants.

This section begins by explaining how native plants support our ecosystem. It then discusses how to identify native plants by their scientific names, why you should refer to plants by their scientific names, and the sources we recommend for identifying plants native to our region.



Butterfly Milkweed
Asclepias tuberosa



Cardinal Flower
Lobelia cardinalis



Wild Bergamot
Monarda fistulosa



Why native plants

A healthy planet starts with native plants. They are the foundational block in the food web we all depend on.

Native plants support pollinators and wildlife in ways that non-native ornamentals cannot:

- Most native bees and pollinators require specific plants or flower shapes to survive.
- Healthy pollinator populations mean better crop yields to feed people.
- Native gardens offer wildlife quality shelter.
- Native gardens are easier to maintain than lawns — requiring less water and less mowing.
- Native plants sequester carbon and clean pollutants from our air and water.

90%

OF BUTTERFLY & MOTH
SPECIES DEPEND ON
KEYSTONE PLANTS

25%

OF NATIVE BEES ARE POLLEN
SPECIALISTS

436

CATERPILLAR SPECIES USE
THE WHITE OAK AS HOST

Many native plants play a critical role in the conservation of butterflies and moths, serving as the primary food sources for larvae. One in four native bees needs a specific flower to collect pollen. A bit more intention in plant selection lets us give pollinators the partners they need.

Hundreds of species rely on just one or two specific plants (or groups, genera or families of plants) for reproduction, meaning that if we are a bit more intentional with our plant selection, we can provide pollinating moths and butterflies with the essential plant partner they need to persist. This is especially important as habitat loss, climate change, and the proliferation of pesticides threaten moth and butterfly populations. *Butterflies and moths need them!*

Further reading



[Why Native? Benefits in a changing climate](#)

ScholarWorks · UMass / NH DFL



[Why We Need Insects and Other Invertebrates](#)

Xerces Society



[Why Native Plants?](#)

National Wildlife Federation



[To Protect Pollinators, Fight Light Pollution](#)

Xerces Society



[Native Plants Are a Key to Climate Resilience](#)

Xerces Society



[Why Native Plants Matter](#)

Audubon



[NAPPC Lepidoptera Task Force](#)

Pollinator Partnership



Use scientific plant names

Some of the most spectacular native plants were given common names that refer to them as "weeds" — Giant Ironweed, Joe Pye Weed, Jewelweed, and Milkweeds. As you learn more about those "weeds," you will appreciate their beauty and significance to our ecosystem.

While it is easy to refer to native plants by those common names, they are like "nicknames" — and one plant can have many! However, each plant has **ONLY** one botanical (or scientific) name, unique to that plant.

When you say "*I am going to plant some geraniums,*" which of these plants do you think of?



Geranium maculatum

Wild geranium — a native woodland wildflower with lavender blooms.

OR



Pelargonium hortorum

Zonal geranium — the annual bedding plant, not native to North America.

As you plan your garden, create plant lists that include the botanical/scientific species names — these are created by botanists and reflect the taxonomy of the plant in the order **family > genus > species**, written in Latin. Including them in your records will help you distinguish similarly named plants as your garden grows.

Straight native species vs. cultivars / nativars — plant labels can be confusing

TIP When a plant label has a name in **single quotation marks** (e.g., *Achillea* 'Moonshine' or *Echinacea* 'Little Joe'), it designates a cultivar or nativar — one that has been genetically modified to develop fancy traits attractive to humans, such as color changes or double blooms.

Many pollinators may be challenged to extract nectar from a plant with an altered bloom or to recognize a cultivar as a food source. Wild Ones encourages you to build a landscape of **food sources**, **not merely decorations**. Look for straight native species and avoid cultivars/nativars.



Use the New York Flora Atlas

Wild Ones Capital Region NY (WOCRNY) highly recommends the use of the NY Flora Atlas to identify which plant species are native to our local counties — and to accurately spell their scientific names. Check a specific plant at a nursery before you purchase; just because it is labeled "Native" does NOT indicate it is native to New York.

TIP Just because a seed packet is labeled "pollinator friendly" does not mean the species are native — or even that they will thrive in our region. Do your research and be cautious so you don't introduce aggressive spreaders or non-natives.

NEW YORK FLORA ATLAS

Search the Atlas by inputting a common nickname or a scientific name. In the example below, we have used the Atlas to check whether two species in the genus *Helianthus* are native to New York.

newyork.plantatlas.usf.edu

Planting "sunflowers"? Which ones are native species?



✓ Native — *Helianthus divaricatus*

Woodland sunflower. Hosts 50 pollen-specialist bees.

Source: NY Flora Atlas for the photos and names.

OR



✗ Not native — *Helianthus hirsutus*

Hairy sunflower. Native to central / southern US, not NY.

A NOTE FROM WOCRNY

WOCRNY relies upon the NY Flora Atlas to identify which plants we will sell at our plant sales and include at our annual seed swap celebration. **We do not offer cultivars — only straight native species.**

BEFORE YOU BUY — 3 QUICK CHECKS

1. Search the plant's **scientific name**.
2. Confirm it is listed as **native to NY**.
3. Verify the label has **no single quotation marks**.



Keystone and host plants

Keystone plants are native species that act as the foundation of an ecosystem — providing essential food and shelter for wildlife.

Per the National Wildlife Federation, **keystones support roughly 90% of butterfly and moth species and nourish specialist bees** — forming a critical, irreplaceable link in the food web. Before making your plant selections, consider which keystones you want to include.

Fourteen percent of keystone plants support 90% of moths and butterflies. For example, 436 caterpillar species use the White Oak (*Quercus alba*) as a host, and 50 pollen-specialist bees rely on Woodland Sunflower (*Helianthus divaricatus*).

TIP Keystone lists are organized by ecoregion. The NWF maintains a searchable directory of keystones for every ecoregion in the United States — find yours before you sketch a bed.

KEY REFERENCES FOR KEYSTONES



Keystone Plants by Ecoregion
National Wildlife Federation



Interview on keystones
Uli Lorimer & Margaret Roach



Native flowers, shrubs, trees (fact sheet)
NYS DEC

5 Keystones for our region

Caterpillar & specialist-bee data: NWF Native Plant Finder



White Oak *Quercus alba*
436 caterpillar spp



Black Cherry *Prunus serotina*
340 caterpillar spp



Blueberry *Vaccinium* spp.
272 cat · 14 bees



Goldenrod *Solidago* spp.
115 cat · 42 bees



Native Aster *Symphotrichum* spp.
109 cat · 33 bees

 JOURNAL · #01

 Your keystone shortlist

List 3–5 keystone plants you'd like to include. Note their ecoregion and what species they support.



Sources for additional information

As you plan your garden, you may want more detail on candidate plants — mature size, preferred soil conditions, noteworthy characteristics, suggested partners, and seasons of interest. Consider plants that will be eye-catching **each season, including winter** — those with interesting texture provide visual interest and help birds find shelter and seeds.

General references

-  [Native Plants of North America](#)
Lady Bird Johnson Wildflower Center
-  [Go Botany](#)
Native Plant Trust
-  [Plant Finder](#)
Missouri Botanical Garden
-  [Plant Sale Signs](#)
WOCRNY

Plants that support specific birds and insects

-  [New York Native Plants](#)
Garden for Wildlife
-  [Ecoregional Planting Guides](#)
Pollinator Partnership
-  [Native Plant Finder](#)
National Wildlife Federation
-  [Bird-friendly plants](#)
Wild Ones HGCNY
-  [Plants for Pollinators: Northeast](#)
Xerces Society
-  [Create Habitat for Monarchs](#)
Monarch Joint Venture
-  [Native Plant Database](#)
Audubon



Section 1 — Your Takeaways

01 Use scientific names

family > genus > species. Single quotation marks = cultivar — avoid.

03 Prioritize keystone plants

They support **~90%** of butterfly & moth species and specialist bees.

02 Verify with the NY Flora Atlas

The authoritative source for what's truly native to our local counties.

04 Remember: 14% does 90%

Just 14% of keystone plants carry 90% of the lepidoptera load. Choose well.

02

SECTION TWO

Understand Your Site Conditions.

It is important to determine the specifics of your unique garden's conditions in order to work in collaboration with your space to help your plants thrive. Considerations include: the ecoregion, sun exposure levels, soil characteristics, presence of invasive species, drainage, soil pH, temperature range, precipitation, elevation, and aspect (such as north- or south-facing slope) of your site as you plan for a successful garden.



Testing soil texture



Native garden border



Determine your ecoregion

An **ecoregion** is a geographical area defined by similar ecosystems — climate, geology, soils, plants and animals. Knowing yours is more useful than the traditional "hardiness zone" for native plant choices. Within the WOCRNY seven-county catchment area, ecoregions vary by address.

Our 3 ecoregions at a glance

Your garden's ecoregion may differ from a neighbor's across the county.

Adirondack Foothills

Northeastern Highlands

COUNTIES

Northern Saratoga & the foothills.

TERRAIN

Cooler summers, rocky terrain, thin acidic soils. Forest-edge gardening.

SIGNATURE NATIVES

Vaccinium, *Cornus canadensis*, ferns, white pine.

Hudson & Mohawk Valleys

Eastern Great Lakes Lowlands

COUNTIES

Albany, Rensselaer, Schenectady, southern Saratoga, Columbia.

TERRAIN

Warmer summers, longer growing season, deeper richer alluvial soils. The most flexibility for native species.

SIGNATURE NATIVES

Asclepias, *Echinacea*, oaks, sugar maple, black cherry.

Catskill Mountains

North Central Appalachians

COUNTIES

Greene, Schoharie, parts of southern Albany.

TERRAIN

Higher elevation, shorter season, cooler nights. Plants must tolerate frost into late spring.

SIGNATURE NATIVES

Trillium, *Tiarella*, hemlock, mountain laurel, red maple.

RESOURCES



[Ecoregions, Native Ranges & Hardiness Zones Explained](#)

Wild Ones National



[Ecoregions & Ecological Communities in the Capital Region NY](#)

WOCRNY · by botanist Steve Young

Your ecoregion

 JOURNAL · #02

Use the resources above to find your ecoregion. Record its name and a few key characteristics (climate, soils, typical plant communities) — you'll return to these notes every time you choose a plant.

TIP **Start small.** It's better to look forward to adding plants each year than to feel overwhelmed. Start with a **4 × 4 foot space** — you can always expand. Many WOCRNY members say their gardens grew in confidence as they grew in size.

TIP **Visual cues.** **Purple banners** mark **action steps**. The  **seedling** +  **JOURNAL · #XX** badge cues you to record an answer in your gardening journal. WOCRNY members may pick up a free journal at chapter events.



Determine the sun exposure of your garden space

You should know the path of the sun, and the shady areas of your yard based on the time of day where you plan to create a native garden, so you know what plants are best suited for the space. Plants thrive if they have the right amount of sun.

It is best to do this on a bright sunny day. You can do it twice — once before the leaves have filled out in the spring and again after the leaves have filled in.

The pencil-and-tracing-paper method

1. No matter the size of your lot or garden area, start with a sketch of the property drawn to a reasonable scale that includes any existing buildings. Use a survey map if you have one. Be sure to measure how far back from the road the house sits and any walls, walks, or driveway areas. You can also use Google Maps to get an area view with dimensions.
2. Cover the property map with a piece of tracing paper. Write the time of day and mark where the sun hits on the property. Use the side of a pencil to mark the areas of shade, from light shading to dark. Use an eraser to break up the shaded areas to indicate dappled sunlight zones. **Tip: Set an alarm for 1 hour.**
3. After an hour, add a new piece of paper and repeat this exercise.
4. Repeat for a total of **six times**.
5. Determine the total number of hours of sunlight and the level type your gardening spot receives each day.

TIP An alternative method — use technology. If it is winter and you are planning ahead, or you just prefer a tech approach, measure sun exposure in your garden using online tools like **SunCalc** (suncalc.net) or **Shadowmap** (shadowmap.org).

UNDERSTANDING SUN EXPOSURE LEVELS

- **Full Sun** — more than 6 hours of direct, unobstructed sunlight per day (not necessarily continuous).
- **Part Sun** — 4–6 hours direct sun, including some afternoon.
- **Part Shade** — 4–6 hours direct sun, mostly before midday.
- **Full Shade** — less than 4 hours direct sun per day.
- **Dappled Shade** — per Penn State Extension, partially filtered sun under open-canopied trees with an ever-moving pattern of sun and shade. Also known as *intermittent shade*.



Your sun exposure



JOURNAL • #03

Identify your garden's sun exposure levels. Note hours of direct sun for each zone, and which category each falls into.



Determine your soil type

To determine what kind of soil you have, you need to get your hands dirty! Dig a handful of soil from the area where you are planning your garden. Dampen some soil and form it into a ball. Then squeeze the ball.

The squeeze test — three possible outcomes

Each soil type tells you how water behaves and which native plants will thrive. The columns below pair the squeeze-test result with matching plant choices.

Sand-based

If the ball **crumbles and falls apart**, your soil is SAND-based.

WATER BEHAVIOR

Drains **quickly** — dries out fast in summer; less able to hold nutrients.

PLANTS THAT THRIVE

Drought-tolerant natives — butterfly weed, little bluestem, prairie smoke, pussytoes.

Clay-based

If the ball **presses into a flat ribbon** between your fingers, your soil is CLAY-based.

WATER BEHAVIOR

Retains water for **longer periods** — slow to drain; can stay soggy after rain.

PLANTS THAT THRIVE

Moisture-lovers — New England aster, swamp milkweed, Joe Pye weed, cardinal flower.

Loam-based

If the ball forms a **rough crumbly ball** when squeezed, your soil is LOAM-based.

WATER BEHAVIOR

Offers a **balance** between drainage and retention — the gardener's gold standard.

PLANTS THAT THRIVE

Widest selection — most natives thrive; you have the broadest palette to choose from.

Beyond texture — test for nutrients & contaminants

Your county's **Cornell Cooperative Extension** can do soil testing for you. As they explain: "A soil test can tell you what nutrients are in your soil, the state of its health, or even if you have contaminants harmful to humans, plants, or the environment. Together with healthy gardening practices, testing can lead to better management as well as safe and productive soils." A test also saves you money by eliminating unnecessary fertilizer — and protects waterways from runoff.

SOIL RESOURCES



[Simple ways of checking soil moisture](#)
ECOGardener



[Soils & Climate — county soil testing](#)
Cornell Cooperative Extension, Albany County

Your soil

 JOURNAL • #04

Record the results of your squeeze test. Note your soil type, any differences across your garden area, and whether the soil feels dry, moist, or wet.



Prepare your garden site

Identify & remove invasive species

Eight Partnerships for Regional Invasive Species Management (**PRISMs**) exist across New York State and work to prevent or minimize the harm caused by invasive species on New York's environment. The video "[Invasives: Reality of Management](#)" with Addison Kubik of the Capital Region PRISM is a great place to start — additional information is on the [DEC/PRISM website](#).

Remove turf grass before planting

How will you remove any turf grass from the area you wish to create a native garden? It is best to eliminate grass before you plant natives. Turf removal methods include **smothering**, **digging up**, or using a **rented sod cutter**. Many have found the "**lasagna method**" — sheet mulching with cardboard and compost — an easy way to prepare a garden bed.

⚠️ CALL 811 BEFORE YOU DIG

Call 811 (or call811.com) before digging — utility lines get marked free of charge. Required by law in NY.

⚠️ AVOID HERBICIDES & PESTICIDES

Smothering and manual removal are safer than glyphosate. If chemicals are needed, research risks first and never use near water.

RESOURCES — INVASIVES & TURF REMOVAL



[Invasives: Reality of Management \(video\)](#)

Capital Region PRISM · Addison Kubik



[Lasagna Method \(video\)](#)

Cornell Cooperative Extension



[Shrink Your Lawn](#)

Homegrown National Park



[Invasive Species Partners & Resources](#)

NYS DEC / PRISM



[Less Lawn More Life Challenge](#)

lesslawnmorelife.com



Your site-prep plan



JOURNAL · #05

After watching the videos above, consider what removal method you will use if you have turf grass or invasive species in your planned garden space. **Always remember SAFETY FIRST before you begin digging!**



Section 2 — Your Takeaways

01 Know your ecoregion

Ecoregion matters more than hardiness zone — it guides every plant choice.

03 Remove invasives & turf first

Clear the space before you plant. Try the lasagna method for turf.

02 Map sun & test soil

Track sun hours across 6 time slots; do the squeeze test to know your soil.

04 Start small — safety first

Try a 4×4 ft space. Always remember safety before you dig.

03

SECTION THREE

Make Informed Native Plant Selections.

While you may be eager to start planting now, a bit more forethought will pay off. Now is the time to become familiar with possible plants that would do well in your space and that you find attractive – and then consider the design of your space.



Garden planning sketch



Pressed plant journal





Note your garden goals

It helps to identify the goals you have for your space before you start picking plants.

ASK YOURSELF

- ? Do you want the space to look **structured** or **loose and wild** – or somewhere in between?

? Do you want to attract **pollinators and birds**?

? Do you have to consider **rabbits and deer browsing**?
- ? Do you care what your garden looks like in **all seasons**?

? Will you include **keystone plants**?

? How much **time** are you ready to spend on garden care each season?



Your garden goals



JOURNAL • #06

Note what goals you have for your garden, using the questions above as prompts. Be specific – "host monarchs" gives clearer plant choices than "support wildlife."



Go explore — see native plants in real gardens

Before selecting plants, it is helpful to see what they look like in "real" gardens. Tour some of the native gardens throughout the Capital Region.

A FEW GARDENS TO VISIT

See the full, updated list →

GARDEN	NOTES	ADDRESS
Unity Church WOCRNY garden	Planted by WOCC members, 2023	1500 Western Ave, Albany
Pine Bush Discovery Center	Labeled native garden outside the center	195 New Karner Rd, Colonie
Bethlehem Town Hall	Bethlehem Garden Club & Albany Co. Master Gardeners	445 Delaware Ave, Delmar
Hudson Crossings Park	Meadow in the Sky: 18-oak allée, 87 understory trees & pollinator gardens	Lock C5, Schuylerville
Schenectady Central Park	Maintained by Schenectady CCE Master Gardeners	180 Ptl. Arthur Claires Ln, Schenectady



On your site visits



JOURNAL • #07

Keep notes about which plants you like. Take photos. Sketch which plants look good together.



Create a wish list of possible plants

With the information from the previous sections, you now can begin to identify which plants your property can support that will help you meet the goals you have for your garden.

Your wish list

 JOURNAL • #08

Make a wish list of the native species you like and that suit your conditions. **Remember that natives are more than pretty flowers** — include native grasses, shrubs, and trees too! Early-blooming trees and shrubs can help feed newly emerged pollinators. Use the scientific names of plants to ensure accuracy.

Know your codes & neighbors

Familiarize yourself with any relevant Homeowners Association (HOA) or town codes before you work on your design. Some towns and most HOAs require plants be no more than a specific height to avoid the property looking abandoned. If you work to make your garden look *intentional* — by edging beds or adding decorative rings of stone — the plants inside may be considered allowable.

As we embrace the change from traditional "golf course" front lawns to more natural yards with native plants, remember that change can be a challenge. Talk to your neighbors, explain your motives, and let them know that native plants take a few years to fully establish.

“

*Wild Ones emphasizes the importance of creating "**cues to care**" in your design. They give your forward-facing gardens a kept look — a pathway, a bench, a water feature, a statue — all signal that you are caring for and using the space.*

— WILD ONES, ON NEIGHBORLY LANDSCAPING

Signage can help inform passersby of your intention. There are several clever signs on the market:

- **Pollinator Partnership** · pollinator.org/garden-signs
- **Home Earth Alliance** · homeearthalliance.org/store/p/garden-signs
- **Wild Ones — Cues to care** · wildones.org/cues-to-care-the-language-of-neighborly-landscaping



Sketch your plan & create a planning chart

You are now ready to make a sketch of your space using the list of plants you prepared. The sketch can be as simple as a bubble drawing showing where each plant (or group) will be placed. A planning chart should include each plant's **height, flower color, bloom time, sun requirements, and common name**.

How many species for a pollinator garden?

If your goal is to provide a feast for pollinators, consider how many of each plant to include. An ideal pollinator garden offers constant, overlapping flowering from early spring to late fall. These guidelines come from Northeast Pollinator Plants:

9+

WILDFLOWER SPECIES — 3
EARLY, 3 MID, 3 LATE

1+

NATIVE GRASS — NESTING
SITES AND MATERIAL

8

OF EACH SPECIES, IN
SWATHS, FOR EFFICIENT
FORAGING

Every little bit can help! Don't fret if you can't meet these guidelines — plant what you can now. A balcony flower box can save a pollinator in search of nectar.

How many of each plant?

Use anticipated **width measurements at maturity** to determine how many plants can fit in your space. Calculating the square footage of your site can help you determine how many seeds to sow — or individual potted plants — once you know their mature size.

DESIGN SOURCES FOR SKETCHING & PLANNING



[Native Garden Design Brochure](#)

Wild Ones — mixing textures, focal points, edging



[Step-by-step sketching](#)

Homegrown National Park



Your plant counts



JOURNAL • #09

Identify the square footage of your garden area. Then use each plant's mature width to estimate how many of each species you'll need.



Acquire your plants

Consider how you want to acquire the plants for your garden. The sources listed on the WOCRNY site have **seeds, plugs, a variety of container sizes, and ball & burlap shrubs and trees** available.

WHERE TO BUY – WOCRNY SOURCING



WOCRNY Shopping Guide

Useful tips for sourcing natives



Local nurseries & online sources

WOCRNY curated list



Native Plant Sale

Annual · Thatcher State Park · open to all



Native Seed Celebration

Free fall seed swap · open to all

CAUTION **Invasive Worms.** The Asian Jumping Worm decimates roots and can be inadvertently brought home through the soil of potted plants, from another's garden, or on shoe treads. Read the [Cornell Cooperative Extension](#) guide before accepting plants at a roadside sale.

⚠️ Avoid neonicotinoids

Neonicotinoid insecticides are *systemic* — they dissolve in water and are absorbed by plants, making the plant itself (including its nectar, pollen, and fruit) toxic. Levels can be high enough to make the plant toxic to insects for **years** after treatment.

WARNING Some stores sell plants or seeds treated with neonics. **Always ask.** If there is any uncertainty, be wary.

LEARN MORE



Ten things you always wanted to know about neonics

NRDC

Before you shop — a quick checklist

- ☐ Bring your **wish list with scientific names** — labels can be confusing.
- ☐ Check unfamiliar species against the **NY Flora Atlas** before buying.
- ☐ Inspect container plants — avoid **pot-bound** roots.
- ☐ Ask about the **source** — locally propagated, not wild-dug.
- ☐ Match each plant's **sun & soil preferences** to your site notes.
- ☐ Note **when** each species blooms to plan overlapping flowering.

TIP The annual **Native Plant Sale** at Thatcher State Park is open to all (not just members) — get vetted straight-native species plus advice from volunteers who know what thrives here.



Five ways to source plants

There are different ways to acquire plants. Some are more budget friendly, while others help you get the garden established more quickly.

Seeds

MOST ECONOMICAL

The most economical option. In the wild, most plants reproduce from seed — resulting in genetically diverse plants that adapt better to their environment and are more resistant to pests, disease, heat, droughts, and floods. Use **locally sourced seeds** from native seed nurseries or local seed swaps to restore ecosystems and ensure bloom times match regional wildlife. Avoid "wildflower" or "pollinator" mixes — many contain aggressive or non-native species. You can also collect seeds from plants at home.

[Wild Seed Project — seed dispersal & collection →](#)

Plugs

QUICK & COST-EFFECTIVE

Young seedlings grown in soil-filled cells (up to 50 per tray). Each plug has an **established root system**, so plants establish quickly. More economical than potted plants when you're covering a large area, and the smaller hole size means less disturbance to existing trees and shrubs. Check the WOCRNY shopping guide for mail-order nurseries — many have order deadlines.

[WOCRNY local nurseries & online sources →](#)

Container grown

CONVENIENT, FLEXIBLE

Plantable throughout the growing season. Often adjusts better to transplanting (less shock) and looks attractive with immediate foliage. **More expensive**, heavier to ship, and can become rootbound if potted too long. Plastic pots are not recyclable — more landfill. Be cautious accepting plants from friends or roadside sales due to **Asian Jumping Worm** risk.

Bareroot

ECONOMICAL & ECOLOGICAL

No plastic pot, no soil — lighter, cheaper to ship, and **stronger root systems** that are less prone to transplant shock. Visible roots let you detect disease. Downsides: roots must stay moist and be planted as soon as possible after receiving. Shipped dormant, so planting window is narrow — **late fall through early spring**.

[Bare root plant guide · College of the Environment, WWU →](#)

Balled & burlapped (B&B)

LARGER TREES & SHRUBS

The tree root balls of **ball & burlap** trees and shrubs (referred to as B&B) are wrapped in burlap and wire to protect them during transport. Typically used for larger stock. Planting technique and aftercare matter — see Section 4 for how to plant and establish.

Section 3 — Your Takeaways

01 Start with goals & site visits

Know what you want before you shop; tour real gardens.

03 Sketch a plan & plant densely

9+ species · 1+ grass · swaths of 8. Mature width determines count.

02 Build a wish list with scientific names

Include grasses, shrubs, and trees — not just flowers.

04 Source carefully

Native-plant specialists, not big-box stores. Always ask: **grown without neonicotinoids?**

04

SECTION FOUR

Plant Your Garden.

Included in this section are some tips (and links to information) that can be helpful as you plant your native plants as seeds, plugs, bareroot plants, B&B, or container grown plants.



Native seedlings in plug trays



First-season watering



Mulched native bed



Water before planting

Water your plugs and container grown plants a few hours before planting to make them easier to remove from their containers. Plant soon after removing them from their containers, to avoid drying out the fragile roots. Bareroot plants should be planted within a few days of receiving them. Keep the roots moist and cool until planting. **Place the roots of bareroot plants in water for three to six hours before planting.**

TIP Plant or transplant on **cloudy days and in the afternoon** to avoid stressing the plants. Water the hole before planting and again after burying the roots.



Planting — by plant type

🌱 Planting Seeds

STRATIFY & SCARIFY

Many seeds require a cold, moist period called **stratification** to germinate — it mimics winter to wake seeds from dormancy through exposure to cold, moist conditions (usually in the refrigerator). Length varies by species. These seeds can be *winter sown* by broadcasting them in fall (no pots, soil, or attention), or by planting seeds in moist soil inside clean milk jugs placed outside as mini greenhouses. Seeds with hard coated shells require **scarification** — weakening the shell via abrasion (sandpaper), nicking, or hot water to allow water absorption.

- 🔗 [Wild Seed Project — how to grow natives from seed →](#)
- 🔗 [CCE Putnam — native seeds & winter seed sowing →](#)
- 🔗 [Prairie Moon — Germination Codes & Seed Starting Basics \(PDF\) →](#)

🌱 Planting Plugs

HORI HORI & WATER OFTEN

For lots of plugs, consider a **Hori hori knife** — useful for digging a narrow hole deep enough for the plug's roots. Plan enough time (smaller hole, but still time-consuming), water the plugs well before planting, and **water as you go** (don't wait until you've planted 25 before watering the first). Some guides suggest laying plugs out where they'll be planted — only do this with multiple helpers, otherwise the plugs will dry out before you get them in the ground.

🌱 Planting Container-grown

SHORT, NARROW SHOVEL

A **short shovel with a narrow blade** can make quick work of digging holes for plants in containers up to a gallon in size.

🌱 Planting Trees & Shrubs

CONTAINER · BAREROOT · B&B

The NYS Department of Environmental Conservation (DEC) offers extensive instruction on how to plant **container grown, bareroot, or B&B trees**. The Arbor Day Foundation provides additional guidance on how to plant a bareroot tree. **Please be careful to avoid "girdling" the tree trunk** to ensure it can live a long, healthier life.

- 🔗 [NYS DEC — How to plant a tree →](#)
- 🔗 [Arbor Day Foundation — How to plant bareroot trees →](#)



Watering your new garden

A benefit of native gardens is that once they are established, they require less water except during significant drought or heat stress.

New seedlings should never be allowed to completely dry out until they are well rooted. For young trees and shrubs, consider continuing a watering schedule for the **first three years**. Native plants require **deep watering** for good root development.

7 HINTS FOR WATERING

- 💧 **Early morning water is best** — plants hydrate before heat, foliage dries before night.
- 🎯 **Method:** water the soil directly, not the leaves.
- 📏 **Depth over frequency:** water deeply to reach the root ball.
- 🖐️ **Check moisture:** finger 2 inches into the soil — if dry, water.
- 🪴 **Container care:** pots dry out faster; daily or twice-daily in extreme heat.
- 🛠️ **Tools:** soaker hoses or drip irrigation deliver water slowly.
- 🌿 **Mulch:** 2–3 in. organic mulch keeps roots cool.

Take care of your new plants' water needs

JOURNAL • #10

Note your watering schedule, which beds need more frequent attention, and anything you've observed about your garden's drainage.



Soil amendments & mulching

Beware of amending soil

Most native gardeners **do not** recommend adding amendments to the soil when planting native plants, as they thrive in existing, local soil and often prefer low-nutrient conditions. If you have selected plants that work with your site conditions, no amendments should be necessary — although some mulch on top might be used for moisture control. [Read "The Myth of Soil Amendments"](#) for the science.

Mulching — benefits & drawbacks

✓ Benefits

Conserves moisture, suppresses weeds, moderates soil temperature, reduces erosion. Organic mulches enrich soil.

⚠️ Drawbacks

Disturbs ground-nesting bees; wood chips tie up nitrogen; inhibits self-seeding. **Avoid dyed mulches.**

TIP Avoid "volcano"-style mulch — especially around trees. Per DEC: "Do not mound the mulch up against the trunk — it can lead to mold, pest damage, decay, or even death." Iowa State Extension →



Protect new plantings from animals

Depending on the animals living in your neighborhood (**deer, rabbits, voles, groundhogs**, etc.), you may need to protect new plantings. It can be frustrating when you invest in new plants and a little creature tastes a new plant just to see if they like it — they may leave it alone, or it may become their favorite flavor!

Chicken wire cages over new plants will protect them while rooting. If you use strong-smelling sprays, spray the **foliage, not the flowers**. Some plants become more appealing to animals in winter when food is scarce — be prepared to put up fence barriers in the fall. If you have questions, call your Cooperative Extension.

JOURNAL • #11

Take steps to protect new plants

Note which animals visit, what they target, and your protection plan (cages · sprays · fencing · timing).



Label & record your plants

Labeling plants in the ground can be very helpful until you become familiar enough to recognize them in each season. Some gardeners use a **popsicle stick and magic marker**; others prefer **copper or wood** labels to write the names of the plants.

Do this **in the fall** so you know what's breaking ground in the spring. Match the scientific name to your journal label — you may add diverse varieties over time.

JOURNAL • #12

Tape seed packages in your journal

Include the **date of purchase** and specifically **where** and **when** you planted them.



Section 4 — Your Takeaways

01 Plant smart, not stressed

Plant on **cloudy afternoons** to reduce transplant shock. Pre-soak plug and container roots; soak bareroot plants 3–6 hours before going into the ground.

03 Water deep, not often

Early morning, soil-not-leaves, finger 2 inches in to check moisture. Trees and shrubs need consistent watering for **their first 3 years** — then natives largely take care of themselves.

02 Match technique to plant type

Seeds need **stratification or scarification**. Plugs go in fast with a **Hori hori knife**. For trees, never let mulch touch the trunk — avoid girdling at all costs.

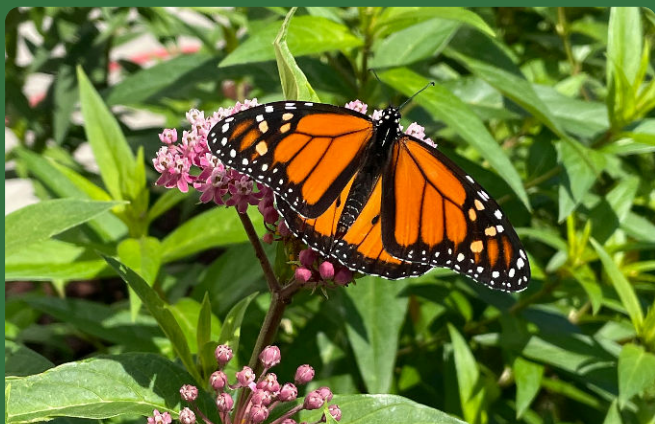
04 Protect, mulch right, label well

Cage young plants against **deer & rabbits**. Mulch **2–3 inches** — never volcano-style. Label everything in fall (popsicle stick to copper); your future self will thank you in spring.

05
SECTION FIVE

Plan for the Long Term.

You've planted your garden — now watch it grow and enjoy the visiting pollinators and birds! This section includes some suggestions that can help you care for your garden as it develops and matures.



Monarch on Swamp Milkweed
Asclepias incarnata



Purple Coneflower in winter
Echinacea purpurea



Autumn leaves left as habitat



Care for your garden as it matures

Give your garden time to establish

Be aware that it takes time for your garden to mature. The popular adage is: the first year, the plants **sleep**; the second year, they **creep**; and the third year, they **leap**.

Monitor your garden

Walk your garden frequently — even in the winter months — and monitor how plants are doing. **Which plants are thriving? Which need more moisture, sun, or space?** In winter, look for critters nibbling on shrubs or trees and add barriers to protect them.

Monitor & keep notes

Record observations across the seasons — what's thriving, what's struggling, what's being nibbled, and what you want to try next year.

 **JOURNAL • #13**

Insects on your plants

As you monitor your garden, you may discover caterpillars or insects munching on your plants. Use [iNaturalist](#) or the **Picture This** apps to identify them. If they are native, they are part of the life cycle of our moths and butterflies. **Leave them!** Rarely will they kill the plant, and the caterpillars will provide critical food for the chicks that are born in your neighborhood. If the caterpillars are not native, decide if it is critical to remove them and then use the least impactful means necessary. Avoid using treatments that might poison the "good" caterpillars and insects. [Learn more at naba.org](https://naba.org) →

Maintenance & dividing

Maintenance means that you may need to do some **weeding**, especially while your plants are maturing. An established native garden often does not require a lot of weeding. Minimize how much you disturb the soil when weeding to avoid disturbing weed seeds. Most weeds can be killed by regular, consistent clipping at their base — but pulling out weeds by their roots is most effective.

Believe it or not, the day will come when you may consider **dividing** some of your plants! Some plants will need to be divided in the autumn while others will need to be divided in the spring. [Learn more from Native Maine Gardens](#) →



Gardening through the seasons

What your garden provides year-round is **habitat** for many other living beings. How you manage your garden in the fall and over the winter can significantly impact the well-being and survival of birds, bees, and more. It may take some time to accept that a "messy" yard is a healthy yard!

Spring

Spring "clean up" means removing **trash, not leaves!** Growing early blooming trees and flowers will support pollinators, who also need your hollow stems to use as nurseries. Keep busy growing seedlings!

Note: Dandelions are not native, but have naturalized over hundreds of years and provide early season nutrition for many pollinators – and for people willing to pick the greens for salads.

Autumn



Leave the leaves

Leaves are not "litter"! They shelter overwintering insects and feed the soil. Rake into garden beds, compost, or thin piles at tree bases. **Avoid shredding with a lawn mower** — it destroys cocoons, chrysalises, and eggs.

Leave the stems

Many pollinators use dried plant stems to overwinter or to lay their eggs — learn how and when to prune. Stems create attractive winter garden areas. Xerces Society's "Nesting and Overwintering Habitat" has detailed guidance.



Share the seeds

Fall is the time to collect seeds if you want to plant them in other areas or share with others! WOCRNY and the Thacher Park Emma Treadwell Center hold a **free seed swap every fall** — bring seeds to share and take seeds to plant. Remember to leave some for the birds and to reseed your own garden.



... GARDENING THROUGH THE SEASONS (CONTINUED)

 Winter

Your garden provides shelter and food for creatures and birds. Consider how **colorful shrub branches and berries** can brighten your yard in the dark of winter. The WOCRNY website has a list of native plants with winter visual interest.



 **DID YOU KNOW** Gas leaf blowers are extremely polluting — with a carbon footprint **30 times larger** than a passenger car! Raking is preferred and gentler on insects.

SEASONAL RESOURCES

 [Lessons with the leaves](#)
Wild Ones

 [Fall yard maintenance & pollinators](#)
Greenpeace Canada

 [Guide to seed collecting](#)
Get Busy Gardening

 [Healthy Yards](#)
healthyyards.org

 [Nesting & Overwintering Habitat](#)
Xerces Society (PDF)

 [Warning on shredding leaves](#)
Horticulture Magazine

 [Natives in winter](#)
WOCRNY

 [iNaturalist — identify insects](#)
inaturalist.org

EVERY SEASON GIVES BACK

 Spring

Early nectar for hungry pollinators emerging from dormancy.

 Summer

Full bloom — food webs, bird song, and caterpillar growth.

 Autumn

Leaves shelter larvae; stems cradle next year's bees.

 Winter

Berries feed birds, textures please the eye, habitat persists.

 Section 5 — Your Takeaways

01 Sleep • Creep • Leap

Patience — gardens take 3 years to mature.

03 Leave leaves & stems

Fall habitat — don't shred.

02 Monitor & journal

Walk often — let native caterpillars stay.

04 Messy = healthy

Share seeds at WOCRNY's fall swap.

06

SECTION SIX

Continue Your Native Plant Journey.

Congratulations — and what's next? This section covers getting certified, joining Homegrown National Park, the Wild Ones reading list, and how to keep growing with our community.

You did it!

THROUGH THE WHOLE GARDEN CYCLE



Get certified — Chapter Native Habitat Program (CNHP)

To qualify as a Wild Ones **Certified Native Habitat** through the Chapter Native Habitat Program (CNHP), you should:

- Be an active Wild Ones member.
- Be working toward a goal of at least **75% native plant species** in your managed habitat area.
- Have a garden that supports local wildlife and pollinators.
- Follow regenerative gardening practices — environmentally conscientious approaches to managing and planting gardens and habitats.



Chapter Native Habitat Program — full requirements & application

Wild Ones • wildones.org/cnhp

Your journal supports the certification

JOURNAL • #14

Record these four categories — your journal is the narrative your application builds on.

- **Year of first planting** — when your native habitat began.
- **Your garden's story** — the why and how behind your choices.
- **Native plant inventory** — common and scientific names, source, and what each plant hosts.
- **Non-plant habitat features** — leaves left in place, logs, stumps, water features.



Register with Homegrown National Park

Homegrown National Park helps you understand the biodiversity crisis with a science-based call to action:

“

Add native plants and remove invasive ones everywhere that we live, work, and play.

— HOMEGROWN NATIONAL PARK

Register your garden on the HNP map at homegrownnationalpark.org and add your dot to the movement.



There is so much more to keep learning

On long winter days when you want to garden, there are webinars to watch and books to read.

WOCRNY archive

Our chapter has archived past webinars you can watch anytime.



capitalregionny.wildones.org/past-webinars

National Wild Ones

Recorded webinars by well-known voices in botany, landscape design, and wildlife biology — Doug Tallamy, Robin Wall Kimmerer, Larry Weaner, and others.



wildones.org/category/wild-ones-presents

Wild Ones reading list

A curated collection of books featured in Wild Ones programming — practical resources plus inspiration for a more sustainable life. Purchasing through the Wild Ones page routes a portion of your purchase to Wild Ones and independently owned local bookstores, at no additional cost to you.



bookshop.org/shop/wildonesnativeplants



Once you have embraced native gardening, we hope you will stay involved in this rewarding endeavor — and help grow this modern way of gardening by sharing your enthusiasm.

As a WOCRNY member, there is much more you can learn

- Seed collection and propagation
- Keystone and host plants that attract specific pollinator species
- Making pollinator "puddlers"
- Pruning native shrubs and trees — when, how, and what to leave for wildlife

Wild Ones offers a friendly community dedicated to improving our environment. Join us at a membership meeting, garden tour, hike, or any outreach event. *If you have ideas for further resources, please let us know.*

Happy gardening!

— WILD ONES CAPITAL REGION NY

A NOTE OF THANKS

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