A Connecticut Gardener Reprint

Wicked & Wonderful Weeds

By Michele MacKinnon

PLANTS BECOME WEEDS because people label them as such." This pithy précis by Richard Mabey, author of *Weeds: In Defense of Nature's Most Unloved Plants*, reduces to one sentence our disdain for unwanted, unsuitable plants.

We gardeners are a fickle lot. A "must have" plant one year is relegated to "least wanted" status next season. Opinions evolve as gardens evolve, along with tolerance of a plant's behaviors.

Like Mabey, I'm here to defend weeds. Perhaps a risky undertaking, yet we must remember all plants play a role in a functioning ecosystem. They exist to heal the earth, to keep soil covered, to mine nutrients other plant roots are unable to access and to prevent erosion and water run-off.

They fulfill an important purpose after soil disturbance, handling matters until we have time to address exposed soil under a toppled tree or stream banks scoured clean by floods.

Look for Silver Linings

Today's specious species were the pharmacies of yesteryear. Purslane (*Portulaca oleracea*) is rich in vitamins (having six times more vitamin E than spinach) and omega-3 acid. Native Americans used clearweed (*Pilea pumila*) to soothe irritated skin.

"Plants become weeds because people label them as such." - Richard Mabey

Jewelweed (*Impatiens capensis*) salve alleviates the itch of poison ivy. It seems a contradiction that stinging nettles (*Urtica dioica*) which cause a burning sensation after the briefest contact, relieve swollen joints and numerous other benefits.

Untamed weedy areas were the original butterfly and pollinator gardens.

As habitats shrink and corresponding populations of birds, insects and other creatures decline, weeds fill the survival gap with critical food and shelter.

Migrating monarch butterflies and overwintering insects feast on asters and goldenrod each fall after many nectar and pollen sources have finished flowering. Bumblebees wedge their jumbo jet bodies into jewelweed's orange tubular flowers to gorge on its nectar. Hummingbirds frequent jewelweed patches as well before they journey south for the winter. Numerous wildflowers serve as forage throughout the year.

Where Do They Come From?

Given their unwelcome status, we may shudder to think our actions encourage weeds. These opportunists hitchhike from garden centers to new locations along with potted plants. We track seeds around on our clothes (think burdock) and shoes.

Broadleaf plantain (Plantago major)



Jewelweed (Impatiens capensis)



Lamb's quarters (Chenopodium album)

March/April 2022

was known as "White Man's Footprints" because its seeds spread along settlers' pathways. Animals disperse seeds that stick to fur. Birds are notorious for excreting seeds from their lofty perches.

Strangling vines sprout from the deposits and hide among the dense growth of evergreens. I make a circuit around my property in late summer and cut vines at ground level. It's important to recheck yearly for new or missed culprits. Today's violent storms, global trade and highly mobile populations all result in wider seed dispersal than Mother Nature intended.

A weed seed bank loiters in all soils – a painful lesson learned after my first home purchase, which came without a lawn in the backyard. In preparation for planting grass seed I had the area tilled. In a few short weeks a bumper crop of lambsquarters (*Chenopodium album*) eclipsed the fragile green sprigs cowering at their feet.

Although an uncle enjoyed lambsquarters as a tasty and nutritious cooked green I had enough to grace the tabletops of my entire neighborhood. A common weed in our family's vegetable patch, I had no idea a single plant could spawn 75,000 seeds. Larger plants generate a staggering 500,000 seeds that can remain viable for several decades. What chance does one have against such staggering odds?

As with many situations this is another case of gathering information before deciding how or if to proceed.

Name Them and Know Their Ways

It begins as nothing more than a curiosity – a green specimen with pointy paired leaves arranged along a bristly stem that reaches 16 inches high then delights with a charming yellow flower.

Things soon escalate when the mystery guest appears to be making a land grab. Try the smartphone app Seek by iNaturalist to identify species. Of all the apps I've used, this one is intuitive and provides a fast, highly accurate identification.

A worn copy of *Pest Identification Guide for Weeds, Insects and Diseases of Woody Ornamentals* testifies to frequent use in Master Gardener offices where it helps narrow down or pinpoint



Purslane (Portulaca oleracea)

common weeds in the Northeast.

Try to determine the lifecycle; annual, biennial or perennial, which hints at the suspect's longevity. Annual plants won't return but an abundance of seeds ensure future generations. Lop off flowers or collect seedheads before they ripen to control this group. Some perennials reproduce by seed. Many others have surface runners or underground roots and weave their way around.

Perennials like dandelions (*Tarax-acum officinale*) and Canada thistles (*Cirsium arvense*) produce seeds and store food in their tap roots to help plants survive. Weeds can spread by seed, spreading roots, rhizomes, stolons, tubers and bulbs. Locate and remove all portions of roots, runners, and tap roots to prevent regrowth. Another control method, if time allows, is repeated cutting or smothering. Both methods usually weaken perennials enough to eliminate them.

Read the Signs for Clues

Weeds are vegetative billboards. They advertise what's going on where they've planted themselves. Learning to assess soil and what grows there could prevent wasted time and money, especially if weeds reappear after attempts to grub them out. The best long term results may require fixing the underlying problem.

"Untamed weedy areas were the original butterfly and pollinator gardens."

My soil is heavy clay. It holds onto moisture and nutrients, a bonus during droughts, but a challenge too. Dandelions thrive here (I bet most readers would say the same thing) polka-dotting their way around my perennial gardens and sprouting from the edges of stepping stones. Turns out the golden-haired harbingers of spring favor compacted soil conditions, which I cause by frequent strolls and occasional weeding forays. Equipment worsens compaction, especially lawn mowers that follow the same cutting pattern season after season.

Plantains thrive in the same conditions. They establish small colonies by sinking their short but tenacious roots into the lawn beside our vegetable patch. Pressure exerted on the soil as we sow, tend and harvest our crops, perpetuates the weed cycle in this area of the property.

Sandy, loose soil presents its own challenges. The UConn Extension publication, *Weeds as Indicators of Growing Conditions in Landscapes*, is a good starting point for reading your weeds.

Particular weeds may indicate partic-

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ular issues – soil that is too wet, too dry, too acidic or too alkaline; or a nutrient imbalance – high phosphorous, high calcium, etc. Decipher the signals your landscape is sending with a soil test, which I've nicknamed "the 20/20 solution." For less than \$20 and 20 minutes of time, you can submit a soil sample to the UConn Soil Testing Laboratory in Storrs.

The resulting report is like a doctor's prescription. It indicates quantities and types of soil amendments needed to correct a condition. Otherwise time and money spent may worsen or bring no improvement in the situation.

Think Before You Dig

Limit soil disturbance to limit flushes of weed growth. Tilling the land, turning over soil or leaving soil bare triggers seeds to sprout, thrive and multiply. Remember those lambsquarters? Many weeds originate from seeds in the top

Additional Resources

• Brooklyn Botanic Garden Weed of the Month blog – excellent photos, well written summaries – https://www.bbg.org/gardening/ weed_of_the_month

• Connecticut Gardener magazine May-June 2019 article – Covering Ground by Nancy DuBrule Clemente – https://www.conngardener.com/ may-june-2019-edition

• North Carolina Extension Gardener Handbook, Chapter 6 – A soup-to-nuts guide – https://content.ces.ncsu.edu/ extension-gardener-handbook/ 6-weeds#section_heading_7496

• Pest Identification Guide for Weeds, Insects and Diseases of Woody Ornamentals – an indispensable identification guide for our region – https://umass extensionbookstore.com/products/27

• Purdue University turf grass weed photos and articles – *https://turf.purdue.edu/turfgrass-weeds*

• Weeds of the Northeast – Richard H. Uva, Joseph C. Neal and Joseph M. Ditomaso; another indispensable reference in Master Gardener offices

• Weeds as Indicators of Growing Conditions in Landscapes – UConn Extension – s.uconn.edu/WeedIndicatorsLandscapes inch of soil. Most of the rest stay dormant at depths of two inches or more. It is often faster and easier to dig soil to create new gardens, just be ready for weeds that wake up and say, "Let's party." Thereafter, keep ground covered and dig holes only large enough to add new plants.

Cover Your Bases

Blanket bare surfaces with groundcover plants or mulch. Leaves are a plentiful source of free mulch. Use them whole or chopped to edge gardens and nestle under trees and shrubs or line pathways.

Woody mulch is unsustainable, often dyed and breaks down over time, allowing weeds to move in. Groundcover plants that form tightly woven mats are essentially green living mulches. Bigroot geranium (*Geranium macrorrhizum*), green and gold (*Chrysogonum virginianum*), foam flower (*Tiarella cordifolia*) and creeping thyme (*Thymus lanuginosus*) work well for me. Once established they seldom need replacing, are attractive and offer pollinator benefits. (Leave a few small patches of bare soil for ground-nesting pollinators.)

Timing Is (Often) Everything

Watch for and manage weeds while they're in active growth. "New" or "teenage" specimens are easier to eliminate than established perennials. Again, control seeds or their methods of spreading for a happier future. Don't assume winter shuts work down. Dandelions and plantains heave out of the ground during freeze-thaw cycles,



Dandelion (Taraxacum officinale)

making them easy to grab. Isn't that considerate of them?

Eat, Drink and Be Merry

Add your nemesis to the dinner menu. Start things off with a Chickweed Cocktail (*plantrama.com/the-gardenersrevenge-chickweed-cocktail*) and garlic mustard pesto from author Ellen Zachos (*backyardforager.com/recipes*). Try a wild-foraged salad by Massachusetts author and forager, Russ Cohen (*users.rcn.com/eatwild/bio.htm*). Never sample foraged material if uncertain of a plant's identity or if herbicides were applied nearby.

As we begin another trip around the sun, let us develop a tolerance, if not an appreciation, for the weeds among us. After all, they're working as hard as we are. **%**

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NOFA Accredited Organic Land Care Professional. She studied landscape design at New York Botanical Garden and Berkshire Botanical Garden. Learn more about Michele and her lectures at garden advice.guru.



Michele will present "Wicked and Wonderful Weeds, and What to do About Them!" at the Rowayton Gardeners on April 7 at 10:30 AM.



Plantain (Plantago major)

March/April 2022