



How to (Gently) Fight Plants with Plants (updated spring 2023)

This handout accompanies my presentation on pesticide-free methods of recruiting and nurturing native plants to help suppress or crowd out nonnative plants that are not as helpful to wildlife and the environment. It's also available on my website alongside the article "How to Fight Plants with Plants" (humanegardener.com/how-to-fight-plants-with-plants/).

Low groundcovers that may volunteer in developing garden habitat:

Canadian black snakeroot (*Sanicula canadensis*)
Clearweed (*Pilea pumila*)
Common blue violet (*Viola sororia*)
Enchanter's nightshade (*Circaea lutetiana*)
Fleabanes (*Erigeron annuus*, *Erigeron philadelphicus*)
Honestwort (*Cryptotaenia canadensis*)
Nimblewill (*Muhlenbergia schreberi*)
Three-seeded mercury (*Acalypha rhomboidea*)
White avens (*Geum canadense*)

Low groundcovers to plant in understory or, in some cases, beneath sun-loving wildflowers:

Canada anemone (*Anemone canadensis*)
Elephant's foot (*Elephantopus carolinianus*)
Golden alexander (*Zizia aurea*)
Golden ragwort (*Packera aurea*) – evergreen
Green-and-gold (*Chrysogonum virginianum*)
Lyreleaf sage (*Salvia lyrata*)
Mayapples (*Podophyllum peltatum*): will disappear with onset of heat, so mix in white wood aster, Christmas ferns, woodland stonecrop, wild geranium and other native groundcovers
Phloxes (*Phlox stolonifera*, *Phlox divaricata*)
Pussytoes (*Antennaria* spp.)
Robin's plantain (*Erigeron pulchellus*)
Sedges (*Carex pensylvanica*, *Carex appalachica*, *Carex stricta*, *Carex blanda*, *Carex platyphylla*, and more!)
Violets (*Viola* spp.)
White wood aster (*Eurybia divaricata*)
Wild basil (*Clinopodium vulgare*)
Wild geranium (*Geranium maculatum*)
Wild ginger (*Asarum canadense*)
Wild strawberry (*Fragaria virginiana*)

Ferns that can compete with invasives and/or prevent further encroachment:

Cinnamon fern (*Osmunda cinnamomea*)

Hayscented fern (*Dennstaedtia punctilobula*)
Lady fern (*Athyrium filix-femina*)
Ostrich fern (*Matteuccia struthiopteris*)
Royal fern (*Osmunda regalis*)
Sensitive fern (*Onoclea sensibilis*)

Taller herbaceous plants that can shade or hold the ground and prevent encroachment:

Asters (aromatic aster, smooth aster, frost aster) (*Symphyotrichum* spp.)
Beardtongue (*Penstemon digitalis*)
Bee balm and wild bergamot (*Monarda didyma*)
Blue mistflower (*Conoclinium coelestinum*)
Cup plant (*Silphium perfoliatum*) – listed as not native to Maryland but native to surrounding states
False indigo (*Baptisia australis*)
False nettle (*Boehmeria cylindrica*)
Goldenrods (*Solidago* spp.)
Jerusalem artichoke (*Helianthus tuberosus*)
Jewelweed (*Impatiens capensis*)
Mountain mint (*Pycnanthemum muticum*)
Rudbeckias (cutleaf coneflower, brown- and black-eyed susans) (*Rudbeckia laciniata*, *Rudbeckia triloba*, *Rudbeckia fulgida*)
Maryland senna or wild senna (*Senna marilandica* or *S. hebecarpa*)
Woodland sunflower (*Helianthus divaricatus*)

“Fillers” that volunteer around other plants:

Cinnamon willow herb (*Epilobium coloratum*)
Frost aster (*Symphyotrichum pilosum*)
Nodding spurge (*Euphorbia nutans*)
White vervain (*Verbena urticifolia*)

Grasses that can cast shade, compete, or hold the ground:

Nimblewill (*Muhlenbergia schreberi*)
Purple lovegrass (*Eragrostis spectabilis*)
Purpletop grass (*Tridens flavus*)
Sea oats (*Chasmanthium latifolium*)
Switchgrass (*Panicum virgatum*)
Tufted hairgrass (*Deschampsia cespitosa*) – evergreen

Shrubs/trees and vines that help prevent encroachment by invasive shrubs/vines:

Bayberry (*Myrica pensylvanica*)
Black chokeberry (*Aronia melanocarpa*)
Coral honeysuckle vine (*Lonicera sempervirens*)
Dogwood shrubs (*Cornus* spp.)
Elderberry (*Sambucus canadensis*)
Fragrant sumac (*Rhus aromatica*) and other *Rhus* species
Grapevines (*Vitis* spp.)
Roses, like pasture/Virginia rose and Carolina rose (*Rosa* spp.)

Shrubby St. Johns wort (*Hypericum prolificum*)
Sassafras (*Sassafras albidum*)
Virgin's bower (*Clematis virginiana*)
Virginia creeper vine (*Parthenocissus quinquefolia*) – also makes a great groundcover

Competitions worth instigating, replacing a patch at a time and/or inserting plants directly:

Virginia creeper vs. English ivy
Sea oats/nimblewill/jewelweed/blue waxweed (*Cuphea viscosissima*) vs. Japanese stiltgrass
Eastern woodland sedge vs. Japanese stiltgrass
Golden ragwort/Canadian black snakeroot/clearweed vs. garlic mustard
Coral honeysuckle vs. Japanese honeysuckle, Asian bittersweet (remove and replace)
Honewort/Canada anemone/cup plant vs. goutweed
Jerusalem artichoke vs. burning bushes (that are growing in sun) and mugwort
Mountain mint/obedient plant/common milkweed/black raspberry and/or pokeweed vs. mugwort
Silky dogwoods/gray dogwoods mixed with native groundcovers vs. Bradford pears
Violets vs. mock strawberry
Ostrich ferns and hayscented ferns vs. many nonnative groundcovers

Books with insights on native competition and/or visual inspiration for plant combinations:

Bringing Back the Bush by Joan Bradley
Garden Revolution by Larry Weaner and Thomas Christopher
Planting in a Post-Wild World by Thomas Rainer and Claudia West
The Living Landscape by Rick Darke and Doug Tallamy

Articles and research related to using plants to fight invasives:

“How to Fight Plants with Plants” – humanegardener.com/how-to-fight-plants-with-plants/
“The Plants are Coming Home” (guest blog post/part 2 to article above) – izelplants.com/blog/the-plants-are-coming-home/
“Plant Native Groundcovers & Make America Green Again” – choosenatives.org
“Study provides first evidence of coevolution between invasive, native species” – <https://bit.ly/2TT3qVQ>

Websites helpful in identification and with interesting info about floral and faunal associations:

iNaturalist: inaturalist.org
Go Botany: gobotany.nativeplanttrust.org/
Forest Service/USDA Fire Effects Information System: www.feis-crs.org/feis/
Illinois Wildflowers: www.illinoiswildflowers.info
Ladybird Johnson Wildflower Center: www.wildflower.org/plants
Flora of Virginia app: floraofvirginia.org/
Maryland Biodiversity Project: www.marylandbiodiversity.com/