



Bloom Period	Common Name	Scientific Name	Flower Color	Max. Height	Water Needs	Notes
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	Forbs			(Feet)	L: low; M: medium; H: high	All species are perennials, unless otherwise noted. Max. Height is an average, individual plants may vary.
Early	1 Golden Alexanders	<i>Zizia aurea</i>	yellow	3	H	Host plant for black swallowtail butterfly; shallow nectaries attract small beneficial wasps, bees, and flies
	2 Wild geranium	<i>Geranium maculatum</i>	pink	3	M	Shade-tolerant; provides important spring food for mining, cuckoo, mason, sweat, bumble, and small carpenter bees
Early-Mid	3 Spiderwort	<i>Tradescantia virginiana</i>	blue	3	M	The attractive flowers of this unique iris-relative are frequented by bumble bees and other pollinators; shade tolerant
	4 Blue vervain	<i>Verbena hastata</i>	blue	5	H	A preferred nectar plant for bees, butterflies, hover flies, and bee flies; choose <i>Verbena stricta</i> for drier soils
Mid	5 Narrowleaf mountain mint	<i>Pycnanthemum tenuifolium</i>	white	3	L-M	This and related species have fragrant foliage and nectar-rich flowers; very popular with butterflies, beetles, and more
	6 Swamp milkweed	<i>Asclepias incarnata</i>	pink	5	M-H	Host plant for monarchs; lovely fragrance attracts insects of all kinds; at drier sites use common or butterfly milkweed
	7 Wild bergamot	<i>Monarda fistulosa</i>	purple	4	M	Hawk moths, hummingbirds, and long-tongued bumble bees (such as <i>Bombus pensylvanicus</i>) are common visitors
Mid-Late	8 Boneset	<i>Eupatorium perfoliatum</i>	white	5	H	Flat-topped clusters of fluffy, nectar-rich flowers attract many kinds of insects; tolerant of partial shade and wet soils
	9 Cardinal flower	<i>Lobelia cardinalis</i>	red	4	H	Striking, scarlet-red tubular flowers attract hummingbirds and swallowtail butterflies
	10 Field thistle	<i>Cirsium discolor</i>	purple	6	M	Distinct from invasive, non-native thistles; an important plant for butterflies and bumble bees; grows as a perennial or biennial
	11 Wild golden glow	<i>Rudbeckia laciniata</i>	yellow	7	H	Long bloom period; shade-tolerant; visited by bumble bees and other pollinators; seeds provide food for birds
Late	12 Bottle gentian	<i>Gentiana clausa</i>	blue	2	M	This unique fall flower is almost exclusively pollinated by bumble bees, which pry the petals apart to climb inside
	13 Calico aster	<i>Symphyotrichum lateriflorum</i>	white	3	M	The shallow nectaries attract more insect diversity than some larger-flowered aster species; tolerant of partial shade
	14 Gray goldenrod	<i>Solidago nemoralis</i>	yellow	2	L	Excellent for poor soils where little else will grow; one of the latest blooming goldenrods; visited by many pollinators
	15 New England aster	<i>Symphyotrichum novae-angliae</i>	purple	6	M	One of the latest fall-blooming plants; frequented by honey bees and pre-hibernation bumble bee queens
	16 Wrinkleleaf goldenrod	<i>Solidago rugosa</i>	yellow	3	M-H	Goldenrods are frequented by beneficial solitary wasps, pollen-eating soldier beetles, bumble bees, and much more
	Shrubs and Trees					
Early	17 Highbush blueberry	<i>Vaccinium corymbosum</i>	white/ pink	12	M-H	Well-loved by humans and also provides food for mining bees, mason bees, and long-tongued bumble bees
	18 Pussy willow	<i>Salix discolor</i>	yellow/ green	15	M-H	Silky gray catkins open into flowers that provide spring forage for bees; host plant for mourning cloak butterflies
	19 Raspberry, blackberry	<i>Rubus</i> spp.	white	4+	M	Hollow canes/ prunings make excellent nest sites for cavity-nesting bees; flowers are pollinated by many kinds of bees
Early-Mid	20 American basswood	<i>Tilia americana</i>	cream	60	M	Also called "bee tree" for its abundance of very fragrant, nectar-rich flowers which are extremely attractive to bees
	21 Ninebark	<i>Physocarpus opulifolius</i>	white	8	L	Deciduous shrub with attractive foliage, peeling bark, and white flowers; loved by birds, bees, and butterflies
Mid	22 New Jersey tea	<i>Ceanothus americanus</i>	white	4	M	A magnet for many species of flies, wasps, bees, and butterflies; slow growing and prone to deer browsing
	23 Virginia rose	<i>Rosa virginiana</i>	pink	6	L	Foliage is used by leafcutter bees; flowers provide food for many pollinators; exceptional leaf coloration in the fall
Late	24 Buttonbush	<i>Cephalanthus occidentalis</i>	white	12	H	Host plant for numerous moths and butterflies; pincushion-like flowers are very attractive to butterflies and bees



Planting for Success

Sun Exposure

Most pollinator-friendly plants prefer sites that receive full sun throughout most of the day and are mostly open, with few large trees. A southern exposure can provide the warmest habitat, but is not required.

Plant Diversity

Choosing a variety of plants with overlapping and sequential bloom periods will provide food for pollinators throughout the seasons.

Habitat Size and Shape

Habitat patches that are bigger and closer to other patches are generally better than those that are smaller and more isolated from one another. However, even a small container garden can attract and support pollinators!

Planting Layout

Flowers clustered into clumps of one species will attract more pollinators than individual plants scattered through a habitat patch. Where space allows, plant clumps of the same species within a few feet of one another.

Seeds or Transplants

It is usually cheaper to establish large habitat areas from seed; however, seeding native wildflowers on a large-scale is an art unto itself. For step-by-step instructions, see *Establishing Pollinator Meadows from Seed* and the Pollinator Habitat Installation Guides listed in the Additional Resources section. For smaller areas like gardens, transplants are usually easier to use and will bloom faster than plants started from seed.

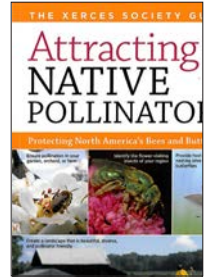
Protect Pollinators from Insecticides

Although dependent on timing, rate, and method of application, all insecticides have the potential to poison or kill pollinators. Systemic insecticides in particular have received significant attention for their potential role in pollinator declines (imidacloprid, dinotefuran, clothianidin, and thiamethoxam are examples of systemic insecticides now found in various farm and garden products). Because plants absorb systemic insecticides as they grow, the chemicals become distributed throughout plant tissues and are sometimes present in pollen and nectar. You can help protect pollinators by avoiding the use of these and other insecticides. Before purchasing plants from nurseries and garden centers, be sure to ask whether they have been treated with insecticides. To read more about threats to pollinators from pesticides, please visit: www.xerces.org/pesticides.

Additional Resources

Attracting Native Pollinators

Our best-selling book highlights the role of native pollinators in natural ecosystems, gardens, and farms. This comprehensive guide includes information about pollinator ecology, detailed profiles of over 30 common bee genera, and habitat designs for multiple landscapes with over 50 pages of fully illustrated regional plant lists. Available in bookstores everywhere, and through www.xerces.org/books.



The Xerces Pollinator Conservation Resource Center

Our Pollinator Conservation Resource Center includes regional information on pollinator plants, habitat conservation guides, nest management instructions, bee identification and monitoring resources, and directories of native pollinator plant nurseries. www.xerces.org/pollinator-resource-center

Lady Bird Johnson Wildflower Center

The Xerces Society has collaborated with the Lady Bird Johnson Wildflower Center to create lists of plants that are attractive to native bees, bumble bees, honey bees, and other beneficial insects, as well as plant lists with value as nesting materials for native bees. These lists can be narrowed down with additional criteria such as state, soil moisture, bloom time, and sunlight requirements. The Center's website also features image galleries, how-to articles on native plant gardening, and more. http://www.wildflower.org/conservation_pollinators/

Establishing Pollinator Meadows from Seed

These guidelines provide step-by-step instructions for establishing pollinator meadows from seed in areas that range in size from a small backyard garden up to an acre. Topics include: site selection, site preparation, plant selection, planting techniques, and ongoing management. www.xerces.org/establishing-pollinator-meadows-from-seed/

Pollinator Habitat Installation Guides

These regional guidelines, developed in collaboration with the USDA's Natural Resources Conservation Service, provide in-depth practical guidance on how to install nectar and pollen habitat for bees in the form of wildflower meadow plantings or linear rows of native flowering shrubs. Region-specific seed mixes and plant recommendations are included in the appendices of each guide. www.xerces.org/pollinator-conservation/agriculture/pollinator-habitat-installation-guides

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