

Keystone Plants Native to Iowa, Northern Missouri and Western Illinois

Keystone plants refer to plants that support the greatest number of moth and butterfly species. Many of these plants, such as oaks, support a great number of other insect orders as well.

Lep = the number of moth and butterfly species in the order of Lepidoptera that feed on the plant.

Pol = the number of pollinating insect species that are specific to the plant indicated. There are many other pollinators that are generalists and pollinate a wide range of plants that are not included in the tally.

Plants selected are historically found in Southeast Iowa and are considered "native". Exceptions noted in the comments are considered "good neighbors".

A few native cultivars are on this list because they are found male species, or are propagated from found trees that are better adapted, heat resistant, or disease resistant.

Green shading indicates plants pollinated by wind instead of by insects.

Trees and Shrubs

Latin Name	Common Name	# Lep	# Pol	Comment
<i>Quercus alba</i>	white oak	275		common to upland forests
<i>Quercus bicolor</i>	swamp white oak	275		can tolerate wet soil
<i>Quercus ellipsoidalis</i>	northern pin oak	275		pyramidal when young, russet-red leaves in fall.
<i>Quercus imbricaria</i>	shingle oak	275		native in southeast Iowa, pioneer species, leaves are not lobed, retained in winter
<i>Quercus macrocarpa</i>	bur oak	275		widespread in prairies and woodlands
<i>Quercus marilandica</i>	blackjack oak	275		native in southern Iowa counties and Missouri
<i>Quercus muehlenbergii</i>	chinkapin oak	275		grows well in alkaline soil, leaves are not lobed, but serrated
<i>Quercus palustris</i>	pin oak	275		pioneer species, pyramidal form when young, holds leaves in winter
<i>Quercus prinoides</i>	dwarf chinkapin oak	275		small, shrubby oak native to southern Iowa
<i>Quercus rubra</i>	red oak	275		tall oak of forests
<i>Quercus stellata</i>	post oak	275		native in southern Iowa counties and Missouri
<i>Quercus velutina</i>	black oak	275		large oak of prairies and savannas
<i>Quercus x bebbiana</i>	Bebb's oak	275		natural cross between white oak and bur oak
<i>Quercus x bushii</i>	Bush's oak	275		natural cross between black oak and blackjack oak
<i>Quercus x leana</i>	lea oak	275		natural cross between shingle oak and black oak
<i>Quercus x runcinata</i>	logue oak	275		natural cross between shingle oak and red oak
<i>Prunus americana</i>	American plum	250	7	Iowa's most common fencerow plum, forms thickets, edible fruit
<i>Prunus angustifolia</i>	chickasaw plum	250	7	native to Missouri, edible fruit
<i>Prunus hortulana</i>	hortulan plum	250	7	native in southern Iowa counties and Missouri, edible fruit
<i>Prunus mexicana</i>	Mexican plum	250	7	native in southern Iowa counties and Missouri, edible fruit

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<i>Prunus munsoniana</i>	wild goose plum	250	7	native to Missouri, edible fruit
<i>Prunus pensylvanica</i>	pin cherry	250	7	native tree in the northern half of Iowa, wildlife like the cherries
<i>Prunus serotina</i>	wild black cherry	250	7	pioneer tree in prairies or found in woodlands, wildlife like the cherries
<i>Prunus virginiana</i>	chokecherry	250	7	common understory tree or along fencerows, forms colonies, wildlife like cherries
<i>Salix amygdaloides</i>	peach-leaf willow	218	14	a common small tree growing near streams
<i>Salix discolor</i>	pussy willow	218	14	large shrub native in most of Iowa, but not Jefferson county
<i>Salix eriocephala</i>	Missouri river willow	218	14	large shrub found along streams
<i>Salix exigua (interior)</i>	sandbar willow	218	14	shrubby, thicket forming willow, grows next to streams
<i>Salix humilis</i>	prairie willow	218	14	medium-sized shrub that grows in prairies
<i>Salix nigra</i>	black willow	218	14	common tree along streams
<i>Betula nigra</i>	river birch	216		heat tolerant and resistant to bronze birch borer, found by streams
<i>Populus deltoides 'Siouxland'</i>	cottonwood	204		cottonless, male form
<i>Populus grandidentata</i>	big-toothed aspen	204		similar to quaking aspen but larger growing with larger leaves
<i>Populus tremuloides 'Prairie Gold'</i>	quaking aspen	204		heat, drought and humidity tolerant cultivar, forms a colony
<i>Pinus strobus</i>	white pine	203		native in northeast Iowa to Muscatine, planted elsewhere
<i>Acer nigrum</i>	black maple	196		better heat tolerance than sugar maple
<i>Acer saccharinum 'Silver Queen'</i>	silver maple	196		stronger leader, better form, tolerates wet or dry soil, seedless male form
<i>Acer saccharum 'Legacy'</i>	sugar maple	196		more heat tolerant cultivar
<i>Malus ioensis</i>	Iowa crabapple	189	20	found at the edge of woods, savannas or prairies, edible fruit
<i>Ulmus americana 'New Harmony'</i>	American elm	153		Dutch elm disease resistant cultivar
<i>Ulmus rubra</i>	slippery elm	153		not as susceptible to Dutch elm disease as American elm, but not immune
<i>Carya cordiformis</i>	bitternut hickory	143		common hickory throughout Iowa, nuts are bitter
<i>Carya illinoensis 'Pawnee'</i>	pecan (protandrous)	143		nuts ripen more quickly, disease resistant, northern hardy,
<i>Carya illinoensis 'Lakota'</i>	pecan (protogynous)	143		nuts ripen more quickly, disease resistant, northern hardy,
<i>Carya laciniosa</i>	shell-bark hickory	143		large, sweet nuts, shaggy bark, native to eastern Iowa border
<i>Carya ovata</i>	shagbark hickory	143		our most common hickory with edible nuts
<i>Carya tomentosa</i>	mockernut	143		native in southeast Iowa, northern Missouri
<i>Carya x 'Burton'</i>	hican	143		natural cross between shagbark hickory and pecan, hardy, large nuts
<i>Tilia americana</i>	American linden	113	22	common forest tree in the eastern half of Iowa
<i>Fraxinus quadrangulata</i>	blue ash	108		has some resistance to emerald ash borer, native along eastern IA border & IL
<i>Crataegus mollis</i>	downy hawthorn	105	15	thorny prairie species, fence rows
<i>Crataegus grus-galli</i>	cockspur hawthorn	105	15	thorny prairie species, fence rows
<i>Rubus allegheniensis</i>	Allegheny blackberry	100	20	common bramble that can spread aggressively, edible fruit
<i>Rubus occidentalis</i>	black raspberry	100	20	widespread bramble, edible fruit
<i>Juglans nigra</i>	black walnut	92		pioneer species in prairies or found in woodlands
<i>Corylus americana</i>	American hazelnut	85		woodland edge, spreading large shrub, edible nuts

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<i>Rosa arkansana</i>	dwarf prairie rose	83	11	low-growing, spreading rose with pink single flower in June
<i>Rosa blanda</i>	smooth rose	83	11	large shrubby rose with pink single flowers in June, nearly thornless
<i>Rosa carolina</i>	pasture rose	83	11	spreading rose with pink single flowers in June
<i>Rosa setigera</i>	climbing prairie rose	83	11	climbing rose with pink single flowers in June
<i>Cornus drummondii</i>	roughleaf dogwood	79	24	spreading large shrub or small tree of forest edge or prairie
<i>Cornus racemosa</i>	gray dogwood	79	24	spreading shrub of the forest edge or prairie
<i>Amelanchier arborea</i>	downy serviceberry	77	14	forest edge tree with edible berries
<i>Viburnum lentago</i>	nannyberry	75	11	large shrub, edible berries
<i>Viburnum rafinesquianum</i>	downy arrowwood	75	11	often found in open woods
<i>Ostrya virginiana</i>	hophornbeam, ironwood	67		understory or forest edge tree
<i>Ribes missouriense</i>	Missouri gooseberry	60	15	thorny, woodland shrub with edible fruit
<i>Vitis riparia</i>	riverbank grape	55	11	wild grape, edible fruit (seedy)
Herbaceous Conservation Plants				
Latin Name	Common Name	# Lep	# Pol	Comment
<i>Solidago canadensis</i>	Canada goldenrod	86	56	very aggressive spreader with golden flowers in late summer
<i>Solidago flexicaulis</i>	zig-zag goldenrod	86	56	woodland goldenrod with yellow flowers in late summer
<i>Solidago missouriensis</i>	Missouri goldenrod	86	56	2 to 3 ft tall, golden flowers mid summer
<i>Solidago nemoralis</i>	gray goldenrod	86	56	grows 2 ft tall, golden flowers in late summer, spreads
<i>Solidago rigida</i>	stiff goldenrod	86	56	clump-forming, upright goldenrod, gold flowers in late summer
<i>Solidago speciosa</i>	showy goldenrod	86	56	showy golden flowers in mid to late summer, spreads, 3 ft tall
<i>Solidago ulmifolia</i>	elm-leaved goldenrod	86	56	woodland goldenrod, 3 ft tall, spreads
<i>Symphyotrichum cordifolium</i>	woodland blue aster	68	43	woodland aster with blue flowers in late summer
<i>Symphyotrichum drummondii</i>	Drummond's aster	68	43	light blue flowers in late summer
<i>Symphyotrichum ericoides</i>	heath aster	68	43	prairie aster with small, but numerous white flowers late summer
<i>Symphyotrichum laeve</i>	smooth blue aster	68	43	prairie aster with blue flowers late summer
<i>Symphyotrichum lanceolatum</i>	white panicle aster	68	43	white flowers in late summer
<i>Symphyotrichum novae-angliae</i>	New England aster	68	43	prairie aster with purple flowers late summer
<i>Symphyotrichum aromaticum</i>	aromatic aster	68	43	prairie aster with violet-blue flowers on mounded plant
<i>Symphyotrichum oolentangiense</i>	sky-blue aster	68	43	light blue flowers in late summer
<i>Symphyotrichum sericeum</i>	silky aster	68	43	light blue flowers in late summer
<i>Grindelia squarrosa</i>	curly-top gumweed		68	biennial with golden daisies in mid summer with a sticky resin, menthol scented
<i>Helianthus grosseserratus</i>	sawtooth sunflower	61	89	tall prairie perennials with golden daisies in late summer
<i>Helianthus pauciflorus</i>	stiff sunflower	61	89	grows 2 to 5 ft tall with golden daisies mid-summer.
<i>Helianthus strumosus</i>	woodland sunflower	61	89	3 feet tall, strong spreader, gold daisies mid-summer.
<i>Helianthus tuberosus</i>	sunchoke	61	89	10 feet tall, strong spreader with gold daisies late summer, edible tubers
<i>Fragaria virginiana</i>	wild strawberry	55	11	low-growing ground cover with red, sweet berries in early summer

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<i>Plantago virginica</i>	pale-seed plantain	44	2	small, annual plant found in disturbed areas
<i>Pycnanthemum tenuifolium</i>	narrow mountain mint		34	narrow foliage with a minty fragrance, small white flowers in summer
<i>Pycnanthemum verticillatum</i>	whorled mountain mint		34	fuzzy, minty foliage with small white flowers in summer
<i>Pycnanthemum virginianum</i>	common mountain mint		34	minty fragrant foliage, small white flowers in summer
<i>Verbesina alternifolia</i>	wingstem		34	grows 4-6 ft tall in woodland or savanna, lax habit, yellow daisies in late summer
<i>Poa palustris</i>	fowl meadow grass	32		native grass found along streams, wetlands and moist meadows
<i>Poa sylvestris</i>	woodland bluegrass	32		low-growing native woodland grass
<i>Rudbeckia subtomentosa</i>	sweet coneflower		32	grows 3-5 ft tall in prairies, yellow daisies with dark centers in late summer
<i>Erigeron philadelphicus</i>	common fleabane		30	short-lived perennials with light pink to white daisies in early summer, 2-3 ft tall
<i>Eupatorium altissimum</i>	tall boneset	30	22	4 to 6 ft tall with flat-topped white flowers in late summer
<i>Eupatorium perfoliatum</i>	common boneset	30	22	4-5 ft tall with flat-topped white flower mid to late summer
<i>Coreopsis palmata</i>	prairie tickseed		27	2 ft tall with gold flowers in June and July.
<i>Amorpha canescens</i>	lead plant	26	8	silvery-green fine-textured foliage, purplish spiked flower
<i>Ipomoea pandurata</i>	wild potato vine	25	7	trailing or twining vine with white flowers
<i>Persicaria virginiana</i>	jumpseed	24	4	woodland ground cover, often with chevron marking on the leaves
<i>Viola sororia</i>	common violet	24	2	low-growing woodland plant with violet flowers in May
<i>Cirsium altissimum</i>	tall thistle	21	30	native, biennial spiny plant, 5 to 7 ft tall, magenta flowers in summer
<i>Cirsium discolor</i>	field thistle	21	30	native, biennial spiny plant, 5 to 6 ft tall, magenta flowers in summer
<i>Packera aurea</i>	golden groundsel		22	spreading semi-evergreen foliage with yellow flowers in spring
<i>Carex blanda</i>	woodland sedge	20		low-growing, common woodland sedge
<i>Carex brevior</i>	plains oval sedge	20		common sedge of prairies
<i>Carex pensylvanica</i>	oak sedge	20		common low-growing woodland sedge
<i>Carex rosea</i>	rosy sedge	20		common low-growing woodland sedge
<i>Carex sprengei</i>	long beak sedge	20		2 ft mound with pendulent seed heads, adapted to woodlands or savannas
<i>Carex stricta</i>	tussock sedge	20		common wetland sedge
<i>Carex vulpinoidea</i>	fox sedge	20		grows 2 feet tall, adaptable sedge for woodlands or savannas
<i>Panicum virgatum</i>	switchgrass	20		common prairie grass, grows 4 to 7 feet tall, with fluffy inflorescens
<i>Geranium maculatum</i>	wild geranium	20	10	woodland plant that forms colonies with pink flowers in May
<i>Mentha arvensis</i>	wild mint	20	3	1-2 ft tall grows in dappled shade or sun, pinkish flowers, minty foliage
<i>Bidens aristosa</i>	bearded beggarticks		16	3-4 ft tall annual with yellow flowers in late summer, likes moisture
<i>Dalea purpurea</i>	purple prairie-clover		14	purple spiked flowers in summer
<i>Ratibida pinnata</i>	gray-headed coneflower		14	yellow daisies in mid summer, 4 ft tall
<i>Astragalus canadensis</i>	Canadian milk-vetch		13	ivory flowers in summer, 2-3 ft tall
<i>Agastache foeniculum</i>	anise hyssop		12	native in northern Iowa, planted elsewhere, long-blooming purple spiked flowers
<i>Agastache nepetoides</i>	giant yellow hyssop		12	4-5 ft tall, yellow-green spiked flowers
<i>Agastache scrophulariifolia</i>	giant purple hyssop		12	4-5 ft tall, purple spiked flowers
<i>Heliopsis helianthoides</i>	oxeye false sunflower		12	golden daisies appear mid summer on 4-5 ft plants

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<i>Verbena hastata</i>	swamp verbena		12	short-lived perennial 3-4 ft tall with blue-purple spiked flowers in late summer
<i>Verbena stricta</i>	hoary vervain		12	purple terminal panicles in summer, 2-4 ft tall
<i>Vernonia fasciculata</i>	prairie ironweed		12	3-4 ft tall with deep purple flowers in late summer
<i>Zizia aurea</i>	golden Alexanders		11	golden umbels in late spring, 1-2 ft tall
<i>Eryngium yuccifolium</i>	rattlesnake master		11	global to domed white flowers in mid summer, yucca-like foliage 3-5 ft tall
<i>Oenothera biennis</i>	common evening primrose		11	3 ft tall biennial with yellow flowers in summer
<i>Oenothera pilosella</i>	prairie sundrops		11	yellow flowers in June, 18-14 inches tall
<i>Penstemon digitalis</i>	foxglove beardstongue		11	white flowers in June resemble foxglove, foliage semi-evergreen
<i>Echinacea pallida</i>	pale purple coneflower		10	thin petaled light pink daisy flowers in mid summer, 4 ft tall
<i>Helenium autumnale</i>	sneezeweed		10	yellow flowers in mid summer, 4-5 ft tall, grows in moist soils
<i>Monarda fistulosa</i>	wild geranium		10	lavender pink flowers mid summer, aromatic foliage 3-4 ft tall

References: 'Bringing Nature Home' by Doug Tallamy, 'Pollinators of Native Plants' by Heather Holm, The National Wildlife Federation Website, Illinois Wildflowers Website by John Hilty