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# **Ohio Trees for Bees**

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Many people are concerned about the health and survival of bees, including honey bees, native bumble bees and the hundreds of lesser-known native and wild bees that call Ohio home. Bees are threatened by an assortment of factors such as pests, pathogens, pesticides, climate change and a lack of nesting habitat and forage plants.

Bees and flowering plants have a critical relationship. Flowering plants provide nectar and pollen for a bee's diet. Pollen is an essential source of protein for developing bee larvae, and nectar provides a carbohydrate source. Honey bees convert nectar into honey by adding an enzyme which breaks down the complex sugars into simple sugars. Bees, in turn, transport pollen from flower to flower as they forage, allowing for plant fertilization and the production of seeds and fruit.

While trees provide many well-known ecological benefits, the importance of trees as a source of food for bees is sometimes overlooked. Ohio trees can provide food for bees from early spring through late summer, with most tree species in Ohio blooming in spring and early summer. This fact sheet describes some of the Ohio trees that provide food for bees. Trees included in this list have been described as important by multiple researchers and bee experts.

Other trees not listed here can also provide food for bees. For example, Ohio horticultural experts have noted significant bee foraging activity on trees such as Carolina silverbell (*Halesia carolina*), seven-son flower (*Heptacodium miconioides*), goldenrain tree (*Koelreuteria paniculata*) and Japanese pagoda tree (*Styphnolobium japonicum*) in landscape settings.

Consider selecting from this list of trees when choosing species to plant in urban, landscape and rural settings.

	<i>Latin Name</i> Common Name	Pollen/ Nectar	Native (Na) and/or Intro- duced	Season of Bloom	About This Tree
1	<i>Acer</i> spp. Maple, Boxelder	PN	Na,I	ESP, SP	Silver and red maples provide important early season sources of nectar and pollen for overwintering bees, particularly during warm springs when bees are flying.
2	<i>Aesculus</i> spp. Buckeye, Horsechestnut	PN	Na,I	SP	Also visited by hummingbirds.
3	<i>Alnus</i> spp. Alder	Ρ	Na,I	ESP	Wind-pollinated but visited by bees for pollen in early spring if weather is favorable.
4	<i>Amelanchier</i> spp. Serviceberry	PN	Na	ESP, SP	Several species native to North America.
5	<i>Catalpa</i> spp. Catalpa	PN	Na	SP, ESU	Visited by bees during the day and by moths at night. Extrafloral nectaries on leaves.

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6	<i>Celtis occidentalis</i> Common Hackberry	PN	Na	SP	Flowers in spring while leaves are emerging.
7	<i>Cercis canadensis</i> Red Bud	PN	Na	SP	Attractive to an assortment of bees.

8	<i>Cladrastis lutea</i> Yellow Wood	N	Na	ESU	Attractive nectar source but inconsistent bloom from year to year.
9	<i>Cornus mas</i> Corneliancherry dogwood	PN	I	ESP	An introduced ornamental tree with early-season flowers.
10	<i>Corylus americana</i> Hazelnut	Ρ	Na	ESP	Wind-pollinated but visited by bees for pollen.
11	<i>Crataegus</i> spp. Hawthorn	PN	Na	SP	Many species, with wide appeal to bees.
12	<i>Diospyros virginiana</i> Persimmon	Ν	Na	SU	Nectar flow may be brief.
13	<i>Fraxinus</i> spp. Ash	Ρ	Na	SP	Wind-pollinated but visited by bees for pollen.
14	<i>Gleditsia</i> <i>triacanthos</i> Honey Locust	PN	Na	SP	Brief nectar flow.

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15	<i>Lirodendron tulipifera</i> Tulip Poplar	PN	Na	SP	Rich nectar source.
16	<i>Magnolia</i> spp. Magnolia	Ρ	Na,I	ESP, SP	Many ornamental selections offer a minor pollen source in spring.

17	<i>Malus</i> spp. Apple, crab apple	PN	Na,I	SP	Important spring nectar and pollen source.
18	<i>Nyssa sylvatica</i> Black gum	Ν	Na	SP	Dioecious (separate male and female plants), good nectar source.
19	<i>Oxydendrum arboreum</i> Sourwood	Ν	Na	SU	Best grown in moist acidic soils. Not tolerant of urban conditions.
20	Prunus spp. (cultivated) Cherry, Plum, Peach, Apricot, cultivated	PN	1	ESP, SP	Important spring nectar and pollen source.
21	<i>Prunus</i> spp. (native) Wild Cherry ( <i>P. serotina</i> ) and others	PN	Na	ESP, SP	Many native Prunus species are important, such as <i>P. virginiana, P.</i> <i>pensylvanica</i> and <i>P.</i> <i>americana</i> .

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22	<i>Ptelea trifoliata</i> Hop tree	Ν	Na	ESU	Visited by many bees for nectar.
23	<i>Pyrus communis</i> Pear	PN	I	SP	Abundant pollen producer.
24	<i>Quercus</i> spp. Oak	Ρ	Na,I	SP	Wind-pollinated but also visited by bees for pollen.

25	<i>Robinia pseudoacacia</i> Black Locust	PN	Na	ESU	Rich nectar source but variable from year to year.
26	<i>Salix</i> spp. Willow	PN	Na,I	ESP	Important early-season source of nectar and pollen, including <i>Salix</i> <i>discolor</i> (pussy willow) and <i>Salix nigra</i> (black willow).
27	Sassafras albidum Sassafras	PN	Na	SP	Dioecious (separate male and female plants).
28	<i>Tilia</i> spp. Basswood, Linden	PN	Na,I	SU	Rich nectar source.
29	<i>Ulmus americana</i> Elm	Ρ	Na	SP	Wind-pollinated but visited by bees for pollen.

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When more than one species of the same genus is useful, the genus name is followed by "spp."

 ESP: Early Spring
 SP: Spring
 ESU: Early Summer
 SU: Summer

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