



**Bee City USA:
The Role of the Parks and Recreation
Advisory Board**

Kerry Rappold, Natural Resources Manager
Parks and Recreation Advisory Board Meeting
July 11, 2024

Outline

- Bee City USA
- Role of the Parks and Rec. Advisory Board
- Bee Stewards
- Partnerships, Projects & Outreach
- Integrated Pest Management

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- ✓ A Bee City committee to advocate for pollinators
 - ✓ Create and enhance pollinator habitat on public and private land
 - ✓ Reduce the use of pesticides
 - ✓ Incorporate pollinator-conscious practices into city policies and plans
 - ✓ Host pollinator awareness events
 - ✓ Publicly acknowledge Bee City USA affiliation with signs and an online presence
 - ✓ Pay an initial application fee and annual renewal fee
 - ✓ Annually apply for renewal and report on the previous year's activities

Role of Parks and Recreation Advisory Board

- Provide a committee to advocate for pollinators
- Serve as a sounding board for projects and activities
- Act as a channel of communication for the general public
- Encourage participation by individuals and citizen groups





Bee Stewards Wilsonville

RESTORE, PROTECT, EDUCATE

Pollinators need your help. Join us in making a difference.



City of
Wilsonville
in Oregon

Protecting Our Pollinators

Bee Stewards Wilsonville



Long-horned bee (*Melissodes* sp.) on a great northern aster (*Canadianthus modestus*)
photo: Matthew Shepherd

Our Pollinators

Did you know that there are about 5,200 native bee species in North America?

NATIVE SOLITARY BEES: Solitary bees live for about a year and each female creates and provides for her own nest. **Tunnel-nesting bees** adopt a space in a hollow tube and make cells for their offspring with materials they collect, such as leaf pieces, tree resin or mud. **Ground-nesting bees**, like the long-horned bee above, dig nests in bare or sparsely vegetated soil. Most ground-nesting bees smooth the cell walls of the nest with their abdomens and apply a waxy substance they produce.



Brown-belted bumble bee | photo: Matthew Bezier

NATIVE SOCIAL BEES: Bumble bees are social and live in small, annual colonies. The queen emerges from hibernation to found the colony in early spring. She rears the first generation of workers, but then gets help with foraging and tending for her offspring.



Western tiger swallowtail | photo: Sandy Harter

OTHER POLLINATORS: Butterflies and moths, non-native honey bees, flies, beetles, ants, bats, and hummingbirds are also important for pollination and a robust ecosystem.



Indian Plum (*Oemleria cerasiformis*) One of the earliest natives to leaf out and bloom each spring, Indian Plum is charming with its white flowers.



Pacific Ninebark (*Physocarpus capitatus*) White, cup-shaped flower heads are attractive to birds, bees and butterflies when they bloom in late spring.



Mack Orange (*Philadelphus Lewisii*) Discovered by Meriwether Lewis, mock orange is named for its delicious orangey scent, attractive to bees and humans alike.



Douglas Spirea (*Spirea douglasii*) Mid-summer fragrant pink to purple flower plumes attract both bees and butterflies.



Thimble Berry (*Rubus parviflorus*) Clusters of showy white flowers result in tart, red, edible fruits, prized by birds and humans alike.

Planted Here

Earliest blossoming at top to latest at bottom

Threats

Bees and other pollinators are an important part of the ecosystem. We wouldn't have most of our fruits, vegetables and wildflowers without them. Pollinators currently face many threats including habitat loss, pesticide use, parasites and disease, and climate change. The City of Wilsonville is committed to restoring and expanding pollinator habitat and safeguarding pollinator health.

How to Help

PROVIDE FOOD SOURCES: Plant spring-, summer- and fall-blooming species to provide nectar and pollen over three seasons. Many bees will only visit one type of flower per foraging trip, so planting in clusters makes the flower easy to see and efficient for collecting pollen. Plants with large, lobed lower petals have ideal landing pads for our bigger native bumble bees. Alternately, any plant with clusters of tiny flowers with exposed nectaries are a good choice for tiny native bees that lack long tongues. Many native butterflies rely on specific flowers, such as milkweed, as hosts.

PROVIDE HABITAT FOR NESTS: Leave a little mess! Hollow stems from plants like raspberries and *Echinacea* provide habitat for tunnel nesting bees. Provide some bare dirt without mulch for ground-nesting bees.

AVOID PESTICIDE USE WHEN POSSIBLE: Pesticides can kill pollinators directly, reduce their ability to reproduce and kill the plants they need for survival.



PATIO

dimensions: 5' x 4.5'



key:



Blue-eyed Grass
(5) 1 gallon



Meadowfoam
(2) seed packs



Sea Thrift
(10) 1 gallon



stone basin
10"x12"
holds water
for pollinators

Funded by the Wilsonville-Metro Community Enhancement program

COURTYARD

dimensions: 45' x 4.5'



key:



Beach Daisy
(3) 1 gallon



Douglas Aster
(3) 1 gallon



Flowering
Currant
(2) 2 gallon



Great Camas
(12) 1 gallon



Kinnickinnick
(3) 1 gallon



Monkey Flower
(3) 1 gallon



Mountain
Avens
(6) 1 gallon



Ocean Spray
(2) 2 gallon



Oregon
Sunshine
(3) 1 gallon



Pacific
Ninebark
(2) 2 gallon



Showy
Milkweed
(14) 1 gallon



Spirea
(2) 2 gallon

Funded by the Wilsonville-Metro Community Enhancement program

Bee Stewards Pollinator Toolkit



Long-horned bee (*Melissodes* sp.) on great northern aster (*Canadanthus modestus*) | Photo: Matthew Shepherd

A guide to attracting and sustaining pollinators

March 2018



sustinea



FORAGE FOR POLLINATORS

Gardens play a critical role in supplying forage, shelter, and nest sites for pollinators as they navigate urban and fragmented landscapes. Native plant selection is incredibly valuable for birds, bees, butterflies, and many more flying insects that have coevolved with native plants, and whose pollinating habits sustain food systems. Filling your garden with a rich and dynamic community of flowering shrubs, perennials and annuals will bring constancy, flavor, and year-round refuge for pollinators in your garden.



1 Aster **2** goldenrod **3** fireweed and **4** lupine are native perennial wildflowers with long bloom periods, making them dependable nectar sources for bees, butterflies, moths, and birds. The billowy foliage and rigid stems of aster and goldenrod are especially valuable overwintering habitat for insects.

5 Herbs like sage play an important role in supplying forage for pollinators in the garden. Bees and butterflies harvesting nectar from the flowers are easily protected beneath the full, aromatic foliage.

6 *Clarkia* and **7** poppy will naturally reseed, prolonging their bloom span from spring into summer.

8 Flat clusters of Western yarrow blossoms provide a soft landing pad for butterflies and beneficial pest-eating insects like ladybugs, who spend long periods of time foraging from all of the flower heads.

9 Bumblebees will continue to forage for nectar from grand collomia cones late in the season after the petals have dropped.

10 Evening primrose blooms at dusk, providing a nectar source for nighttime foraging insects like nocturnal moths.

11 Early flowering shrubs like ceanothus **12** serviceberry and **13** red-flowering currant are important nectar and pollen sources for hummingbirds that migrate and native bees that emerge in spring. The foliage also provides food for insects, birds, and butterfly larvae.

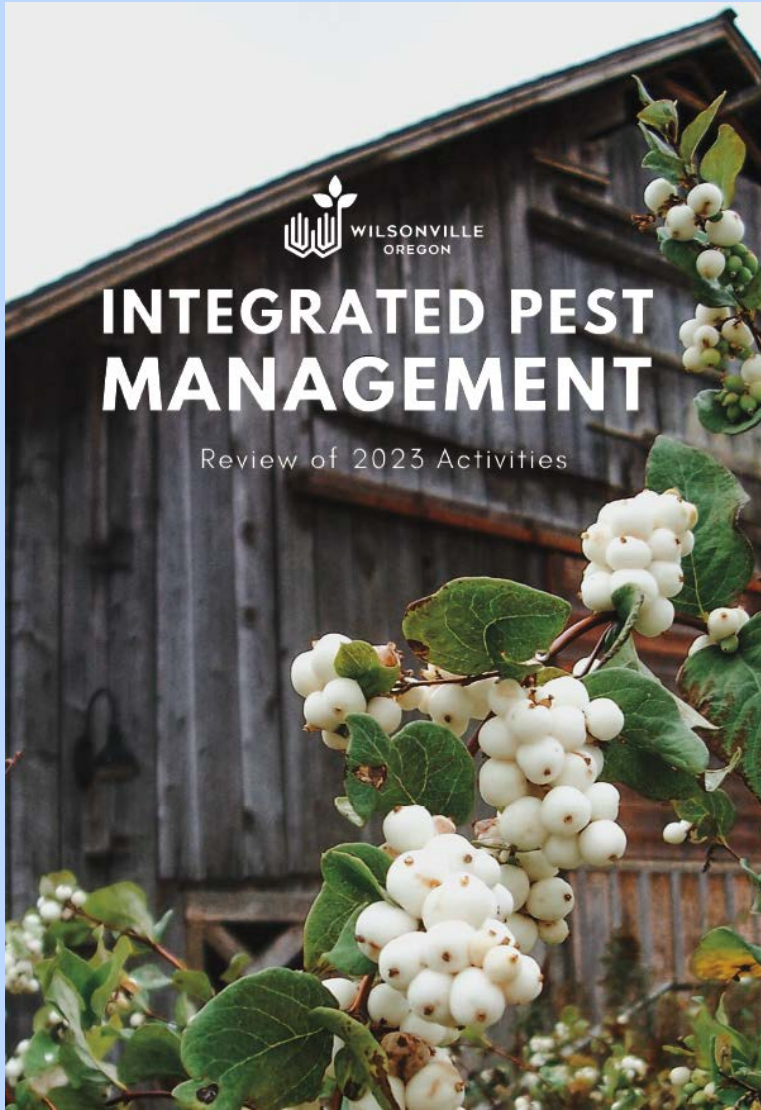
14 Milkweed is a host plant for several moths and butterflies, including **15** monarchs, whom as caterpillars depend on milkweed leaves as their sole food source. Milkweed blooms in early summer.

16 In winter, milkweed pods dry and crack open, allowing the wispy white 'coma' to catch in the wind and carry seeds to the ground. Hummingbirds will line their nests with the soft plume.

L.H.K. Russell. 1999. Landscaping for Wildlife in the Pacific Northwest. Tallery, Douglas W. Bringing Nature Home. Xerces Society. 2016. Gardening for Butterflies.

Integrated Pest Management

- **Prevent** pest issues in the first place
- **Monitor** and correctly identify pests
- Deal with problems **early**
- Establish **thresholds** of action
- Try **non-hazardous approaches first**
- **Pesticides are a last resort**



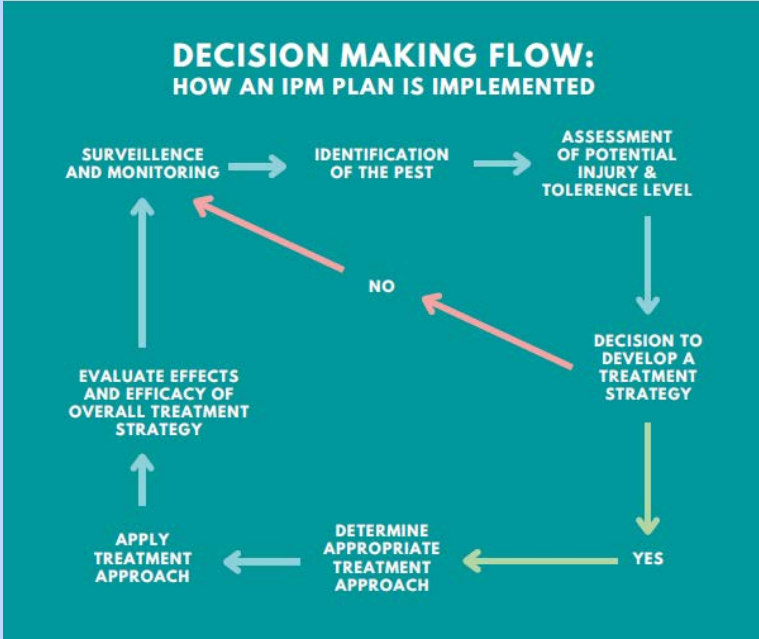
INTEGRATED PEST MANAGEMENT (IPM)



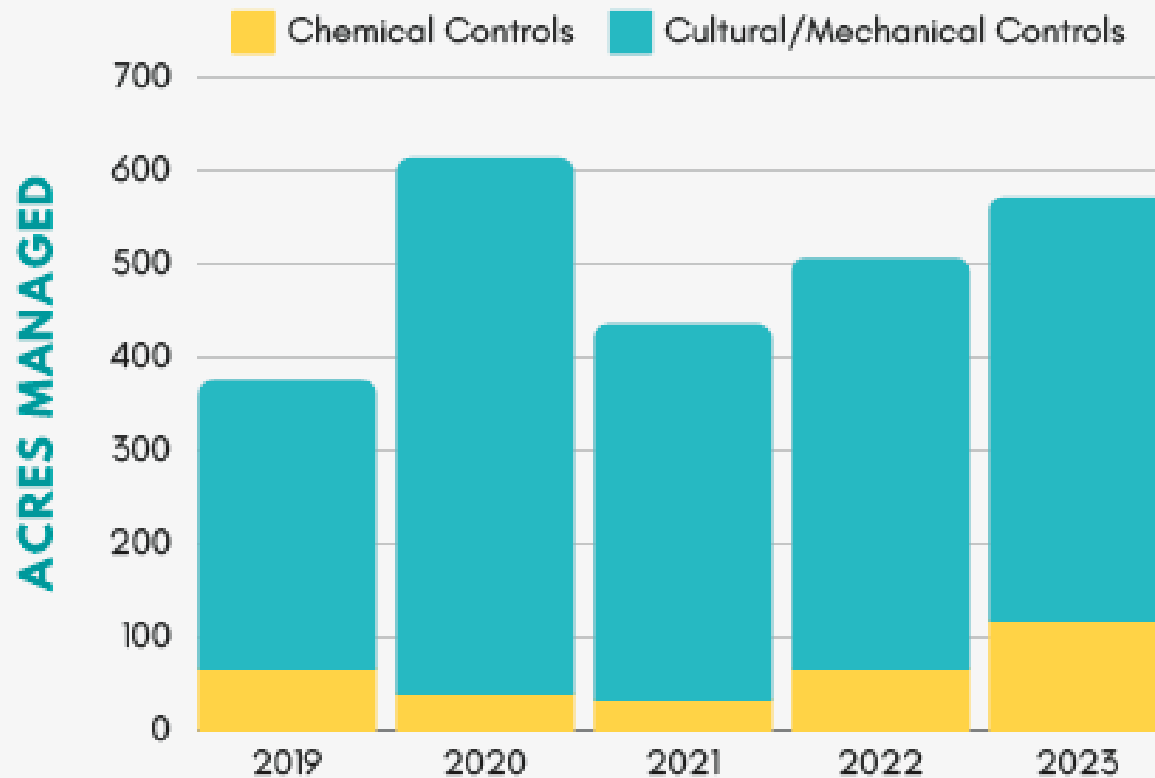
The City of Wilsonville recognizes the importance of sound environmental stewardship. The City is committed to optimizing management practices that protect the people and the environment, including surrounding facilities, parks, and infrastructure maintained by City staff.

Pests can be a troublesome and persistent problem. Choosing the appropriate response requires careful planning and treatment to ensure a successful result. Whether the target pest is a plant, insect, or animal, the City's response considers public safety, environmental health, and available resources.

Integrated Pest Management (IPM) at its core is a decision making process. IPM offers a broad-based approach that relies on common-sense practices that reduce the risk associated with pest treatment. An IPM Plan identifies management areas, key pests of concern, and outlines a treatment strategy mindful of pest biology and available resources.



PEST CONTROL PRACTICES





City of
Wilsonville
in Oregon

Questions

