

Trees for Bees



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Center for Integrated Pest Management

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Tips for Participants

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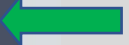
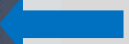
Trees for Bees



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Questions

Ask the staff a question

Exit Send

A close-up photograph of a bee on a green flower with yellow stamens. The bee is positioned on the left side of the frame, facing right. Its body is covered in fine hairs, and its wings are partially visible. The flower's stamens are numerous and bright yellow, contrasting with the green petals. The background is a soft, out-of-focus green.

Continuing
Education
Credits



Mike Connor

- Owner, Honeytree Nursery, ISA Certified Arborist, Nursery Grower, and experienced Beekeeper
- Provides arborist services, IPM for trees, and workshops on beekeeping and pollinator trees
- Co-founder, Grand Rapids (MI) Area Bee Club and former Municipal Arborist and Park Superintendent
- Graduate, Cornerstone University; Post-graduate studies, Michigan State University

Trees for Bees

Michael Connor

honeytreenursery@yahoo.com

Honeytreenursery.com





Arborist

A Tree Physician, Not a Tree Mortician

Nursery Grower



Beekeeper

- First 4-H hive in 1966. Grew to 200 hives
- Dadant Bee Supply Branch Manager
- Co-Sponsor, Grand Rapids Bee Club



“Bees are the preeminent pollinators in North America. Pollinators are a keystone species group; the survival of a large number of other species depends upon them.”

Attracting Native Pollinators, The Xerces Society Guide, p11



What Are Major Problems Facing Pollinators?



Pests and Diseases



Pesticides





Plants:
Forage and Nutrition



While native bees are often superior pollinators compared to honeybees for many plants, low populations of natives and large commercial requirements make honeybees the most vital pollinators in the world.

One-third of our food supply is directly dependent on honey bee pollination.





It is vitally important to agriculture that large populations of pollinators be available when needed.

The honey bee provides the bulk of this service.





Only honey bees overwinter in substantial numbers and can increase populations quickly ***if pollen and nectar resources are available.***



A typical colony of honey bees in the Midwest perform more than a billion flower visits annually, gathering 600 pounds of honey and 55 pounds of pollen.



“Floral resource competition can be virtually eliminated if we improve habitat for pollinators.”

Becky Masterman & Bridget Mendel

Bee Culture, February 2024, p39



This is great habitat and food source for native bees.

It's a pollinator meadow.

- Native plants
- Continuous, consecutive blooms
- Nesting habitat



Unfortunately, this beautiful meadow will not support even one hive of honey bees!

- How much nectar is here?
- How many pounds of pollen?



This is a better meadow!



Trees are Meadows in the Sky!

Trees, not wildflowers,
provide the first significant
food of the spring.

They beat dandelions by 6
weeks.



February









Red Maple



Red Maple









In the midwest, the two most important plants for spring colony build-up are:

Maples,
especially red maples
(*Acer rubrum*)

>25% of all pollen collected in April

Willows,
especially pussy willow
(*Salix discolor*)

>33% of all pollen collected in April



Red Maple (*Acer rubrum*)



Pussy Willow

(*Salix discolor*)

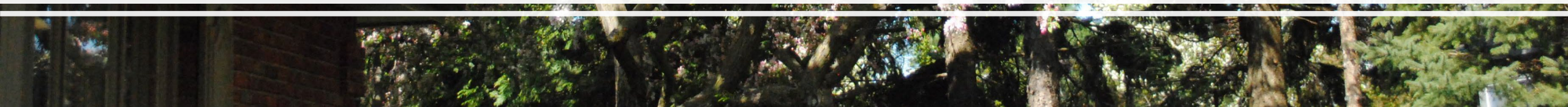


Fruit Trees





Crabapple







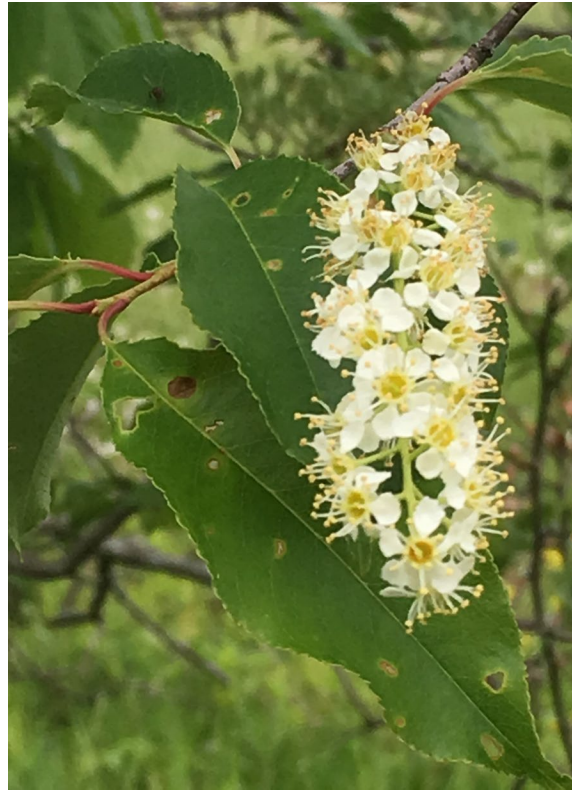
Orchard and Ornamental Cherries

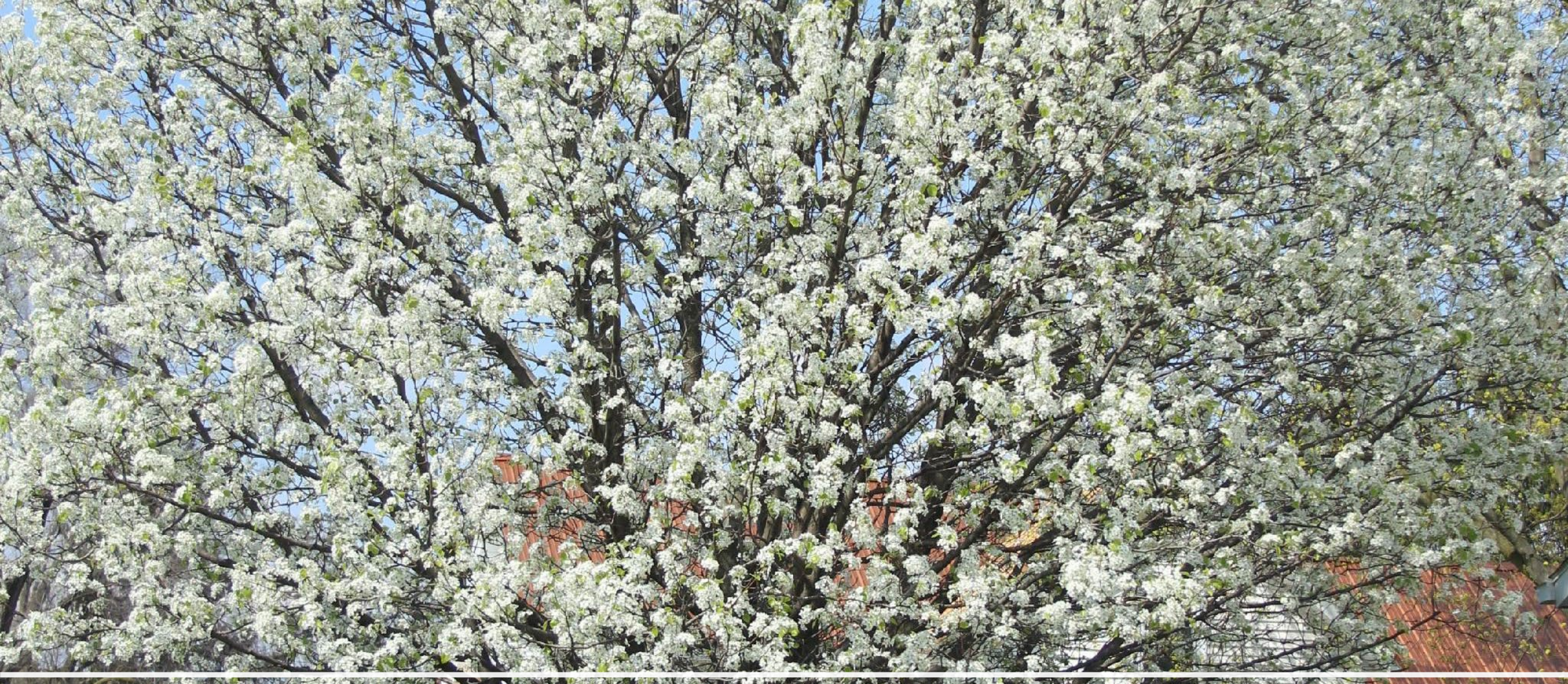




Native Cherries

Attractive to native bees, not necessarily honey bees.





Ornamental Pear





Sumac

A misunderstood plant.

Important to bees and wildlife.

Generally regarded as weeds,
junk, or worse, as poison!

They are not.



Smooth Sumac



Staghorn Sumac



Winged Sumac







Flame Sumac

(Winged Sumac, Dwarf Sumac)

Rhus copallina

*“The highest density of bees on flowers
I have ever observed.”*

- Peter Lindtner, Garden Plants for Honey Bees, p. 374

Blooms mid-summer, when there is
often a nectar dearth.

A low-angle photograph looking up at a Black Locust tree in full bloom. The tree's branches are covered in dense clusters of small, white flowers. The leaves are green and pinnate. The sky is a clear, bright blue. The text "Black Locust" is overlaid in the center of the image.

Black Locust

Black Locust





Autumn Olive



Tulip Poplar



American Basswood

At the turn of the last century, basswood trees produced more honey than any other plant or tree in the United States.



American Basswood (*Tilia americana*)



white sweet clover

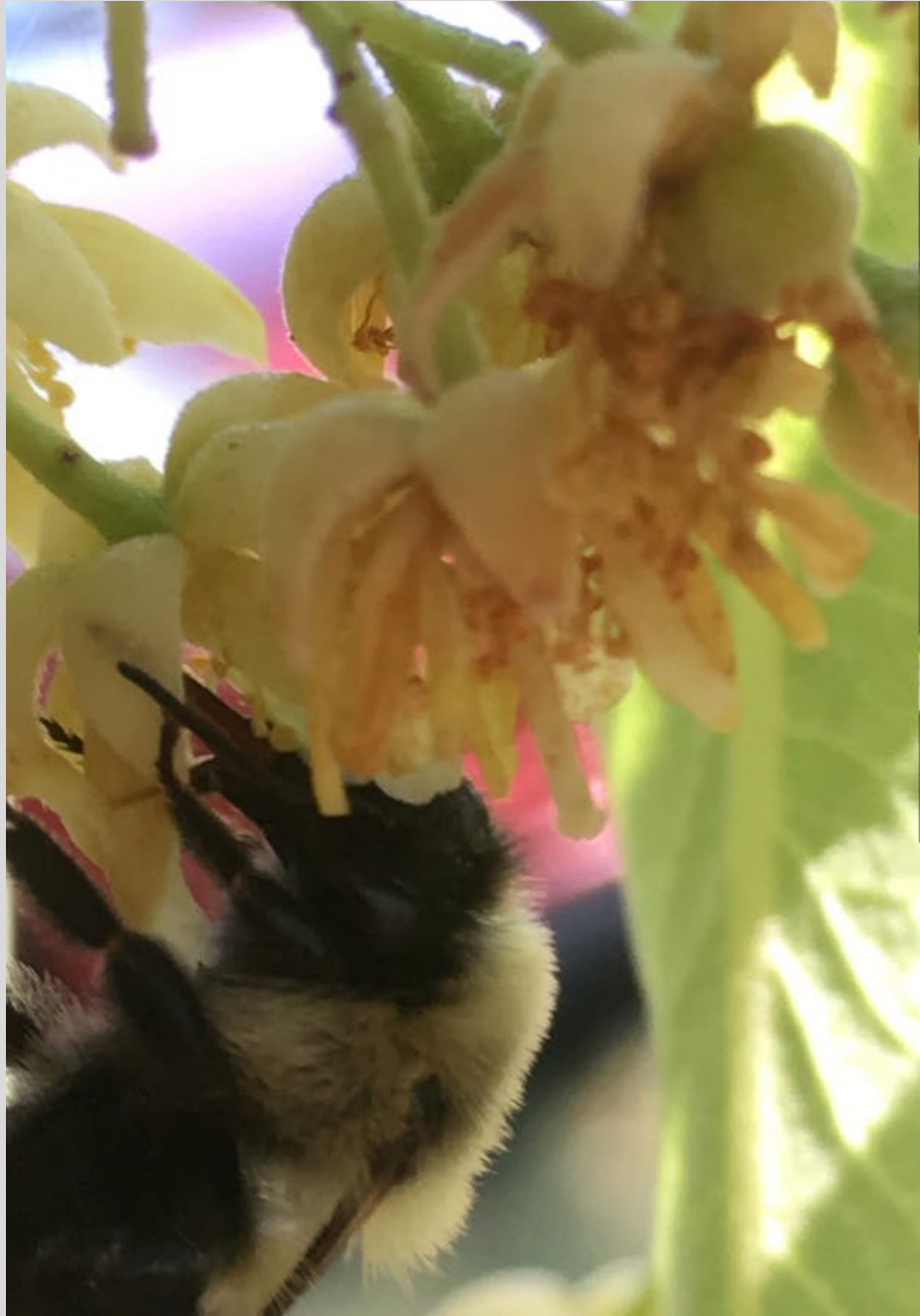


American basswood

The potential honey crop is more than 1,000 lbs per acre.

Pollen Grains & Honeydew by Margaret Anne Adams. p 198

(Clover has a potential yield of 250 pounds per acre)



Silver Linden



Little Leaf Linden



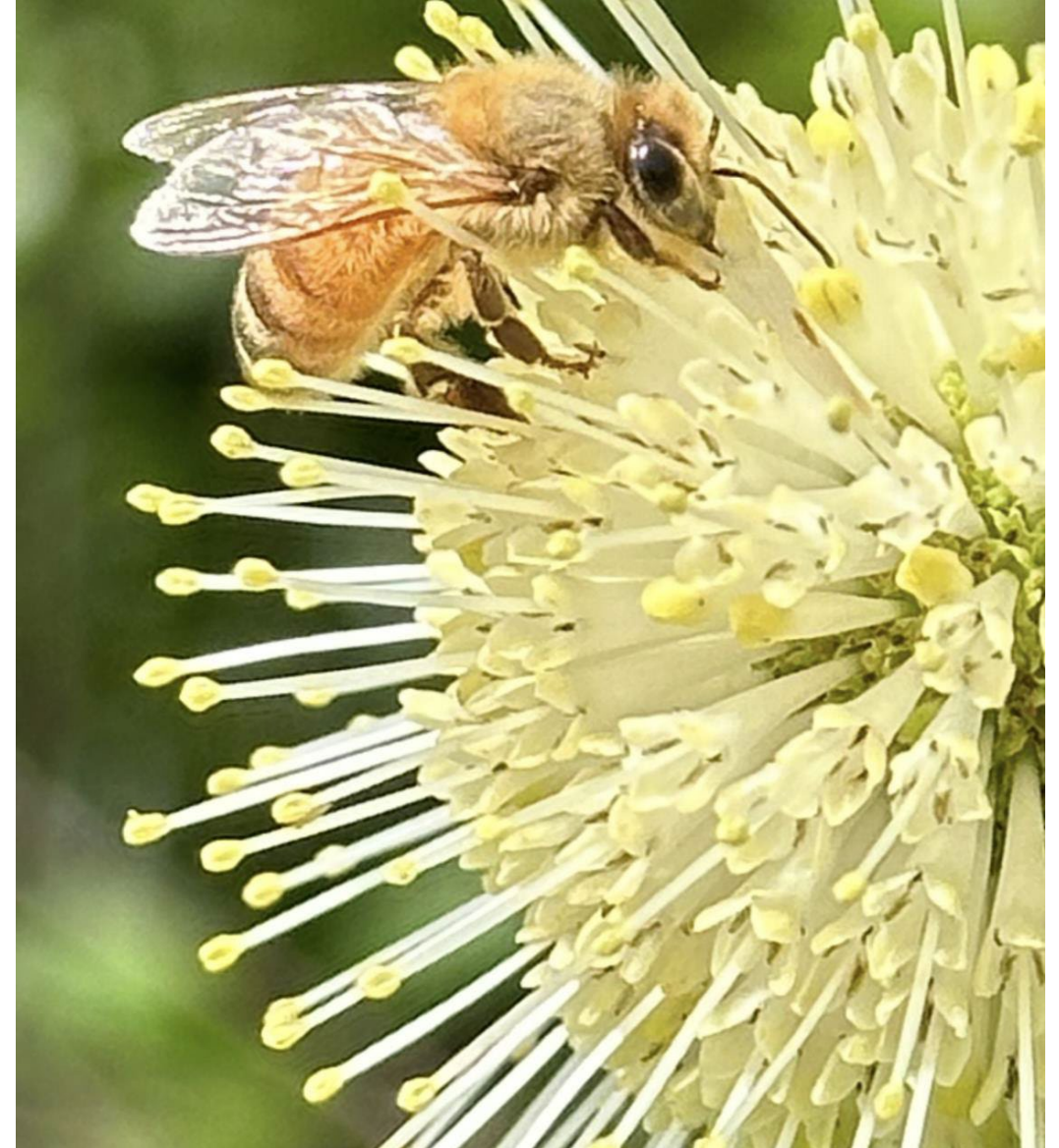
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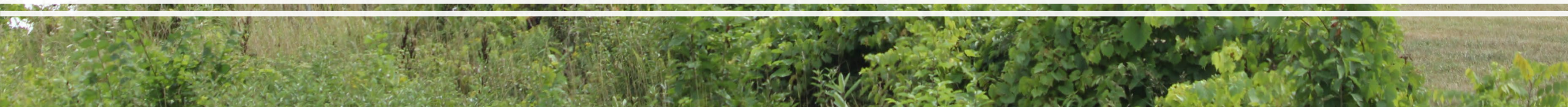
Button Bush







Japanese Pagoda
(August)





Paniculata Hydrangeas



Paniculata Hydrangea



Japanese Knotweed





Seven-Son Flower
(actually a small tree or large shrub)



Seven-Son Flower

September

Acts as a sentinel trees
during the fall monarch
migration



Trees are Meadows in the Sky!

Bee Meadow



Tree Meadow



In most parts of the country, trees provide the earliest and largest sources of nectar and pollen.





What Can You Do?

Preserve Pollinator
Trees We Already Have



A person wearing a grey t-shirt with "SPRING HARBOR VOLLEYBALL" printed on it and a purple baseball cap is standing in a forest. They are touching a large, textured tree trunk with their right hand. The background is filled with green foliage and sunlight filtering through the trees. The word "Thursday" is overlaid in white text in the center of the image.

Thursday

Friday



Be careful with pesticides: Read the label!

- Many fungicides kill entire bee colonies because bees feed their larvae a fermented product called bee bread. Fungicides prevent this fermentation, so a colony will decline or die.
- Yes, it's on the label.
- “Organic” insecticides imply safety, but if they are improperly applied, they kill pollinators. Bees are insects.
- Again, it's on the label.



Plant More Trees!

- Plant appropriate trees.
- Encourage neighbors, municipalities, and tree councils to plant pollinator-friendly trees.

“PLANTING TREES IS A
POWERFUL ACT. WE CAN
INFLUENCE THE LIVES OF
PEOPLE AND WILDLIFE FOR
CENTURIES WITH A
SUCCESSFUL PLANTING”
...Akiva Silver





Plant the right
tree in the
right place.



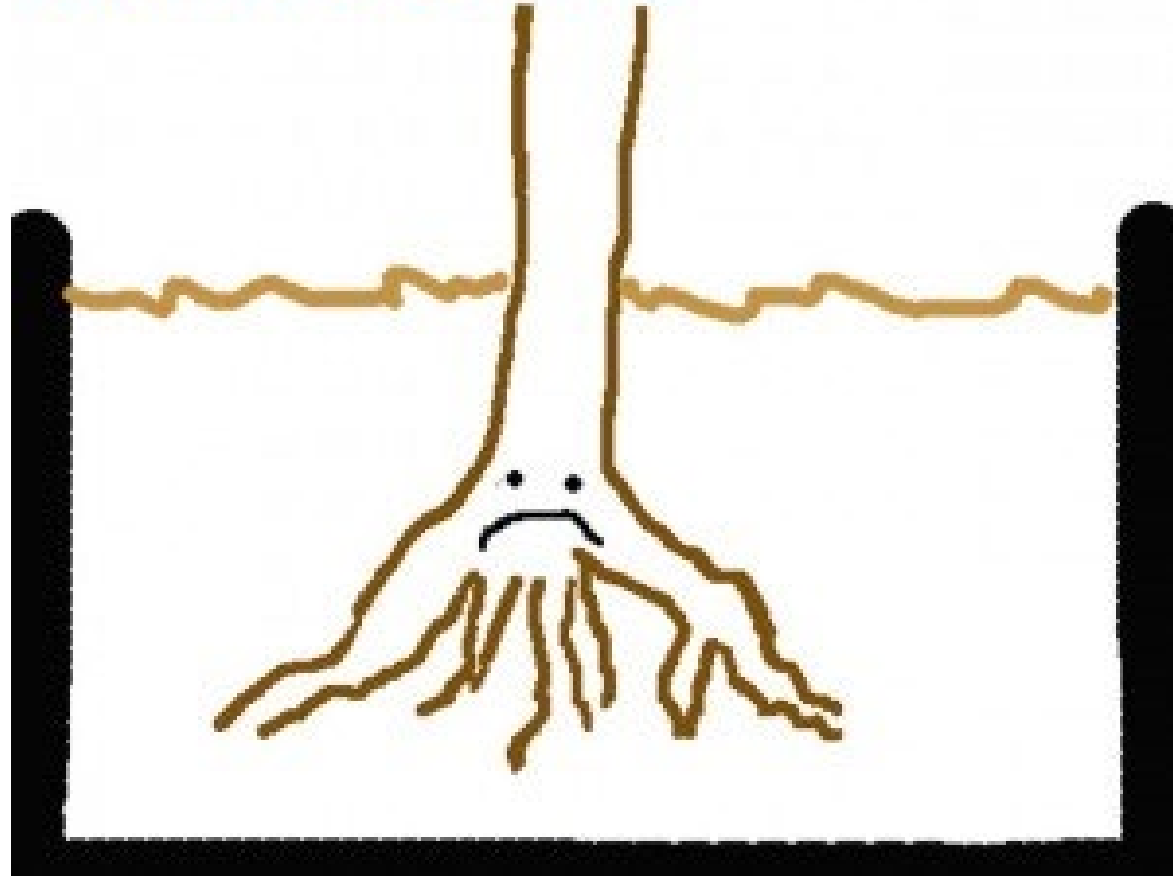
They grow
you know.



Plant Properly



HELP ME!
I CANT BREATH!









Watch for, and
Remove Girdling
Roots



Weed Control





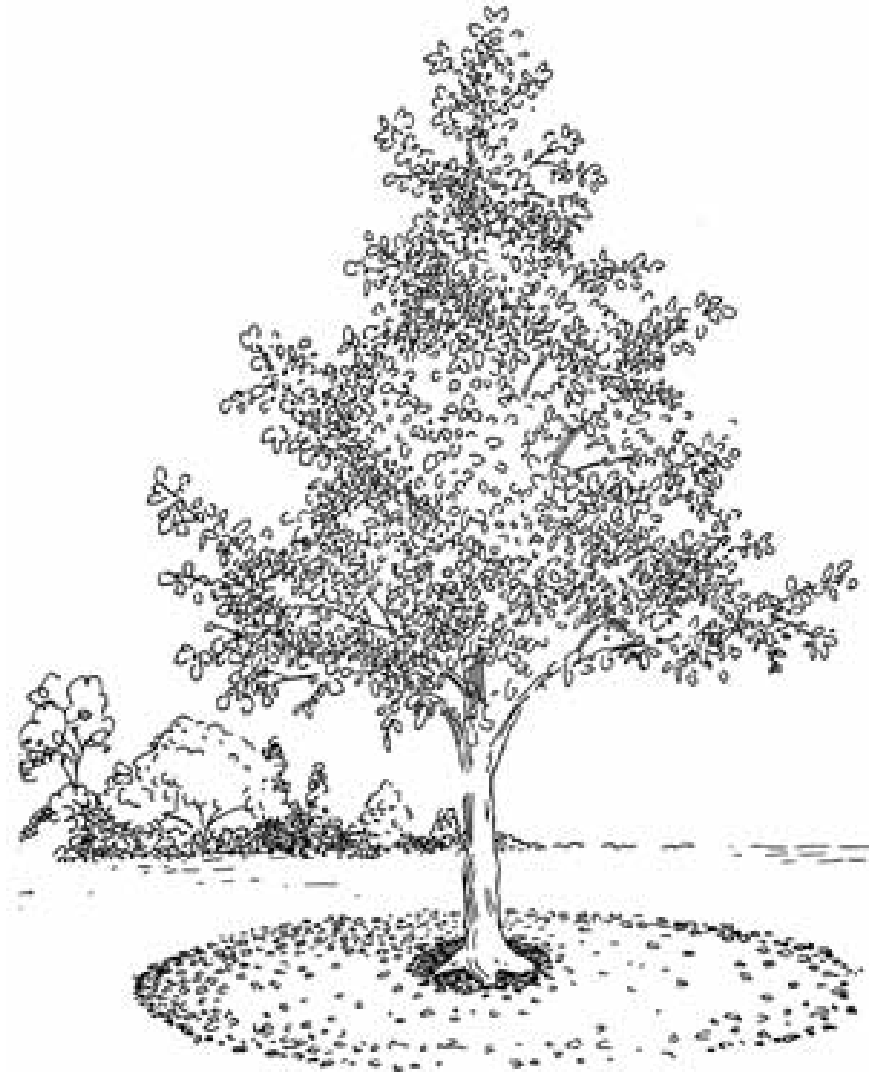


Mulch,
But Mulch Properly





"Mulch volcanoes" cause many problems for trees.



Mulch wide—not deep.

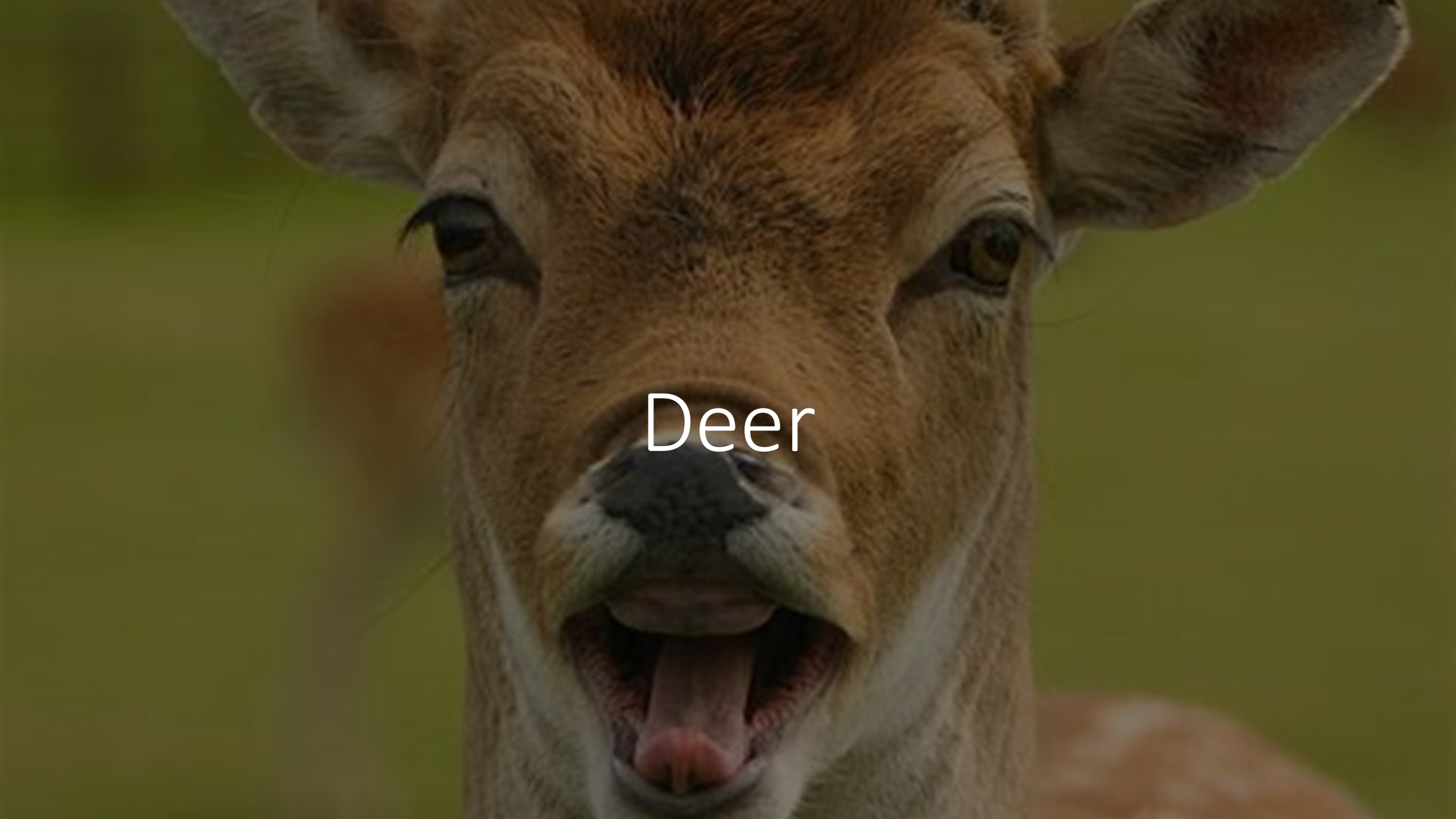




Nylon String Disease



Fertilizer Burn



Deer





Questions?

Mike Connor

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Pose Your Questions

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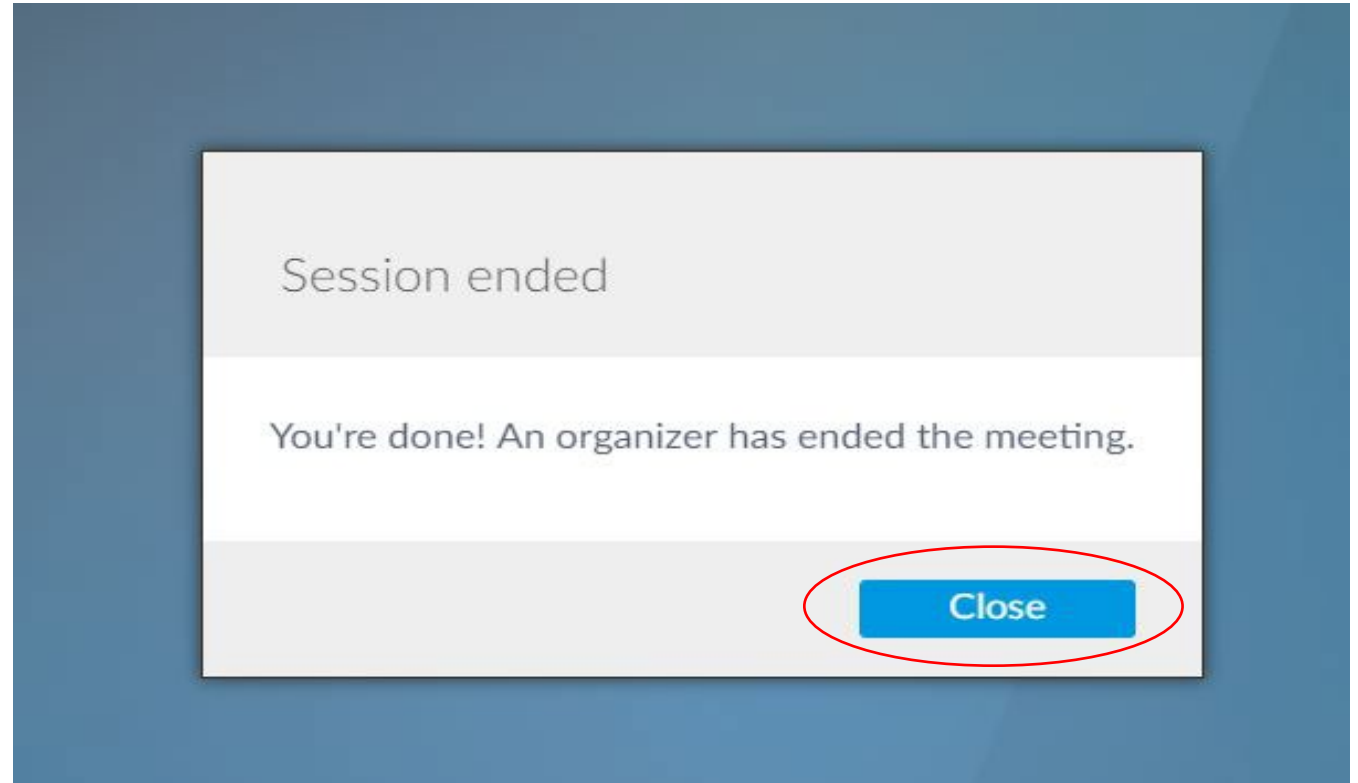
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Evaluation and Certificate Tips

Thank You For Your Feedback! TREES FOR BEES AND OTHER POLLINATORS

1. First and Last Name

2. Organization

3. State Province (2-letter abbreviation)

4. Email Address

5. After viewing this webinar, I would share this training with staff to educate them about this topic if it were accessible on YouTube?

☐ Yes

☐ No

6. How many other people are in the room with you for this webinar?

☐ No others, just me

☐ Myself plus one

☐ Myself plus 3 or 4 others

☐ Myself plus 5 or more others

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Submit

Integrated Pest Management Webinar

TREES FOR BEES AND OTHER POLLINATORS (90-minute webinar)

Tue, Jan 14, 2025 2:00 PM - 3:30 PM EST

Thank you for attending the webinar, "TREES FOR BEES AND OTHER POLLINATORS". We hope you gained valuable insights on the relationship between pollinators and trees, how to select the appropriate trees for the environment, and the proper planting techniques to ensure the health of the trees.

Please note: The certificate of completion link works best when using newer version of Google Chrome.

Thank you again for your participation in the webinar and for providing valuable feedback.

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Jan 14, 2025

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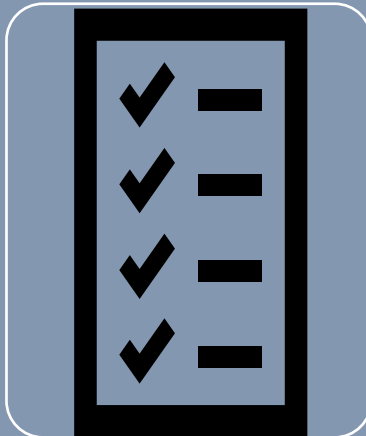
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Questions?

