

#### Less than 3% of the insects in the world are harmful.

\* The rest are pollinators, decomposers, pest managers...

#### **BENEFICIAL INSECTS**

- Bees and wasps are pollinators
- Leafcutter bees eat caterpillars
- Paper wasps eat caterpillars
- Lady beetles, lacewings are predators that eat aphids
- Dragonflies eat mosquito larvae
- Parasitic wasps help manage caterpillars and other insects
- Ground beetles eat various garden pests and are decomposers

#### RIGHT PLANT FOR THE GROWING CONDITIONS

- Will thrive in growing conditions and space
  - Select most pest resistant plants when possible

#### PROVIDE PROPER CARE

- Healthy plants are more resistant to insects and disease
- Proper watering, mulching key to success
- Fertilize according to soil test recommendations

#### ADJUST MAINTENANCE TO SUPPORT BENEFICIAL INSECTS

#### **LAWNS**

- Consider how you use your lawn
- Less is better
- Skip the herbicides
- No Mow May planning ahead for 2023
  - Check with municipality for mowing height regulations
  - Communicate intent with neighbors
  - Help your lawn recover
    - Gradually reduce grass height
    - Fertilize Memorial Day or early June with a low nitrogen, slow-release fertilizer like Milorganite

#### • Bee lawns

- Low traffic areas
- Sloped areas that are not used for activities
- Communicate your intent with neighbors

#### **About ATC**

ATC was formed in 2001, as the first multi-state, transmission-only utility in the United States. Unlike most other utilities, we have a single focus: transmission.

Our high-voltage transmission lines enable utilities to move power from a variety of different sources and locations to substations and lowervoltage lines that serve communities.

While we are required to keep trees and brush out of transmission rights-of-way, we do understand they are an important part of the landscape. Since 2013, we've donated over \$425,000 to support community planting projects and establish quality pollinator habitat within transmission rights of way.

Visit atcllc.com to learn more.



Helping to keep the lights on, businesses running and communities strong®

- Include low growing perennials that tolerate mowing
  - Clover, self heal, creeping thyme
  - Fine fescues include creeping, chewings, hard and sheep fescue

### GROW PLANTS THAT SUPPORT BENEFICIAL INSECTS

(See Creating a Pollinator Paradise <u>webinar</u> recording and <u>handout</u> and <u>Supporting Native</u>
Bees webinar recording and <u>handout</u>)

- Attracting other beneficial insects to your landscape
- Grow plants to attract them
  - Small flowers for tiny insects like parasitoid wasps
  - Carrot family
    - Cilantro / coriander
    - Fennel
    - Dill
  - Composite family
    - Coneflower
    - Sunflowers
    - Coreopsis
    - Blanket flower
    - Yarrow (look for non aggressive species and varieties)
    - Goldenrod
    - Aster
  - Mustard family
    - Sweet alyssum
    - Broccoli
    - Mustards and more
  - Mint family
    - Creeping thyme
    - Agastache
    - Monarda

- Lavender (Hidcote & Munstead hardier cultivars)
- Tolerate some pests and their damage
  - Beneficial insects need a food source
- Buying and releasing beneficial insects
  - Outdoors have not proven real effective
    - Often disperse to other areas
    - Must have food source for them (insect pests)
  - Better to attract them in your landscape
- Don't forget the songbirds
  - Most songbirds eat insects
  - Providing berry and seed plants
  - Nesting sites
  - Water

#### **MANAGING GARDENS**

- Leave leaf litter
- Home for many beneficial insects
- Insulation for insects, frogs and toads that overwinter in the ground
- Allow healthy perennials to stand for winter
  - Cut back when temperatures are in the 50's for several days
    - Remove some stems to ground level
    - Leave some stems 8-24" tall
      - These will provide summer and winter homes
      - New growth hides the stubble
- Leave fallen branches and trees if possible
  - These are homes to many insects
- Leave dead branches and trees standing if not a hazard
  - Home to many insects and birds that feed on insects
- Create a brush pile

#### **About Grow Smart®**

ATC's Grow Smart® program encourages planting low-growing, native perennials within the transmission rights-of-way. This flowering vegetation can thrive within the rights-of-way, making utility corridors ideal for pollinators who benefit from the contiguous flight path.

Once established, the native vegetation beautifies the right-of-way and provides exceptional habitat for other species, while also maintaining the safety and reliability of the electric grid.

ATC is uniquely positioned to help establish habitat for pollinators because of the 9,921 miles of transmission line right-of-way we manage. Approximately 40% of our rights-of-way have been identified as having suitable pollinator habitat.

Visit <u>atc-GrowSmart.com</u> for low-growing, native plant suggestions.



#### **MANAGE PESTS**

- Monitor for problems
  - Easier to control a few insects than a thousand
- Identify the problem
  - Check reliable sources
  - Review recent weather
    - Is it weather related, another environmental issue or pest related
    - Environmental issues affect a wide range of plants
      - Damage stops when weather changes or problem is gone
  - Review maintenance practices
    - Over or under watering can damage plants
    - Excess fertilizer can damage plants
    - Root damage from cultivation
    - Mulch buried trunks and stems
  - Determine if control is needed
    - Cosmetic and not life threatening
    - Is the pest still present?
    - Polyphemus caterpillar
      - Damage level of concern?
    - Boxelder bugs nuisance
    - Dog vomit fungus disgusting, but harmless
- Look for the most eco-friendly way to manage the problem
  - Handpick, traps, barriers, eco-friendly products
  - Always read and follow label directions when using any chemical - organic, natural or synthetic
- Evaluate management strategies and adjust as needed

- Record
  - Mark your calendar for next year to watch for the problem
- A few examples
- Diseases occur when these three things are present
  - Weather conditions are right for the disease
  - Susceptible plant
  - Disease causing organism
- Powdery mildew
  - Resistant plants
  - Proper growing conditions
  - Thin stems by 1/4 in spring
  - Mask bad foliage with other plants
  - Cornell Baking Soda Mix
    - ◆ 1 <sup>1</sup>/<sub>2</sub> T baking soda
    - 3 T horticulture oil
    - 1 Gallon water
  - Horticulture oil like <u>Summit Year-Round</u>
    <u>Spray Oil</u> provides weeks of control
- Phytophthora and botrytis blights
  - Sanitation
  - Copper fungicide first application when stems are 6" tall
- Insect pests
  - Aphids and mites
    - Lady beetles and lacewings eat the problem
    - Strong blast of water
    - Insecticidal soap, Summit Year-Round Spray Oil and Neem (also repellent)
      - Contact insecticides
      - Must cover insects to be effective
      - No residual



#### **About Melinda**

Nationally known gardening expert, TV/ radio host, author & columnist Melinda Myers has over 30 years of horticulture experience and has written over 20 gardening books, including Can't Miss Small Space Gardening, the Midwest Gardener's Handbook, and Jackson and Perkins' Beautiful Roses Made Easy. She hosts the nationally-syndicated "Melinda's Garden Moment" program airing on over 115 TV and radio stations throughout the U.S. Melinda also hosts the internationally distributed Great Courses "How to Grow Anything" DVD series, including the latest Food Gardening for Everyone DVD set. She is a columnist and contributing editor for Birds & Blooms magazine, writes the twice monthly "Gardeners' Questions" newspaper column and a nationallydistributed gardening column. She appears regularly as a guest expert on national and local television and radio shows.

Visit Melinda's website, melindamyers.com

- Can kill beneficial insects they contact as well as problem insects
- Traps and reflective mulch
  - Yellow bowl filled with soapy water
  - Reflective mulch, like heavy duty aluminum foil
- Earwigs
  - Predaceous insects that eat foliage and flowers
  - Traps
    - Crumpled paper under overturned terra cotta pot
    - Cardboard cylinder filled with straws
  - Organic pesticides
- Slugs
  - Resistant plants hostas with thick substantive leaves
  - Invite toads and frogs into the garden
    - Make a toad abode
    - Provide water
  - Traps
    - Beer in shallow container
    - Boards
  - Diatomaceous earth sprinkled around the plants
  - Organic slug controls (iron phosphate as active ingredient)
- Cabbage worms
  - Physical control
  - Barriers
    - Floating row covers
    - Apply at planting
  - Organic insecticide Bacillus thuringiensis kurstaki (Btk)

- European pine sawfly hatch when saucer magnolia drop petals
  - Physically remove
    - Smash with gloved hand
  - Prune out infested branch
  - Bacillus thuringiensis (Bt) will NOT work
    - Sawflies have 6-8 prolegs
  - Caterpillars have 5 or fewer prolegs
  - Soaps, horticulture oils or other ecofriendly products
    - Most effective when applied to younger/ smaller sawfly larvae
- Japanese beetles
  - Adult beetles feed on leaves of plants
  - Immature stage (grubs) feed on grass and other plant roots
  - Populations can peak and drop over time will always be an issue once present
  - Lifecycle of Japanese beetles
    - Overwinter as grubs in soil
    - Spring, as soil warms, move closer to the surface, feeding on grass and plant roots
    - Pupate into beetles that feed on leaves and flowers of a variety of plants
    - Beetles mate and lay eggs late summer
    - Eggs hatch and grubs feed on plant roots
    - As temperatures drop, the grubs move deeper into the soil to overwinter
  - Tolerate damage
    - Japanese Lace Effect
  - Grow less susceptible plants
    - They do eat 300 different species of plants
  - Manage first to arrive to reduce total number invading garden for the season

**National Pollinators Month** in June is celebrated internationally in support of pollinator health. It's a time to celebrate pollinators and spread the word about what we can do to help support them.<sup>1</sup>

Pollinator populations are changing.
Many pollinator populations are in
decline and much of this decline is due to
a loss in feeding and nesting habitats.
Pollution, the misuse of chemicals,
disease, and changes in climatic patterns
are all contributing to shrinking and
shifting pollinator populations.<sup>2</sup>

National Pollinators Month brings attention to the importance of the relationship between pollinators and plants. Research studies estimate that about 75% of the food sources in the world are dependent on pollination. However, due to increased pollution and invasive non-native plants, pollinators like bees and wasps are in danger of extinction.<sup>1</sup>

The month focuses on supporting pollinators by creating safe places for them to live and raise their young, Creating pollinator-friendly habitats that provide food, shelter, and water and avoiding the use of pesticides is one way we can help. Protecting pollinators helps us ensure future sources of food, fiber, medicine and other resources that depend upon these important pollinators.

<sup>&</sup>lt;sup>1</sup> www.nationaltoday.com/national-pollinators-month

<sup>&</sup>lt;sup>2</sup> www.pollinator.org/pollinators

- Knock into soapy water
  - Morning is best when sluggish and congregating
- Vacuum the beetles, then drop into soapy water
- Bacillus thuringiensis galleriae (BeetleJUS, BeetleGONE!)
- Milky Spore for Japanese beetle grub control in lawn
  - Adults can fly up to 2 miles
  - Must tolerate grubs in lawn for disease to multiply and work
  - No other pesticides in lawn
- Traps bring beetles into the garden NOT recommended
- Scale
  - Physically remove
  - Insecticidal soap, when crawlers are active
  - Summit Year-Round Spray Oil treats all stages, used during growing and dormant seasons
    - ◆ Pine needle scale VanHoutte spirea bloom
    - Oyster shell scale on lilac and dogwood

       VanHoutte spirea bloom and when
       Hills-of-Snow hydrangea blooms go
       from white to green
    - Euonymus scale Japanese tree lilacs and catalpa in bloom
- For more information on using bloom time for pest management, see the book <u>Coincide</u>: <u>The Orton System of Pest Management</u> by Donald A. Orton

- Doug Tallamy's Beneficial Insect Safe Mosquito Trap
  - Fill 5-gallon bucket with water
  - Add a handful of straw or hay
  - Toss in a Mosquito Dunk

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And thanks to Public Libraries across the state of Wisconsin and the Upper Peninsula of Michigan Libraries for their participation in June is Pollinator Month Celebration

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