



NATURAL PEST MANAGEMENT

Americans spend over \$1 billion and apply over 70 million pounds of pesticides per year. Pesticides kill beneficial insects like pollinators, pollute storm-water runoff, and threaten human health. Many common pesticides can compromise the immune system and lead to problems like allergies and asthma and have been linked to increased occurrence of leukemia, brain cancer, and soft tissue sarcoma. Children are especially vulnerable to the effects of pesticides. They absorb more pesticides relative to their body weight and are unable to detoxify from the chemicals as their organs are still developing.

- Each year more than 43,000 children under age six are exposed to concentrations of pesticides high enough to cause cancer, respiratory illness, and central nervous system damage.
- Common pesticides, such as Dursban which is used to treat lawns and ornamental plants, are nervous system poisons and exposure can cause headaches, aching joints, nausea, dizziness, disorientation, and inability to concentrate.
- Children who play in yards treated with herbicides and insecticides have a significantly greater risk of developing cancer and auto-immune diseases.
- Fetuses exposed to home pest strips during the final three months of pregnancy had three times the normal rate of leukemia and children exposed to them after birth had twice the normal rate.
- Over one thousand beneficial insects like honeybees are killed for every bug pesticides try and control.

You can make a difference by using natural pest management practices instead of pesticides. The vast majority of insects in your yard and garden are beneficial and help maintain the ecosystem balance. A natural yard of diverse native plants is the best way to avoid pest problems.

CREATE A NATURESCAPE

Naturescapes are eco-friendly landscapes of native plants that provide natural beauty and wildlife habitat. Healthy natural yards attract birds, bees, butterflies, and other beneficial insects that naturally control pests.

ATTRACT NATURAL INSECT PREDATORS

Birds, bats, and beneficial bugs like ladybugs eat millions of insects a day. Parasitic wasps control more than two hundred kinds of pests and ladybugs eat up to 100 aphids a day!

- Plant these plants to attract beneficial insects
 - Lacewings Yarrow, Dill, Cosmos, Fennel
 - Ladybugs Butterfly Weed, Coriander, Marigold, Tansy
 - Minute Pirate Bugs Caraway, Alfalfa, Spearmint, Goldenrod
- Create brush piles and leave parts of your garden untrimmed during the fall and winter to provide shelter for beneficial insects

For more information visit noahsnotes.org.

©2017 NOAH'S NOTES, INC.



NOAH'S NOTES

Saving nature in your backyard

- Put up nest boxes to attract bats and insect eating birds like Purple Martins, Chipping Sparrows, Eastern Phoebes, Red-eyed Vireos, Yellow Warblers, Baltimore Orioles, Downy Woodpeckers, Common Nighthawks, House Wrens, and Bluebirds

OBSERVE

- Check your garden regularly for pest problems
- Identify the problem
- Identify the bug

REMOVE

- Most insect pests and diseases concentrate on new plant growth and can be treated simply by removing the insects by hand or pruning off affected areas
- Dispose of diseased plant parts in plastic bags to reduce contamination of other plants

NATURAL REMEDIES

Insect Repellent

- Mix 1 tablespoon of liquid hand soap with ¼ teaspoon of powdered cayenne pepper, onion and garlic powder in a spray bottle and fill with water
- Spray on infected plants

Oil Spray

- Mix 1 tablespoon of mild dishwashing liquid or baby shampoo with 1 tablespoon of coconut oil in a quart of water with a few drops of essential oils like citronella, peppermint, or tea tree
- Spray every 5-7 days as needed
- Water plants the day before you spray
- Do not use on orchids or plants with hairy leaves, those with very thin waxy coverings on the leaves

Fungus Control

- Add 2 tablespoons of baking soda to the oil spray recipe
- Spray both sides of the leaves thoroughly at the first sign of disease

Mosquitos

The life cycle of a mosquito is just a few weeks, but a dragonfly's is almost a year. When you spray for mosquitos you also kill beneficial insects like dragonflies, bees and butterflies. Empty containers of standing water and rinse and refill bird baths daily.

- Add a few drops of essential oils like citronella, eucalyptus, lemon, clove, lemongrass, geranium, or lavender to an ounce or two of argon, avocado, or coconut oil and apply to exposed skin on head, neck, arms and legs

For more information visit noahsnotes.org.

©2017 NOAH'S NOTES, INC.



NOAH'S NOTES

Saving nature in your backyard

Sugar Ants

- Mix 1/8 teaspoon boric acid powder with ½ teaspoon honey and place where ants walk
- Keep away from children and pets
- Wash away after ants have fed

Grease Ants

- Mix 1/8 teaspoon boric acid powder with a small amount of fish oil or grease
- Place where ants walk
- Keep away from children and pets
- Wash away after ants have fed

Ticks & Fleas

- Mix a few drops of essential oils like cedarwood, citronella, eucalyptus, tea tree, lavender, or lemongrass in a quart of warm water
- Wash and dry pet thoroughly, then apply rosemary solution with a spray bottle of sponge
- Allow pet to air dry

Rodents

- Keep pet bowls inside
- Store pet food and birdseed inside in covered containers
- Only put out enough birdseed in the morning that the birds will eat by sunset

Weed & Grass Killer

- Spray weeds or grass with a solution of 25% vinegar and 75% water
- Spray when no rain is expected for at least 2 to 3 days

RESOURCES

[Noah's Notes Creating Naturescapes](#)

[Beyond Pesticides](#)

[IFAS Integrated Pest Management](#)

[Using Beneficial Insects. Rhonda Massingham Hart. 1991, Storey Books.](#)