

BENEFICIAL INSECTS



Many insects play a beneficial role by lowering pest populations. 'Beneficials' eat decaying matter and/or other insects, and some can also parasitize pest insects.

- Encourage beneficial species already present by providing fresh water and a diversity of plants for food and shelter.
- Release commercially grown predators or parasites.
- Learn to appreciate bats, birds, toads and spiders.

BENEFICIAL ORGANISMS

Beneficial organisms can treat specific garden problems, while having little impact on people, pets, the environment or other beneficial organisms.

An example is *Bacillus thuringiensis*, or "Bt." Bt is a naturally occurring soil bacteria that is poisonous to the larvae of several types of insects but not toxic to non-target organisms. Bt can be applied to leaves of plants. But be careful! Bt is toxic to the caterpillars (larvae) of moths and butterflies.

Are "Organic" Pesticides for You?

Natural or "organic" pesticides are those that come from natural sources. Pyrethrum (pyrethins), rotenone and ryania come from plants. They can kill insects yet tend to break down quickly in the environment and not linger on.

But just because a product is organic, doesn't mean it isn't poisonous. Some organic pesticides are as toxic, or even more toxic, than man-made chemical pesticides. And though some organic pesticides may be nontoxic to people, they may still be very harmful to animals. For example, special care must be taken when applying rotenone or ryania next to water because they are very toxic to fish. Also, many natural pesticides kill beneficial insects, like as honeybees, especially if combined with other materials, (such as combining pyrethrins with rotenone.)

It is important to be careful when using any pesticide, even organic or natural pesticides.



Poisonous pesticides and chemicals used on our lawns and gardens can be tracked into our homes and absorbed through our skin.

Keep Our Homes Healthy

Wipe shoes on doormats and leave them at the door.

Vacuum regularly with a HEPA (High Efficiency Particulate Air) filter vacuum. Old vacuums can blow contaminated dust from the carpet out into the air. Dust particles can be inhaled and ingested after settling on food, hands and furniture

Garden Safely

Fertilizers and pesticides are useful to society. Fertilizers can help make up for the nutrients we deplete from our soils. Pesticides can kill potential disease-causing organisms and control insects, weeds, and other pests.

If you are like most gardeners, you have dumped chemical fertilizers, herbicides, and insecticides onto your lawns, vegetable gardens and flower beds. Each year, about 67 million pounds of pesticides are dumped onto American lawns alone. But... the EPA has found that about one-fifth of those pesticides can cause cancer in humans.

Pesticides are poisons designed to get rid of pests. By their very nature, most pesticides create some risk of harm. Pesticides can be harmful not only to "pests" but to humans, animals, or the environment because they are designed to kill or damage living organisms.

Whenever we use chemicals, there is a good chance that they will not stay where we want them to stay. They can move onto a person or a pet, or into a home or car. They can be inhaled through our noses or passed into our eyes or mouth, and our bodies can absorb them through our skin. Whenever we use chemicals, we put someone or something at risk of being harmed.

California Garden Clubs, Inc.



Grow With Us



Think About It...

WHAT THE LABEL MEANS...

All pesticides carrying EPA registration numbers are considered by the federal government to be toxic.

CAUTION is the label for the products that are the least toxic to people.

WARNING means even more toxic to people.

DANGER indicates the product is the most harmful to people.

Commonly used pesticides, including herbicides, fungicides, insecticides and repellents, are composed of both active and “inert” ingredients.

Inert ingredients are allowed to be toxic.

When you use pesticides to kill things around your home, you are also exposing your family to poisons.

Think about it: Pesticides are designed to kill insects and weeds. Even when used as directed, they still have the potential to cause a wide range of health problems in people because of their toxicity.

Think about it: No one guarantees the safety of pesticides. Just because a product is registered with the Environmental Protection Agency (EPA) doesn't mean it's safe.

Think about it: Pesticides have been treated as “innocent until proven guilty.” Older pesticides have not been tested by today's standards. Many pesticides that were widely used for years, like DDT and dioxin, are now known to be dangerous and have been banned from use.

Think about it: Most pesticides in use today have not been tested for their health effects on children.

Think about it: Certain types of pesticides mimic hormones, the chemicals in our body that regulate development and body functions. Scientists have discovered that some pesticides have the ability to mimic or compete with hormones.

A Note About Fertilizers...

Experts disagree as to whether chemical fertilizer applied to household gardens pose an immediate health threat. Just as there is no conclusive data to prove its danger, there is none to prove its absolute safety. Most experts say further study is needed. Either way, the EPA is moving to ban the use of toxic wastes in fertilizer & soil amendment.



If you can do only one thing to make your home safe for your family... avoid pesticides. We all use some kind of lawn and garden product. Using these products outdoors doesn't mean they won't come indoors. In fact, numerous studies show that chemicals in soil and lawns are tracked indoors.

And that's not all that comes inside. Pollutants are carried on wind and in rain and can be deposited miles away from where they were produced, on your yard, or the sidewalk in front of your home. When we walk, our shoes collect these pollutants and carry them inside onto our carpets.

The easy way to avoid exposure: Wipe your shoes on a doormat or leave your shoes at the door.

Our gardens are mini-ecosystems. They are places where everything we do has an impact on something else in the system. Some of the connections are obvious: when we water, we provide the moisture plants need. Some are not so obvious: when we kill all the bugs, we're also getting rid of food for the birds.

Common Sense Gardening

- Choose suitable species for your growing region and conditions. Purchasing seeds and plants for your climactic zone will ensure that your plants are robust, and therefore able to fend off pests and disease.
- Grow disease-resistant plant varieties in your garden. Plants are often bred to resist bacterial, viral or fungal diseases.
- Promote diversity in your garden through companion planting and crop rotation. It will be more difficult for insect pests and diseases to find their favorite plant if your garden plants are arranged according to their beneficial effects upon one another.
- Provide good growing conditions. Provide adequate sun and water, good air circulation, and keep the garden free of diseased debris. Use drip irrigation to deliver water to the roots instead of the foliage.
- Provide fertile soil by incorporating compost and other organic matter. Test your soil to ensure nutrients are available for plant growth.
- Inspect regularly for pests and diseases. You will have a better chance of controlling outbreaks when they are still small and localized.