



Those Pesky Pests!



What is a Pest?



Nature is filled with billions of different living things, or **organisms**. Every organism has a role to play in nature, whether plant, animal or insect.

And, just like human beings, all organisms also need a home, or **habitat**, in which to live. When certain organisms live in places that interfere with our lives, they are considered **pests**. For instance, **rodents** like rats and mice sometimes nest in cabinets, under the floors, and in walls. Rodents can carry dangerous diseases like the bubonic plague. Insects like mosquitoes, ants and cockroaches can also come into our homes and schools. Some mosquitoes (although very few in the United States) spread diseases like malaria. When certain plants grow in the garden and crowd out other plants, they're called "weeds". And sometimes, tiny bugs called aphids or mealy bugs live on the leaves of houseplants, garden plants and even on farm crops. These insects live by sucking nutrients out of the plant, which harms or eventually kills the plant. The organisms that can damage our health, homes and garden are often called pests.

Ants at a Picnic



Although all organisms have important roles to play in nature, when they are found out of place they are considered pests. For example, when ants live outdoors, they loosen up the soil so plants can have oxygen and grow. This is very important to keep soil healthy. When ants move into our kitchens or on our picnic

tables however, they are out of place and become pests. Another example can be found with weeds. Some plants like the dandelion are considered to be an herb and can be used for medicine and food. When dandelions grow in places they are not wanted however, they are out of place and are called weeds. Even plants like spearmint can be weeds when they begin to overtake other plants.

The History of Pests



For thousands of years, people have had to live with pests. Over time, human beings have discovered effective ways to control them. In ancient Egypt, cats were raised to catch mice that ate wheat and barley the Egyptians stored to make bread. Five hundred years ago, Chinese farmers used a part of the tobacco plant to kill unwanted insects on their crops. And in tropical areas of the world—like in Costa Rica and Thailand—mosquito nets are used around beds so that mosquitoes carrying malaria can't bite sleeping people. All of these are natural ways to control pests.

Modern Pest Control



Today, there are different ways to control pests. Ever since the 1940's poisonous, or **toxic** chemicals have been used widely to kill pests. These chemicals are called **pesticides**. The suffix "**cide**" means **to kill**. An **herbicide** kills weeds; a **rodenticide** kills rodents; a **fungicide** kills fungi; and an **insecticide** kills insects. These toxic chemicals can contaminate the air, water and

soil of our environment and can also hurt wildlife and human health. Look at the label of a pesticide. If it says **caution**, **warning**, **danger**, or **poison**, that means it contains toxins that are harmful. Containers that say “warning,” “danger,” or “poison” are more dangerous than ones that say “caution.” Remember, just because something is sold in the store, doesn’t mean it’s good to use; and just because something is legal to use, doesn’t mean it’s safe.

Earth Friendly Pest Control



Much effort has been made to discover less harmful or less-toxic methods for controlling pests. For instance, instead of using insecticide sprays to kill ants, people keep ants away by sprinkling kitchen spices like cinnamon and red pepper at the point where ants enter the home. People also keep ants away from cat food or dog food by putting the food bowl in a pan filled with half an inch of water. This acts like a moat around a castle and prevents ants from eating the food since ants can’t cross water.

People are returning to old-fashioned methods of pest control like using a mousetrap instead of a rodenticide to catch rats and mice. They also use fly swatters or sticky flytraps to kill flies and mosquitoes instead of using insecticides. These less-toxic methods may take a little longer, but they prevent poisons from entering our bodies, homes, schools and environment.

Garden Pest Control



People are working hard to find safer ways to control pests. One approach is called **Integrated Pest Management** or **IPM**. IPM uses many methods to

control pests (including those listed above) and has been very effective in reducing the amount of pesticides being used. For instance, instead of using toxic herbicides to kill weeds, people are pulling weeds by hand or putting a protective top layer of leaves, straw and bark—called **mulch**—on top of the earth to prevent weeds from growing.

Beneficial Insects



One of the best ways to control pests is to let nature do the work for you! When we keep our gardens healthy by providing the right soil, proper water, and good light, pests naturally tend to stay away. Nature also provides certain kinds of insects that love to eat pesky pests. These good, or **beneficial**, insects like ladybugs and tiny wasps that are harmless to humans, can naturally be found in our gardens and eat insects like aphids, mealy bugs and other pests that can hurt or kill plants. Not only are ladybugs pretty to look at and harmless to the environment, ladybugs can eat up to fifty aphids in one day! This natural pest control helps keep pests at low enough levels so that they don’t hurt plants.

In some cases, when the safest pest control methods aren’t working, it can be necessary to use a pesticide. Integrated Pest Management incorporates the use of pesticides when needed but makes sure to use the safer, least toxic pesticides available. Some pesticides are made from clove oil and garlic oil and they really work!

A Better World



Our planet is our home. By learning about the different, less toxic ways to control pests, we can help protect the environment and our health.