



HELP!

URBAN GARDENING PROJECTS

426-909

garden pests and problems

Reprinted 1988

If you are like most gardeners, you will have some problems in your garden. You may have insects munching away at your plants, too much or too little water or fertilizer, diseases, or problems that don't have any obvious cause. This project is a record of whatever difficulties you may have with your Container or Vegetable Garden, and you should be doing one of those projects before you try this one. Since it would be impossible to name in advance all the troubles you could have, you will really be making up your own project as you go along.

Just for Fun - Lady Beetle Paperweight

The lady beetle is one of the friendly, or beneficial insects that help control harmful insects in your garden. You can make a paperweight that looks like a ladybug (or any other insect for that matter) to use on your desk or give to someone special.

You'll need: a smooth stone with a shape like the insect you want (look in a stream or by a river)

Lady Beetle



enamel paint in desired colors
paintbrush
shellac



Caterpillar



Bee



Grasshopper

Paint the stone to look like an insect. Some examples are shown here. Don't forget to put your initials on it. Allow to dry for 24 hours and then cover with shellac and dry again.

Game - BZZZZ!

One player is the gardener, and the rest are bugs. The gardener is blindfolded and the bugs walk around her or him going "bzzzz" every once in awhile. The gardener tries to catch one of the bugs; when she/he touches one, that bug becomes the gardener.

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Project - Garden Pests and Problems

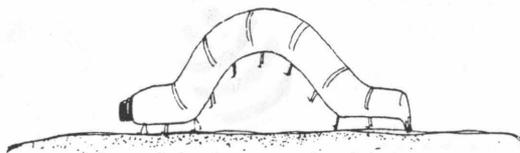
Insects

If you have an outdoor vegetable garden, you will probably have insects on your plants. This is normal! Many insects are *supposed* to live on plants, and without them we would probably have no fruits or vegetables. They are necessary for pollination of many plants, without which fruits could not form. Others, such as lady beetles, praying mantis, dragonflies, lacewings, and ground beetles eat harmful insects.

Even the harmful insects are necessary parts of the biological world. They begin the breakdown of plants, which would otherwise overpopulate and use up all of the food in the soil. Of course, we don't always agree with the time the insects choose to start breaking down our cabbage plants, but then, when we put out all those delicious-looking fields full of vegetables, we should expect insects to want to come and do their jobs. Our best defense is to be prepared, and to know our enemies.



Suppose you find an insect on your cabbage and you don't know what it is. If you just grab the spray gun you might do more harm than good. Put the insect in a jar (use a stick, not your fingers, unless you know the insect doesn't bite or sting) with a few air holes punched in the lid. Put part of the leaf or other plant part being attacked in the jar, too. Say, for example, you've found an insect that looks like this on your cabbage:



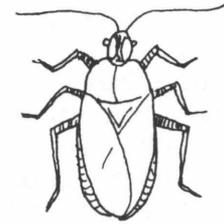
he must be a worm-cabbage (oh, I mean a cabbage-worm!). Where do you think you'll find a squash bug? Or a Colorado potato beetle (not in Virginia?)?

Look at the insect carefully. Write down everything you see - its color, shape, etc. You can pretty much guess that this one is a worm, right? And you know he's not an earthworm or a snake - he's got legs. So, if he is a worm and he was on your cabbage,

Unfortunately, it's not that simple. A worm on cabbage may be some other kind of worm than a cabbage-worm. There's also a cabbage looper, which "loops" like an inchworm to get around. The picture above is a looper. And there *are* Colorado potato beetles in Virginia.

So you have to identify your pest (or friend). You can go to the library and look for books on gardening or garden pests. If your library doesn't have any books like that, ask the librarian to order some, since you may need them again later. Or, you can ask someone you know who is a gardener, your leader or an Extension Agent. Either way, you need to take the insect and the following information:

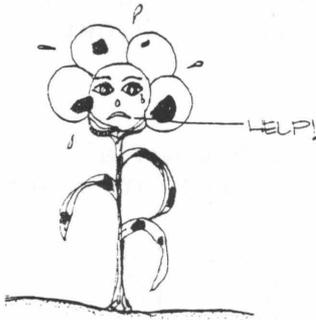
- what kind of plant was the insect on?
- how many plants of that kind do you have?
- how many of these insects did you see? a few? a lot?
- what the bugs are doing (eating holes in the leaves, sucking juices out of the stem - look closely for that one - eating other bugs, or just sitting there)



If you find something in a book, you can show what you found to the Agent or other helper and see if they think you are right. The Agent or gardener can tell you what needs to be done to get rid of the insects, or maybe that you shouldn't do anything at all. *NEVER SPRAY INSECTICIDES WITHOUT GETTING HELP FIRST!*

Diseases

Plants can come down with diseases just like humans. In this case you are the doctor. Again, you need to identify the problem before you can do anything about it. See your gardener friend or Extension Agent. It's better to stop any disease early, so if you think your plant is not well, have it checked out right away! If the plants are small and you have a lot of them, carefully dig one up, roots and all, and put it in a paper cup with some moist soil. If you can't take a whole plant, either take part of the plant that looks diseased or have someone come and look at the plant.



You can help prevent plant disease from spreading very rapidly by planting the same plants (tomatoes, for example) in different places in your garden. If your plants are all in one row, it's very easy for disease to wipe out the whole row.

Keeping weeds under control and giving plants the right amount of space so they get plenty of air and light will help. Insects sometimes carry plant diseases, so you should control those insects you identify as disease-carriers, even if they aren't eating plants.

If you have to water, do it early in the day so plants will have time to dry off before it gets cool; fungus diseases usually like cool, moist conditions. Also, it's best not to handle plants when they are wet, since diseases will spread on your hands to other plants

Weeds

You might say that a weed is a wildflower that is growing in the wrong place. Some even have very nice flowers. But they can take over your garden if you let them, especially if they go to seed. So the main thing is to keep them from growing too big. If you have a compost pile, add your weeds to it; this lets you recycle them and get back the nutrients they have taken from the soil.

Keep weeds down by hoeing or pulling them. It's easiest a day or two after it rains, while the soil is still soft. Mulching will help keep weeds from growing, and those that get through the mulch are easier to pull since mulch keeps the ground moist. Be careful not to harm your vegetable plants by hoeing too close or pulling up too much soil near them.



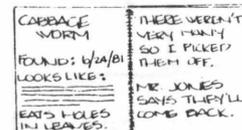
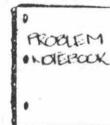
Learn to identify some of the weeds in your garden. Dig or pull one of each kind when it is small and take it to a gardener, leader, or Extension Agent. For the harder ones, you might have to let one grow until it flowers to identify it.

Other Problems

There may be troubles you just can't figure out, or things that aren't caused by insects or diseases. Over- or under-watering can be a problem, especially with container plants. The temperature might not be favorable, or your soil may need something added. Your Agent, leader or gardening friend can help you with these things, too.

Record - keeping

Keep records on each problem you experience. Write down all your observations in a notebook about each disease, insect or other problem. Tell everything you noticed, what you did about it, and whether the plant(s) recovered. When you identify a weed, take a photograph or make a drawing of it, or dry one, and put this in your notebook with its name and any information you can find out about it. When the gardening season is over, turn in your notebook to your leader.



Extra projects

There are some interesting extra projects you can do along with this one. See your leader for details on: (1) Insect Collection, (2) Weed Display, (3) Beneficial Insects.

New Words

beneficial: helpful, in this case referring to insects which are helpful to gardeners

fungus: a type of plant which may cause diseases of other plants; also refers to the group including mushrooms and some microscopic plants which live in the soil

mulch: a covering over the soil around plants which helps hold moisture, keep down weeds, and add nutrients to the soil (in some cases); see "Things Plants Need" HELP sheet