Developing Countries Farm Radio Network

Package 11, Item 4

Type: Script

Date

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**A light trap for insect pests**

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Information on this subject area was requested by DCFRN Participants in Argentina, Belize, Chile, Colombia, Dominica, Dominican Republic, Honduras, India, Malaysia, Mexico, Nigeria, Palau, Philippines, Senegal, Sierra Leone, Sri Lanka, Swaziland, Taiwan, Thailand, and Trinidad.

Presenter: Barbara Peacock

**Special note**

Before using the information in this item, please read the notes at the end concerning related DCFRN items.

**Suggested introduction**

We at this radio station are part of a world‑wide information network that gathers farming information from developing countries all over the world. It's the Developing Countries Farm Radio Network, sponsored by the Canadian International Development Agency, Massey Ferguson, and the University of Guelph.

Through this Network, we bring you information on ways to increase food supplies for your family, or to sell—ways that other farmers have used successfully.

Here's Barbara Peacock now with information on trapping insect pests.

**PEACOCK:** I'd like to tell you about a way to control insect pests in your garden.

You know that there are many different kinds of pests that attack the crops we grow. Some have wings and fly around. Others are crawling wormlike pests with no wings—grubs, maggots, and caterpillars. They look very different from the insects we see flying around. Yet these crawling pests are, in fact, insects too. Many of them come from eggs laid by flying insects. Later the crawling pests will change completely, and finally become adult insects, like those we see flying around—flies, beetles, moths, and butterflies. Those flying insects will lay a lot of eggs, and out of the eggs will come more of those grubs and caterpillars that attack your crops.

If you can trap the insects at the stage in their life cycle when they're flying around, they won't be able to lay eggs and produce more pests. One way to trap them is with a light trap.

We recently heard from a gardener in Africa who uses a light trap close to his garden, and he says that each night it catches about 40 cutworm moths, up to 20 leaf miner moths, 200 leafhoppers, and many other insects. He says that in the past season, none of his plants have been killed by cutworms—that's a big improvement for him.

Here's how you could catch insects the way he does. You can set up a lamp or some other bright light over a pan of water just outside your field or garden. When the light is on at night, insects will be attracted to it. They'll fly closer and closer, and then they'll fall into the water below and drown.

And how does he set up his lamp over a pan of water? He hangs it from a 3‑legged frame (a tripod) made from 3 poles. The poles are about 2 metres (6 feet) long. He ties the tops of the poles together, and sets the bottom ends into the ground some distance apart from each other. This forms a tripod or 3‑poled frame.

You could make a tripod like that and hang a kerosene lantern, an electric light, or some other kind of light from the top. It's best if your light is at the edge of your field or garden. Now some kinds of light attract more insects than others, so if you have different types, you could try them out to see which is best for you.

Make sure, though, that your tripod is sturdy and that the lamp is securely attached, so it can't fall over and start a fire.

Now to complete your insect trap, you'll need a container for water, a shallow pan or basin. It doesn't have to be deep, but it's best if it's fairly wide across the top. Place it right below the light—that way the insects will fall into it when they fly up to the light at night.

Now see what you have. A tripod close to your garden with a light hanging below the top of it, and a wide container for water on the ground directly below the light. You must now fill the pan with water. It's good to add a few drops of cooking oil or kerosene to the water. The oil will float on the water and stick to the wings of insects that fall in, so they can't fly away.

Light the lamp in the evening, and leave it on all night if you can, until early in the morning.

You'll get the best results if you set the light trap up at the time of year when the insects you want to catch have just started to fly around. This way you'll catch as many as possible before they have a chance to lay their eggs.

It's good to check the trap regularly to see what kinds of insects are being caught, and how many. Use the trap only if the insects it's catching are mainly harmful insects, not helpful ones.

You'll probably decide to use the trap only at certain times of year, when it catches lots of *pest* insects. At other times, it may not catch enough pests to make it worthwhile.

People who use insect light traps like this say it's a good way to cut down on the number of pests that damage their field and garden crops. For one thing, it costs less money than buying chemical pesticides. Another good thing is that they're dealing with their pest problem without using poisons that could be harmful to people, or to animals.

Serving Agriculture, the Basic Industry, this is Barbara Peacock.

**Notes**

Another DCFRN item contains information that is directly related to this item. It provides basic information your farmers should have in their minds before they learn about the ideas in this item.

You are therefore urged to present that information to your farmers before providing them with the information in this item. The previous item is:

Knowing Insect Life Cycles Helps You Control Pests ‑ DCFRN Package 10, Item 8.

2. Other DCFRN items on non‑chemical control of insects that attack crops include the following:

Chickens Reduce Insects in Fruit ‑ DCFRN Package 4, Item 9B

Simple Solution to a Big Pest Problem ‑ DCFRN Package 7, Item 9B

Preventing Insect Pest Damage to Crops ‑ DCFRN Package 10, Item 9

Raising Ducks in the Paddy Field ‑ DCFRN Package 11, Item 5

**Sources of information**

1. Jim Rankin, Director of Gardening, Solusi College, Seventh Day Adventist Seminary, Bulawayo, Zimbabwe.