

## **De-Bugging** The Bugs

not. this generation of farmers has become obsessed with killing bugs. Nearly every crop we grow must be "protected" from the chewers, suckers and spoilers that crawl, fly or hatch on our private Eden. And the more we fight, the richer the Chemical Company gets.

It is not only the indestructible insect that we must fight. We must

Whether we like to admit it or also do battle with fungi, bacteria, nematodes and virus. Add to that the weeds that choke and compete, and the battle never ends.

How did we come to this state of affairs, where the more we fight, the harder the battle becomes? Most defenders will say it was an economic necessity. We had to prove to ourselves that humans are really the dominant animals on

this earth, and no pesky little critter is going to prevent is front having wormless apples, cabbage

alfalfa! Greed has its good and bad points, I guess.

The struggle to "feed the world" has flooded the land with surplus food, while much of the world still goes hungry. Somehow, this strange enigma must be related to the warnings of "Silent Spring" that still go unheeded. Man has changed the ecological balance, and must face the consequence.

Not one single species of insect has been eradicated, nor has any plant disease or weed been totally conquered. Millions of dollars are spent each year in the attempt. All that is accomplished is a temporary protection of our investment, with the prospect of repeating the whole process next year, and the next, ad infinitum.

Our investment in field, garden and orchard is considerable, and simple economics will dictate that our investment must be protected. Chemical control of the pests that defile our crops makes good economic sense. Wormy and

Astunted fruit is not marketable, of history, economics, sociology and weedy or moth eaten grain makes no profit. But the other side of the equation

is easily ignored. What is all this chemical spritzing and dunking going to do to the Planet Earth? And to you and your grandchildren? Are there alternatives?

The alternatives to chemical "quick fixes" are usually very slow acting and long term affairs. They may even be more costly. The so-called organic cures are often too expensive, and produce poor or no result. They often provide a vehicle for the charlatan to prey on the emotions and the pocketbook of the unwary. The terminology used in promoting the product is often vague and misleading. The only profit they achieve is for the promoter and his salesman. They tend to polarize the public into extremes of chemical users and organic fanatics, with no middle ground.

There is a middle ground, and we must all recognize it sooner or later. It can only be reached by taking a broad view of humanity. It requires much education, in fields of history, economics, sociology and especially in science and natural history. The more we understand about the way our fellow creatures evolve, reproduce, and live, the better we will understand how they fit into the scheme of things without upsetting Man's dominion too much.

Fortunately we are beginning to pay more attention to developing plant varieties that are resistant to disease and insects. The door is opening wider to the ideas of biological control of pests, through the introduction of predators and parasites that keep crop pests within safe limits.

Cultural methods that inhibit pests and enhance crop quality are becoming more useful as we begin to understand that nature requires a balance in it's own favor.

Mankind's role in the domination of nature may not be to destroy the other life forms which seem to 'bug'' us.

The chief role of agriculturist of the future is to learn how mother nature uses her tricks. If you can't fool her, join her!

#### Rabies

#### And The

### **Dairy Producer**

By Dr. L. J. Hutchinson During 1986, rabies continued its advance through Pennsylavania. As part of a northward move through the Appalachian range, rabies has spread from southcentral Pennsylvania, generally in a northward and eastward direction. Racoons have been the main carrier, but other wild and domestic animals have been involved.

The total of laboratory-confirmed cases of rabies was 583 in Pennsylvania during 1986. Of these, 409 were racoons, 101 skunks, 24 fox, 19 cats, 17 bats, five groundhogs, three cows, two dogs, two horses and one donkey. In many of the domestic animal cases, including all three cattle cases, humans were exposed and rabies treatments were advised.

A new Pennsylvania law requires rabies vaccination of dogs and cats. Barn cats are excluded from the requirement. Keep in mind that farm dogs and cats are at high risk of rabies exposure, especially in highprevalence areas. Rabies-exposed, unvaccinated dogs and cats are a definite danger to your cattle and to humans. It may not be easy to get farm cats and dogs vac-



# controlled environment is the reason.

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cinated, but it is worth the trouble.

What about vaccinating cattle and other livestock?

There is a vaccine available for use in cattle, sheep and horses. You should consider the chances of exposure in deciding whether to vaccinate. Risk of exposure depends on prevalence in wildlife in your are and animal environment (confinement vs. pasture). Discuss with your veterinarian the advisability of livestock vaccination and arrange how to have your cats and dogs vaccinated.