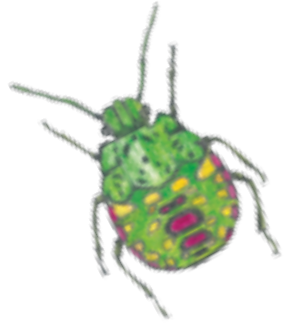


She explained to them how they had learnt that not all insects are bad. Some are useful and farmers should try not to kill them with spray. She showed them what was attacking their crops.



Everyone had a good look at a green vegetable bug that she had trapped, passing the little container around the crowd.

They learnt how to get rid of green vegetable bugs by not killing the good insects. Chenda told them that this way of looking after their crops is called 'integrated pest management' or IPM.

* See page 47 for more information on IPM.





'So, Sareth, you have no need to worry. We use IPM in our fields. A few little green vegetable bugs won't do much damage,' said Jorani reassuringly.

'Are there good insects in our fields right now?'

'Yes, Sareth, but some are so tiny you might not be able to see them.'

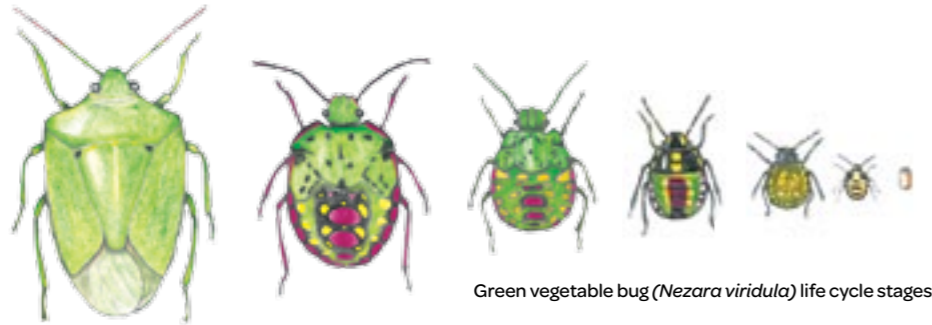
'How did our parents learn about IPM?' asked Sareth.

'Don't you remember? You were very little when we were invited to Thida's house that night.'

THIS IS WHAT THIDA AND CHENDA TOLD THEIR NEIGHBOURS.

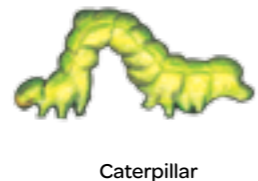
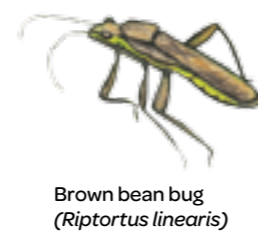
BAD BUGS

As well as the green vegetable bug, which sucks sap, there are many other kinds of insect that can damage the crop.



Other insects that suck sap include the brown bean bug and aphids.

There are also many types of caterpillar that hatch from eggs laid by moths. Caterpillars eat leaves, bore holes in pods or fruit, and eat the seeds.



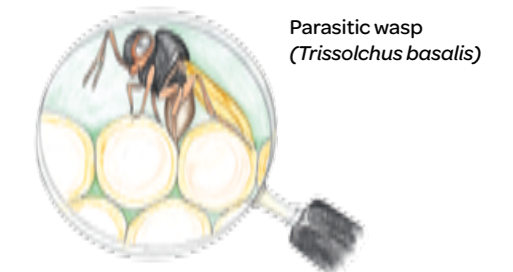
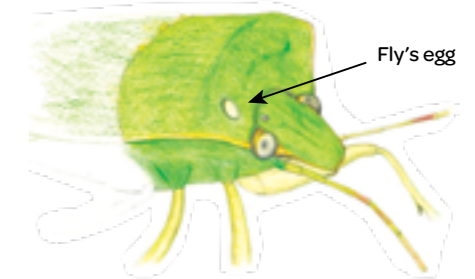
GOOD BUGS

There are many insects and spiders that eat other insects. Some eat them directly (predators); others lay their eggs on or inside them (parasites). These are called beneficial insects or 'good bugs' because they do not usually damage the crop.

There are flies that lay their eggs on green vegetable bugs so that the fly's larva develops inside the insect.

There are also small wasps that lay their eggs inside the eggs of green vegetable bugs, so that baby wasps hatch instead.

Other good bugs are not so fussy and eat a wide range of insects (mainly bad bugs). These include spiders, wasps, praying mantids, ants, lady beetles and shield bugs.





NOW IT'S YOUR TURN.

Tell your neighbours about IPM so we can encourage all of Samlaut to let the good bugs live to fight those nasty green vegetable bugs!



INTEGRATED PEST MANAGEMENT (IPM)

IPM uses a combination of methods to control bad bugs so that farmers can reduce their use of pesticides. Some of the control methods for soybean crops include:

- ensuring the crop is as healthy as possible
- planting early to avoid the high insect populations that are often experienced with late sowings
- monitoring pest levels to find out how much damage they are causing
- preserving good bugs to help control bad bugs
- using pesticides only if a lot of damage is being caused, and varying the types of pesticides to lower the risk of bad bugs becoming resistant to specific chemicals
- controlling weeds, which may also attract bad bugs to the crop
- avoiding alternative crops in the crop-rotation program that attract the bad bugs
- planting a trap crop (a crop that the bad bugs prefer) to attract the bad bugs away from the soybean crop
- talking with neighbours and other farmers in the area so that they use the same methods at the same time to control bad bugs on a large scale
- selecting crop varieties that display good pest and disease resistance.

FARMER FIELD SCHOOLS

Farmer field schools are 'schools without walls' composed of up to 30 farmers who meet once a week for the whole duration of the cropping season. They are designed to help farmers learn about IPM so they can reduce the use of pesticides and improve the sustainability of their crop yields.

You can learn more about IPM and farmer field schools from the Department of Agronomy and Agriculture Land Improvement in the Cambodian Ministry of Agriculture, Forestry and Fisheries (www.maff.gov.kh/eng/depts/daald.html).

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