

What is a rice leaffolder?

The adult rice leaffolder (*Cnaphalocrocis medinalis*) is a yellow-brown moth. Leaffolder caterpillars fold a rice leaf around themselves and attach the leaf margins together with silk strands. Each female lays about 300 eggs at night during its lifetime of 3-10 days.

Should I control rice leaffolder?

By themselves, leaffolders rarely cause much—if any—yield loss. Folded leaves, restrict photosynthesis and while inside the folded leaf, the caterpillar feeds by scraping off the leaf surface tissue. The damage looks bad, but rarely reduces yields. For example, before panicle initiation (PI), 50% of the leaves can be damaged without reducing yield. Rice plants are susceptible to leaffolders from seedling to flowering. If the leaffolder damages the, flag leaf (i.e., the last leaf to emerge from the plant), yield could be reduced.

How do I control rice leaffolder?

Prevention

Let natural enemies help you. Biological control agents of leaffolders include parasitic wasps, predatory beetles, spiders, and predatory crickets (*Anaxipha* sp.). Killing biological control agents with pesticides could lead to pest outbreaks. Therefore, do not use insecticides indiscriminately. Sometimes you'll find dead larvae turning black and hanging from leaves. These caterpillars are infected with a virus. Such dead caterpillars can be collected, crushed in a small amount of water, and sprayed on the crop to spread the virus to other caterpillars.

Cultural practices that prevent leaffolder outbreaks:

- Follow rice with a different crop, or fallow period.
- Avoid ratooning.
- Flood and plow field after harvesting if possible.
- Remove grassy weeds from fields and borders.
- Reduce density of planting.
- Use balanced fertilizer rates

Control

Look for leaffolders from tillering to flowering. Carefully break the silk strands that hold the edges of folded leaves and remove the caterpillars inside. Do not drop the live caterpillars into the paddy water; they may find their way back onto rice plants. Caterpillars can be fed to chickens or ducks, or made into compost. Dry and crush the caterpillars to make fish food.

Chemical control: Many farmers in Asia lack the necessary safety equipment and expertise to use pesticides safely and therefore should not use them. See a crop protection specialist for guidance specific to your situation.



a) Leaffolder adult, b) Leaffolder caterpillar form, and c) rolled leaves caused by leaffolder.

For more information:

- For more on rice leaffolder, visit the IPM materials at <http://www.knowledgebank.irri.org>.
- To diagnose problems in the field visit Rice Doctor at <http://www.knowledgebank.irri.org/ricedoctor>.