

CASE

*Curriculum for Agricultural
Science Education*

Principles of Agricultural Science – Plant

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All about Bugs

Unit 8 – Surviving a Harsh Environment
Lesson 8.1 Pesky Bugs and Plants

Insects Plight

Insects cause billions of damage to plant crops each year.

They are the single greatest cause of financial loss for crop production.



Breaking the Cycle

- When controlling plant pests, knowledge of pest life cycles is vital.
- Pests become a threat at certain stages of their life span.
- Pests are sometimes best controlled at certain stages of their life span.
- Eliminating a pest before reproduction is vital to population control.

Insect Metamorphosis



As insects go through stages of development from eggs to an adult, their transformation is called metamorphosis.

Two types of metamorphosis:

- Incomplete
- Complete

Incomplete Metamorphosis

Also known as gradual metamorphosis:

- All stages have the same eating habits
- Example: Grasshopper Transformation

Egg → Early Nymph → Late Nymph → Adult

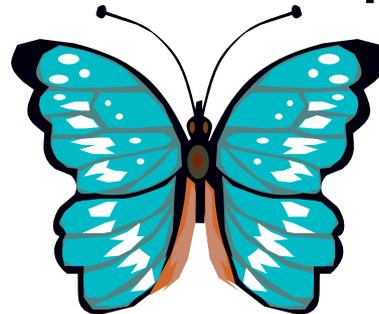


Complete Metamorphosis

Complete metamorphosis has the extreme variation of anatomical features:

- Larva and adult stages have different eating habits
- Example: Butterfly Transformation

Eggs → Larva → Pupa → Adult



How Insects Eat at Various Stages

-  Adult insects: vegetation feeders or plant tissue fluid suckers.
-  Larvae insects: boring into stalks, feeding on young plants or roots.
-  For example, rootworm larvae feeds on corn roots while rootworm adult feeds on corn silk.

References



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