

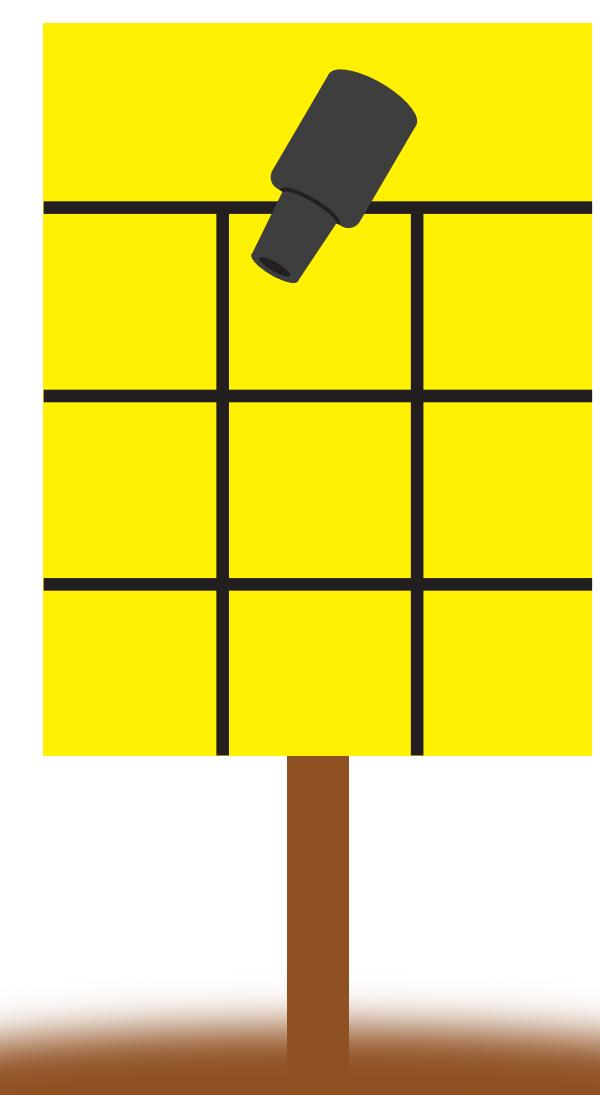
# Cycle of pepper weevil (*Anthonomus eugenii*) infestations and their control in U.S. North Central region

1 THE OHIO STATE UNIVERSITY  
COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

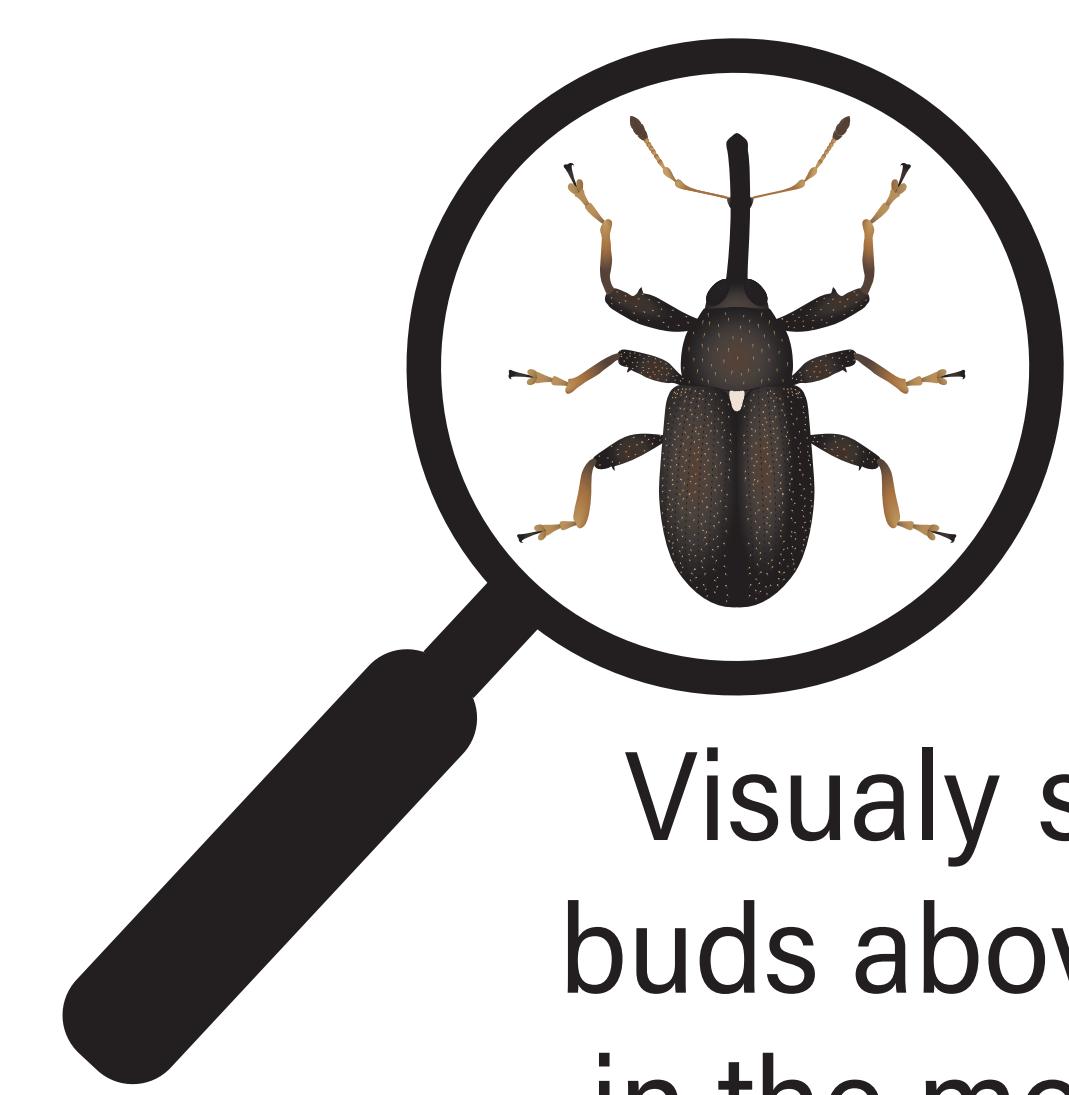
Grace Sward<sup>1</sup>, Nuris Acosta<sup>1</sup>, Erick Martinez<sup>1</sup>, Elizabeth Long<sup>2</sup>, Luis Canas<sup>1</sup>

2 PURDUE  
AGRICULTURE

## MONITOR<sup>B</sup>



Pheromone baited  
sticky traps placed  
above foliage around  
perimeter of pepper  
and cull fields



Visually scout  
buds above line  
in the morning

Monitor at bud formation

Start control strategies when threshold is reached:  
0.25 - 1% of buds with 1 adult pepper weevil

Egg

Eggs laid  
in buds leave  
oviposition scar

Larvae

1<sup>st</sup> instar

3 larval instars  
feed on pepper  
and seeds inside  
the fruit

2<sup>nd</sup> instar

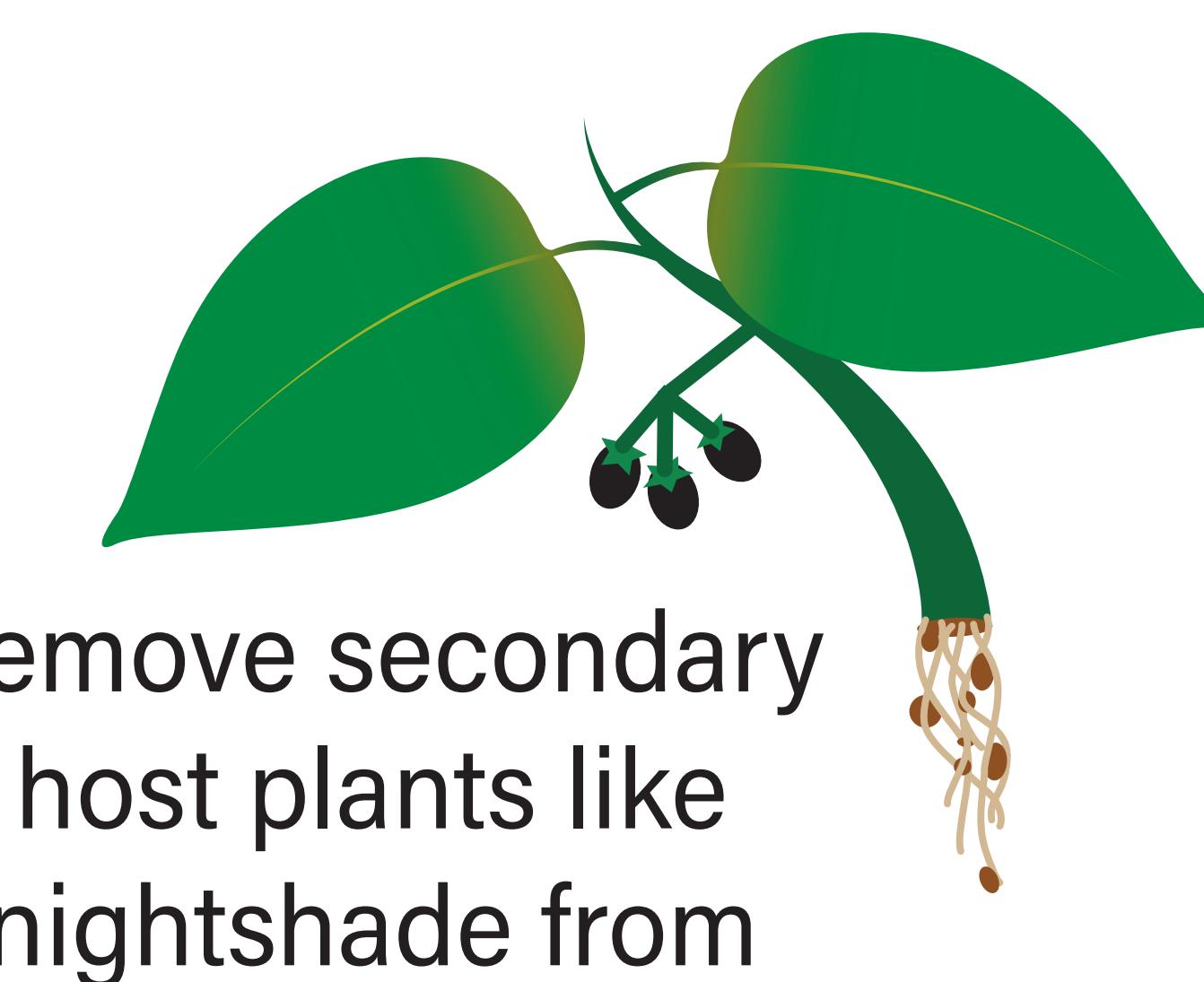
3<sup>rd</sup> instar

Pupa

## CONTROL<sup>C</sup>



Insecticide  
applications should  
target adults when  
active in morning



Remove secondary  
host plants like  
nightshade from  
pepper fields

## IDENTIFY<sup>A</sup>



Tooth-like spur  
on every femur

Key ID features



Patch of white  
rice-shaped scales

Adults move from  
damaged fruit in  
cull fields to healthy  
plants

Fruits dropped  
in cull field

Adult

Manage cull fields

Adults chew  
their way out of  
fruit



Break apart culled  
peppers using mechanical  
means once per week  
(April - Oct.)

