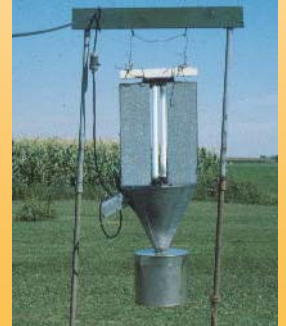


# Moth Identification Guide for Blacklight Trap Catch in Wisconsin

## Tips for Moth ID:

- Empty the trap frequently, preferably every other day
- Examine **fresh specimens**; identifying characteristics fade with age
- Ignore moths with a **wingspan less than about 1 inch** or **greater than 3 inches**; they are not economically important in field and vegetable crops
- **Avoid handling moths by their wings**; identifying characteristics can be rubbed off
- Use **forceps or tweezers to handle moths**; fingers are more likely to rub off scales

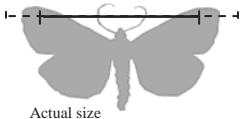
Most pictures featured in this guide were taken of moths caught in a blacklight trap and may exhibit minimal damage



## European Corn Borer (*Ostrinia nubilalis*)



FEMALE



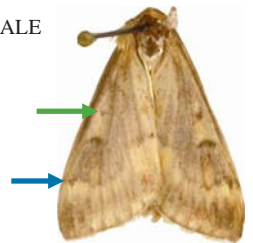
Actual size

**Wingspan:** 1–1¼ in (2.5–3 cm)

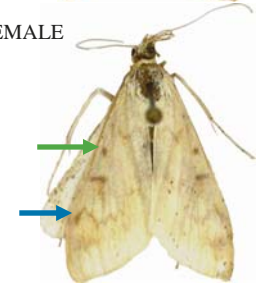
### Forewing

- Straw colored/light brown, males darker than females
- Pale box with dark spot inside near leading edge
- Dark wavy line two-thirds of the way toward outer edge

MALE



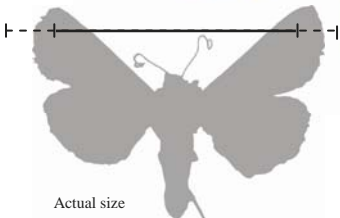
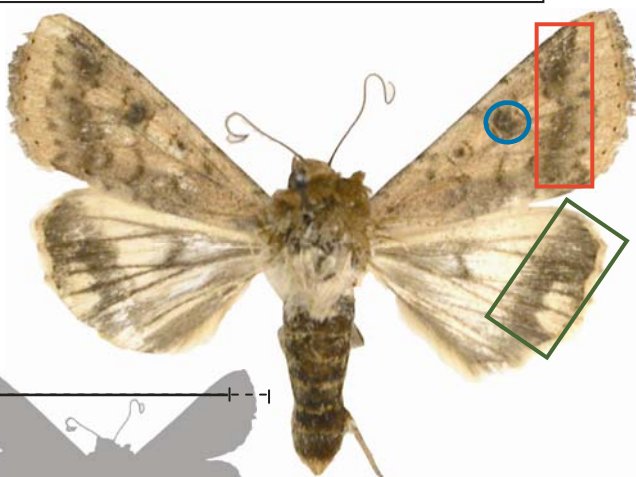
FEMALE



Flight Calendar  In flight  Peak flight

April	May	June	July	August	September

## Corn Earworm (*Helicoverpa zea*)



Actual size

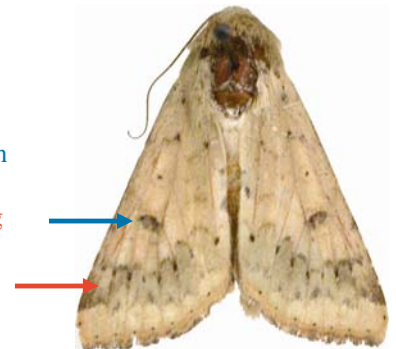
**Wingspan:** 1¼–1¾ in (3–4.5 cm)

### Forewing

- Tan/light brown
- Many dark blotches
- Large bold spot halfway between body and wing tip
- Wide, dark band near outer wing edge

### Hindwing

- Dark edge with light spot



Flight Calendar  In flight  Peak flight

April	May	June	July	August	September

## Spotted Cutworm (*Xestia dolosa*)

Nearly indistinguishable from *Xestia c-nigrum*



**Wingspan:** 1½–1¾ in (4–4.5 cm)

### Forewing

- Fairly even brown-gray color
- Pale brown/pinkish triangle in a black box
- Black notch near wing tip

### Hindwing

- Pale brown

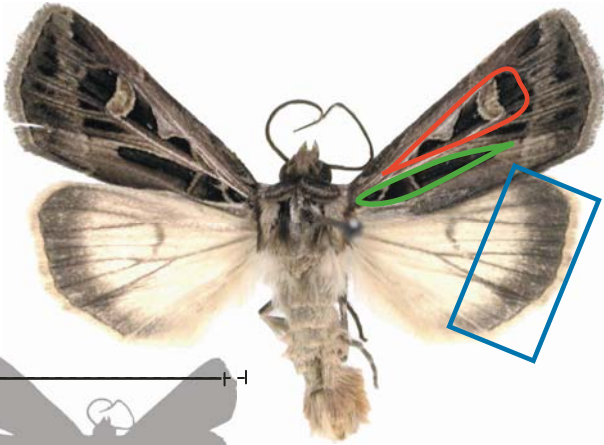


Actual size

Flight Calendar   In flight   Peak flight

April	May	June	July	August	September

## Dingy Cutworm (*Feltia jaculifera*)



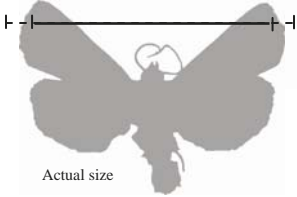
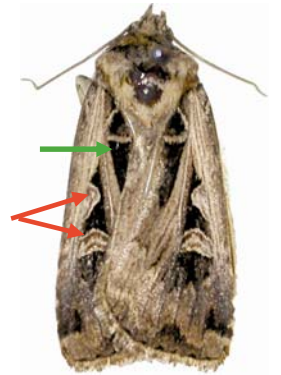
**Wingspan:** 1¼–1½ in (3–4 cm)

### Forewing

- Pale triangle and kidney shape within a black swath
- Black wedge

### Hindwing

- Pale with dark veins
- Dark band along outer wing edge



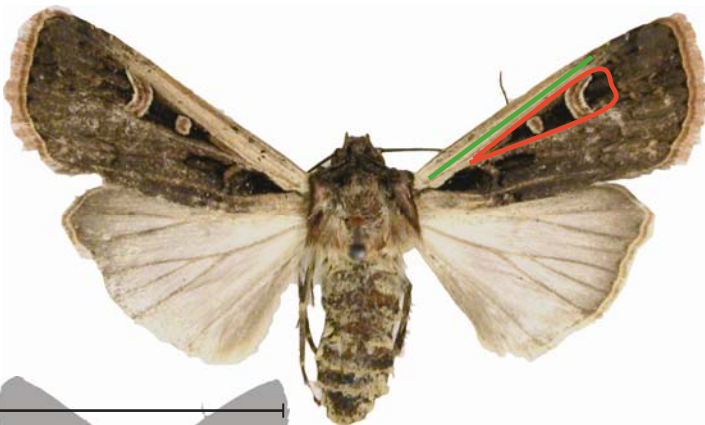
Actual size

Flight Calendar   In flight   Peak flight

April	May	June	July	August	September

## Western Bean Cutworm (*Striacosta albicosta*)

Formerly *Richia albicosta* and *Loxagrotis albicosta*



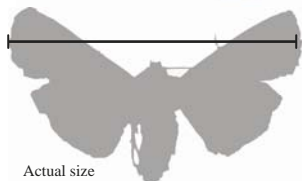
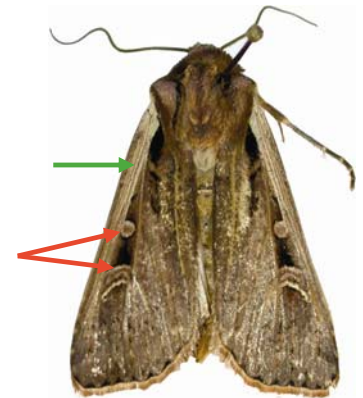
**Wingspan:** 1½ in (4 cm)

### Forewing

- White leading edge
- Pale brown circle and crescent within black swath
- Pale fringe along outer wing edge

### Hindwing

- White/cream colored



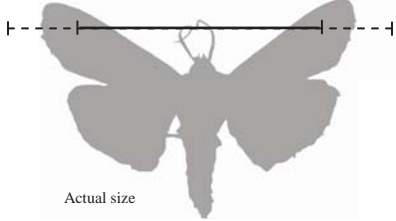
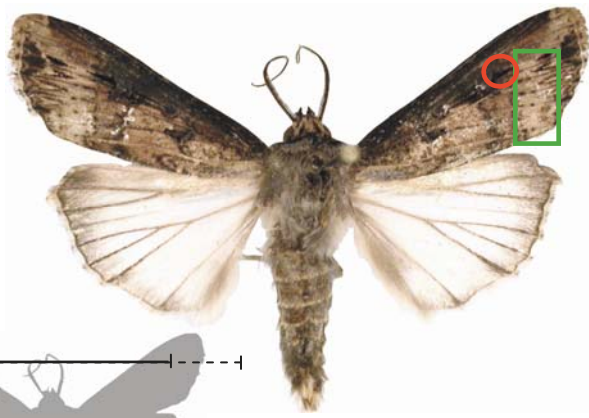
Actual size

Flight Calendar   In flight   Peak flight

April	May	June	July	August	September



## Black Cutworm (*Agrotis ipsilon*)



Actual size

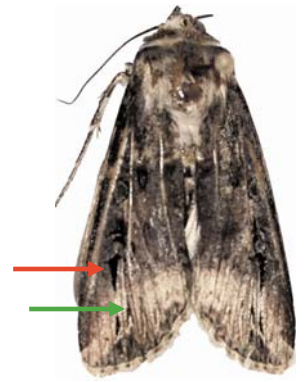
**Wingspan:** 1¼–2 in (3–5 cm)

### Forewing

- Dark brown to black leading edge
- **Dagger mark two-thirds of way toward outer edge**
- **White band across width near outer wing edge**

### Hindwing

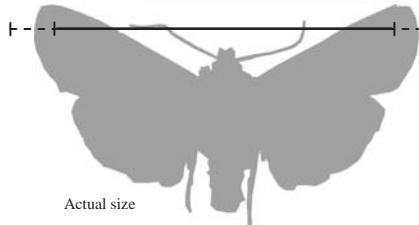
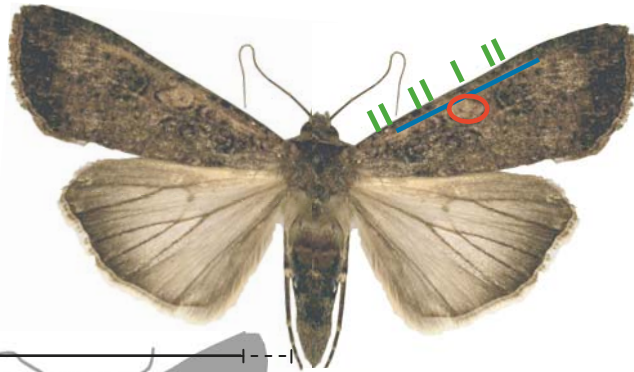
- White with dark veins



Flight Calendar   In flight   Peak flight

April	May	June	July	August	September

## Variegated Cutworm (*Peridroma saucia*)



Actual size

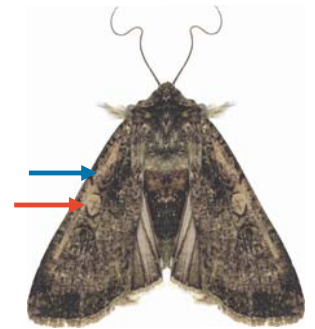
**Wingspan:** 1¾–2¼ in (4.5–5.5 cm)

### Forewing

- Speckled, gray to brown, individuals vary in darkness
- **Seven dashes along leading edge (more visible in some specimens)**
- **Pale line along leading edge**
- **Pale spot halfway between body and outer wing edge**

### Hindwing

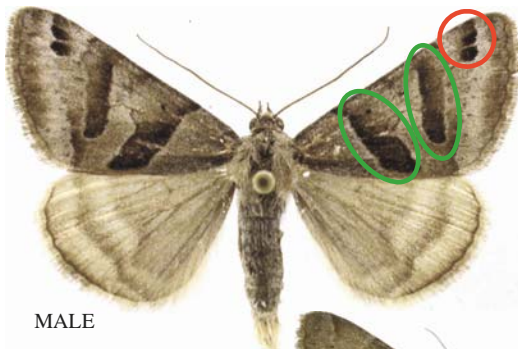
- Gray with dark veins



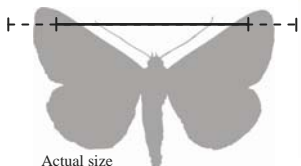
Flight Calendar   In flight

April	May	June	July	August	September

## Forage Looper (*Caenurgina erecta*)



MALE



Actual size

**Wingspan:** 1–1½ in (2.5–4 cm)

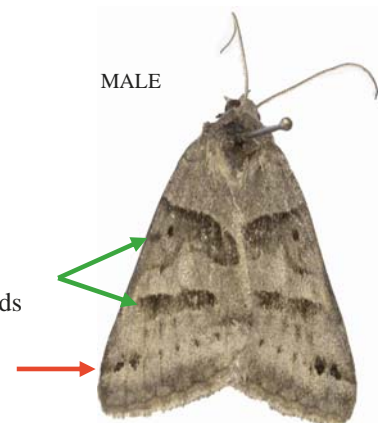
### Forewing

- **Two bands cross width of wing**  
-filled in on male  
-outlined on female
- **Dark double-fingerprint spot near wing tip**

### Hindwing

- Dark tan/brown with two pale bands across outer third of wing

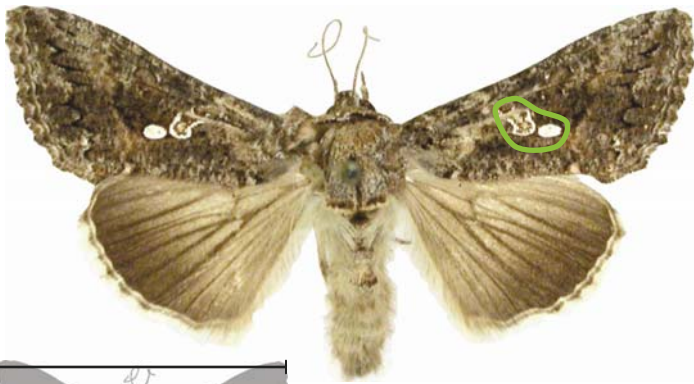
MALE



Flight Calendar   In flight   Peak flight

April	May	June	July	August	September

## Cabbage Looper (*Trichoplusia ni*)



**Wingspan:** 1½ in (4 cm)

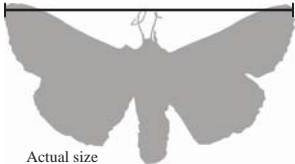
### Forewing

- Mottled brown-gray
- Silvery-white U-shaped mark next to (sometimes connected to) a silvery white egg-shaped spot



### Hindwing

- Pale brown, darker along outer wing edge

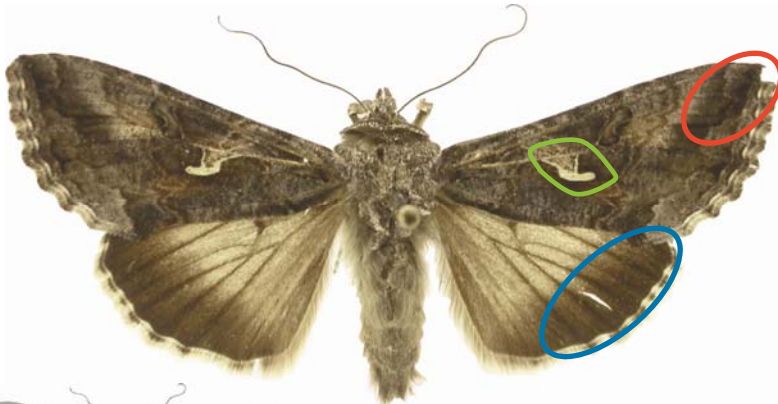


Actual size

Flight Calendar  In flight

April	May	June	July	August	September

## Alfalfa Looper (*Autographa californica*)



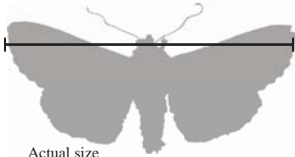
**Wingspan:** 1½ in (4 cm)

### Forewing

- Mottled brown
- Silvery-white V-shaped mark merged into a slipper shape
- Dark band near wing tip

### Hindwing

- Pale brown wing with dark band along outer edge

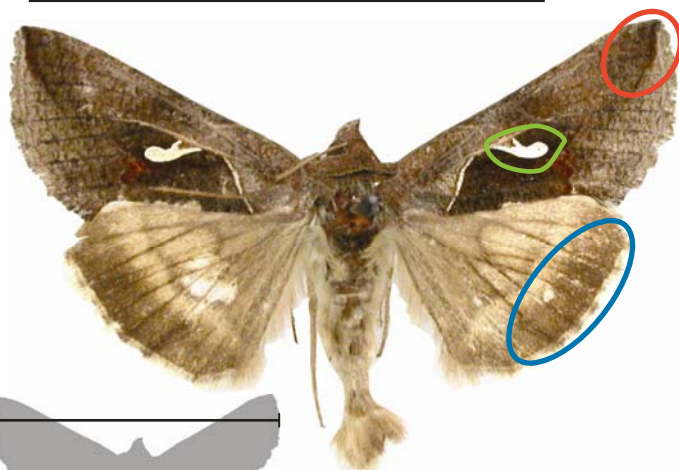


Actual size

Flight Calendar  In flight

April	May	June	July	August	September

## Celery Looper (*Anagrapha falcifera*)



**Wingspan:** 1½ in (4 cm)

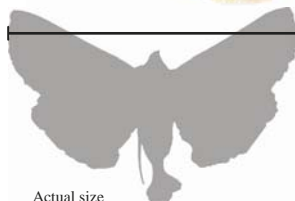
### Forewing

- Can be light brown to dark red-brown
- Silvery-white swoosh with a short spur
- Smooth dark line near wing tip



### Hindwing

- Pale brown wing with dark band along outer edge



Actual size

Flight Calendar  In flight

April	May	June	July	August	September



## True Armyworm (*Mythimna unipuncta*)

Formerly *Pseudaletia unipuncta*



**Wingspan:** 1¼–1¾ in (3–4.5 cm)

### Forewing

- Pale tan tinged with orange
- Lightly speckled
- White spot on center of forewing
- Dark line near outer wing edge, solid at tip then dotted extending inwards

### Hindwing

- Gray-brown with dark veins
- Darker near outer wing edge

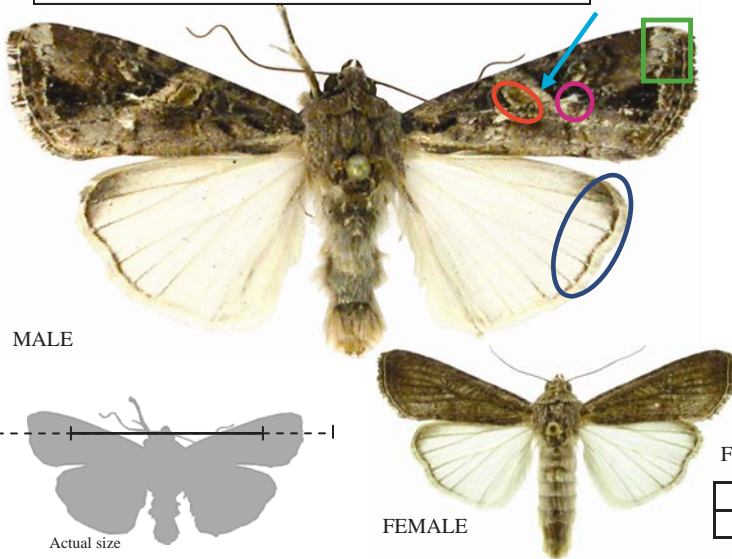


Actual size

Flight Calendar   In flight   Peak flight

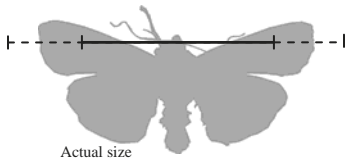
April	May	June	July	August	September

## Fall Armyworm (*Spodoptera frugiperda*)



MALE

FEMALE



Actual size

**Wingspan:** 1–1¾ in (2.5–4.5 cm)

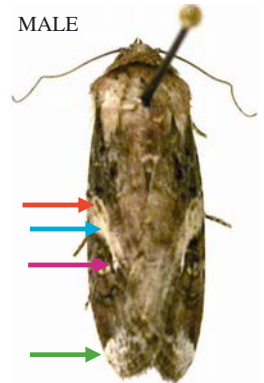
### Forewing

- Markings distinct on male, vague on female
- Brown/orange spot halfway out to outer wing edge
- Pale arc next to spot
- White spot on center of forewing
- White patch at wing tip

### Hindwing

- White
- Dark line along outer wing edge

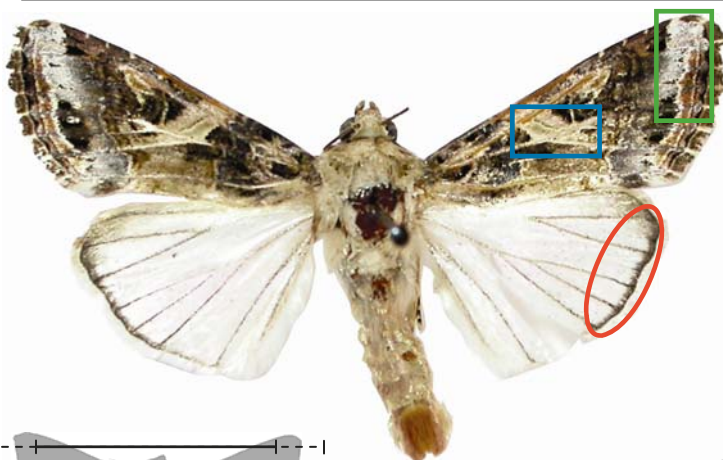
MALE



Flight Calendar   In flight

April	May	June	July	August	September

## Yellow Striped Armyworm (*Spodoptera ornithogalli*)



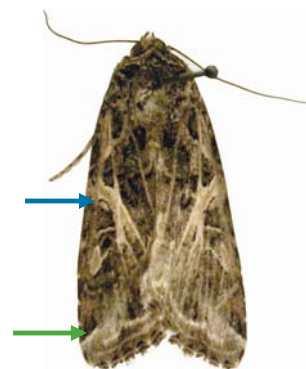
**Wingspan:** 1¼–1¾ in (3–4.5 cm)

### Forewing:

- Heavily patterned with tan, black, brown, and white marks
- Yellow/white swath in middle of wing
- White patch at wing tip

### Hindwing

- White
- Dark outline along outer wing edge

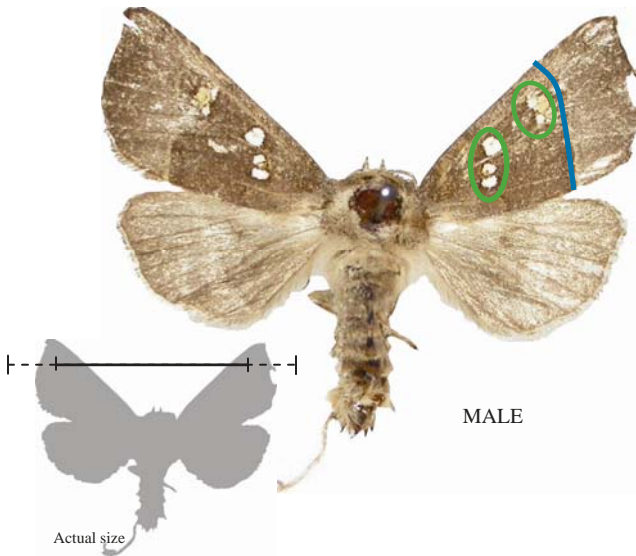


Actual size

Flight Calendar   In flight   Peak flight

April	May	June	July	August	September

## Stalk borer (*Papaipema nebris*)



MALE



FEMALE

**Wingspan:** 1–1½ in (2.5–4 cm)

### Forewing

- Pale line separates outer, more pale third of wing
- Two sets of spots either lighter (male) or darker (female) than the wing background

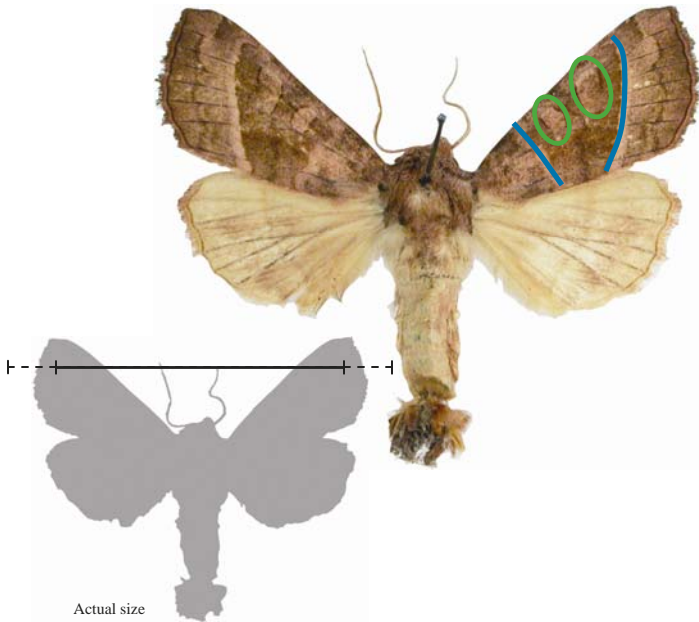
### Hindwing

- Tan

Flight Calendar  In flight

April	May	June	July	August	September

## Hop Vine Borer (*Hydraecia immanis*)



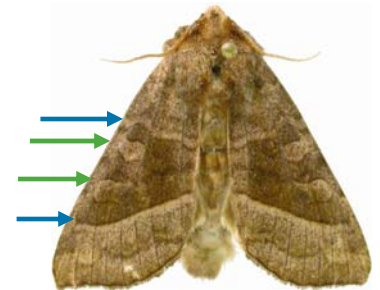
**Wingspan:** 1½–2 in (4–5 cm)

### Forewing

- Pinkish brown
- Two pale lines divide wing length into thirds
- Two pale spots in middle third of wing, near the leading edge

### Hindwing

- Tan



Flight Calendar  In flight

April	May	June	July	August	September

### Tips on operating a blacklight trap:

- Put trap on a farm growing field or vegetable crops that are hosts for moth caterpillars.
- Position trap so it has unobstructed exposure for a minimum of 200 ft for at least 180° around the trap.
- Avoid putting trap near other sources of light.
- Be sure to replace kill strip when its potency decreases—a fast kill is necessary to maintain an identifiable specimen. There are usually guidelines on the package indicating how long the kill strip will last, but other signs that the strip may need to be replaced include low catch numbers and moth specimens with significant damage (torn wings, identifying features worn away).

If you are not seeing population peaks when you expect them, or if you have inconsistent or low moth numbers, keep in mind that environmental changes will influence how many moths your trap catches. For instance, moonlight, barometric pressure, wind velocity, humidity, temperature, and crop phenology all influence moth activity.



This blacklight trap location is not ideal because one side is blocked by a building, however it is acceptable because it is open at least 180° around the trap.



This trap location is also not ideal because there is a building within 200 ft of the trap on one side, but it is acceptable if there are no other obstructions in a 180° radius of the trap within 200 ft.

## Additional references

### Publications

The following publications, available from Cooperative Extension's Learning Store, provide additional information on field crop moth pests. (Go to [learningstore.uwex.edu](http://learningstore.uwex.edu) and follow the links to Farming > Pest Management.)

*Corn Earworm* (A3655)

*European Corn Borer* (A1220)

*Western Bean Cutworm: A Pest of Field and Sweet Corn* (A3856)

*Biological Control of Insects and Mites: An Introduction to Beneficial Natural Enemies and Their Use in Pest Management* (A3842)

*Bt Corn and European Corn Borer: Long-Term Success Through Resistance Management* (NCR602)

*Insect Resistance Management and Refuge Requirements for Bt Corn* (A3857)

*Pest Management in Wisconsin Field Crops* (A3646)

### Online resources

Wisconsin Pest Bulletin—Information on current moth flights. Prepared by the Department of Agriculture, Trade & Consumer Protection ([pestbulletin.wi.gov](http://pestbulletin.wi.gov)).

Wisconsin Crop Manager—Timely articles on field crop pest management by University of Wisconsin Integrated Pest and Crop Management ([ipcm.wisc.edu](http://ipcm.wisc.edu)).

Western Bean Cutworm Monitoring Network—Hosted by Iowa State University, this site reports weekly pheromone trap captures across the North Central region ([www.ent.iastate.edu/trap/westernbeancutworm](http://www.ent.iastate.edu/trap/westernbeancutworm)).



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**Moth Identification Guide for Blacklight Trap Catch in Wisconsin** (A3855)