

PEACH TWIG BORER (PTB)

Anarsia lineatella

Description:

Adults:

Adults are 0.3-0.4 in (8-10 mm) in length with steel gray with white and gray mottled forewings that are lightly fringed. Hindwings are lighter gray and more heavily fringed.

Eggs:

Yellowish white to orange in color and oval.

Larvae:

Newly hatched larvae are almost white with a distinct black head capsule. As they mature, larvae become dark brown in color with alternating dark and light bands around the abdomen. Mature larvae are approximately 0.5 in (12 mm) in length.

Pupae:

Pupae are approximately 0.25-0.4 in (6.3-10 mm) in length, brown in color, and lack a cocoon. Pupation takes place in protected areas on the tree or in the stem cavity of infested fruit.



Left: PTB adult (source: lepidopteragallery.org). Right: PTB larva in hollow twig (source: E. Beers, WSU Tree Fruit).

Hosts:

Almonds and stone fruits.

Damage:

- Peach twig borer damage stone fruit by feeding in shoots, causing shoot strikes, or feeding directly on fruit.
- Larvae generally enter fruit at the stem end and feed just below the skin.

Phenology:

- Overwinters as first or second instar larvae in hibernacula under bark of limbs.
- Adults of the overwintered generation emerge in April or early May.
- First generation larvae develop in twigs during May and June and the second flight of moths occurs in late June or early July.
- Three to four generations per year depending on weather.

Life Stages / Degree-Days:

Life Stage	Average D° F	Average D° C
Bio-fix to first egg hatch:	220	122
Larvae complete:	507	281
Pupae complete:	333	149
First Generation:	1060	588

(Threshold temps: 50 and 88°F or 10 and 31.1°C)

Lure Type and Maintenance:

Lure type	Replacement
PHEROCON® PTB Standard	4 weeks
PHEROCON® PTB L ²	8 weeks

Lure Storage:

- Store in unopened factory-sealed packages in a cool place (< 74° F or 24° C maximum) for short periods until used.
- Caution: Do not carryover.

Trap Design:

- PHEROCON® 1C, PHEROCON® VI DELTA, or PHEROCON® IIC.

Placement Time:

- In California, by March 20 in San Joaquin Valley and by April 1 in Sacramento Valley.
- In Washington, by early May.

Placement Pattern:

- Within interior of orchard in a grid pattern.
- Within tree 6-7 feet (1.8-2.1 meters) high in the NE quadrant of the tree.

Trap Density:

Number of traps	Acres	Hectares
Minimum of 2	< 10	< 4
1 per 10 acres (4 hectares)	11-100	4-40
1 per 20 acres (8 hectares)	> 100	> 40

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Trap Maintenance:

- Check traps two to three times per week.
- Remove insects and stir glue when checking.
- Replace trap liners when fouled with dust or insect debris, or after 50 moths have been counted and removed from liner.

Recommendations:

- Check traps frequently until biofix.
- Accumulate degree days; monitor twice weekly.
- Spray at 400-500 D° F or 222-278 D° C from beginning of first flight.
- Continue monitoring for second flight. If necessary, make a second application at 400 D° F or 222 D° C after second biofix.

Supplementary Monitoring Techniques:

- Monitor for shoot strikes on new growth in mid-March.
- Examine fruit on trees every other week after color break to detect any developing problems or larvae in fruit.
- Sample fruit damage at harvest to assess effectiveness of the IPM program.

Source: Recommendations and certain other sections were sourced from UC IPM Pest Management Guidelines for Peach Twig Borer and from WSU Tree Fruit Peach Twig Borer guidelines.

Note, always:

- Use only one lure per trap.
- Count and record captures as recommended.
- Change trap as needed.
- Discard lures in trash far from the area of use and remove trash afterwards.
- Follow recommendations.
- Contact local extension authorities and consultants for regional advice.