



# FALL & WINTER IPM CHECKLIST

ESSENTIAL ACTIONS FOR OCTOBER THROUGH WINTER

Proactive IPM now prevents spring pest pressure. Use this checklist to stay ahead.

Note: Soil and canopy temperatures often run warmer than ambient air. These temperature ranges are guidelines, not hard limits—always check actual conditions before applying biologicals or drenches.

## GENERAL SANITATION

- ☐ Remove plant debris, weeds, and algae from benches, floors, and containers.
- ☐ Clean under benches and around greenhouse perimeters to eliminate pest refuges.
- ☐ Disinfect tools and propagation surfaces before use (use OMRI-listed products where possible).
- ☐ Eliminate standing water; improve drainage in all zones.
- ☐ Seal cracks and entry points in structures to reduce pest ingress.

## MONITORING & SCOUTING

- ☐ Place Horiver Yellow cards at canopy level and near entry points (1 per 1,000 sq. ft.); adjust height as plants grow.
- ☐ Use blue cards for thrips in high-risk crops.
- ☐ Check cards weekly for fungus gnats, whiteflies, and thrips.
- ☐ Inspect foliage and media for stippling, scarring, larvae, and eggs.
- ☐ Record pest pressure by zone and adjust strategy accordingly.

## ENVIRONMENTAL ADJUSTMENTS

- ☐ Maintain humidity below 70% to reduce thrips and whitefly pressure.
- ☐ Increase airflow in dense canopy areas to discourage pest buildup.
- ☐ Use row covers or insect netting in outdoor beds to reduce pest entry.
- ☐ Avoid overwatering; allow media to dry between irrigations.
- ☐ Install weed barrier fabric under benches to reduce pest harborage.

## TIMING & TEMPERATURE

- ☐ Use any remaining mild periods to target overwintering pests before deep cold sets in.
- ☐ Apply nematode drenches in fall for soil-dwelling stages such as thrips pupae and fungus gnat larvae where conditions allow.
- ☐ Apply nematodes for grubs (e.g., Capsanem) after the first thaw in early spring, when soil begins to warm and grubs move back toward the root zone.







## ZONE-SPECIFIC ACTIONS

Note: Soil and canopy temperatures often run warmer than ambient air. These temperature ranges are guidelines, not hard limits—always check actual conditions before applying biologicals or drenches.

### HEATED GREENHOUSE:

Spider mites:

- Anso-Mite – active from 43°F up to 95°F.

Thrips:

- Limonica – best at 59–86°F.
- Thripex – only if temps 59–77°F.

Important: Do not overlap generalist predatory mites in the same zone.

Microbial:

- Apply Entonem drenches for thrips and fungus gnats if media  $\geq 50^\circ\text{F}$ .
- Isarid during mild, humid conditions for thrips, aphids, and whiteflies.

Plant Strengthener:

- Dune during mild, humid periods to strengthen plant cell walls and improve resistance to chewing and sucking insects.

Parasitoids for Whitefly & Aphids:

- Ahipar-M – effective 59–82°F.
- En-Strip – effective 64–86°F.

### STOCK NOW

- Horiver Yellow cards
- Blue sticky cards
- Isarid (microbial option for thrips, aphids, whiteflies)
- Dune (strengthen plant cell walls and improve resistance to chewing and sucking insects.)

### ORDER AS NEEDED

- Entonem: Apply when media  $\geq 50^\circ\text{F}$ .
- Anso-Mite: Active from 43°F; ideal for cool-season spider mite prevention.
- Limonica: Active 59–86°F; best for thrips in cool-moderate temps.
- Thripex: Use only in heated zones 59–77°F.
- En-Strip: Effective 64–86°F for whiteflies.
- Ahipar-M: Effective 59–82°F for aphids.

### UNHEATED OR MINIMALLY HEATED

- Complete sanitation before deep cold sets in.
- Apply Entonem drenches in fall when media is  $\geq 50^\circ\text{F}$ .
- Use Horiver cards to monitor overwintering pest movement.
- Hold predator releases until warm spells in protected microclimates:
  - Anso-Mite for spider mites (active from 43°F).
  - Limonica for thrips ( $\geq 59^\circ\text{F}$ ).
- Microbial options during mild periods:
  - Isarid for thrips, aphids, whiteflies.
  - Dune to strengthen plant cell walls and improve resistance to chewing and sucking insects.

### OUTDOOR CONTAINERS & BEDS

- Perform fall cleanup: remove mulch, debris, and weeds.
- Plan for spring applications.
- Monitor overwintering pests under snow or mulch layers.
- Use physical barriers or covers to reduce pest entry in spring.
- If still in production & experiencing pressure, utilize cold-tolerant predators
  - Anso-Mite for spider mites (active from 43°F).
  - Limonica for thrips ( $\geq 59^\circ\text{F}$ ).
  - Entonem  $\geq 50^\circ\text{F}$
  - Ahipar-M  $\geq 59^\circ\text{F}$ .

This guide is provided by NaturalEnemies.com to support growers with real-world biological control strategies. All content is based on verified protocols and field-tested insights. For more resources, product support, or scouting tips, visit [www.NaturalEnemies.com](http://www.NaturalEnemies.com).

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