

# Efficacy and Risks of Insecticides against Thrips

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Insecticides are commonly used to control thrips in floriculture however effectiveness varies by active ingredient. One of the greatest risks of insecticide use is pesticide resistance.

## Insecticides

Insecticides can be 'classified' as:

- Systemic insecticides which can move into plant tissues and be transported throughout the canopy.
  - When drenched, **systemic insecticides can** protect leaves not flowers.
- Translaminar insecticides can move into plant tissues, but are localized to the treated tissues.
- Contact insecticides have to be in direct contact with **thrips** to kill.



## Insecticide Resistance and Mitigation

- Western flower thrips **is known to** develop insecticide resistance quickly.
- To delay or mitigate **insecticide** resistance,
  - **Use insecticides only when necessary.**
  - **Rotate insecticides among different modes of action or Insecticide Resistance Action Committee (IRAC) Group Numbers.**
  - **Combine cultural, biological, and chemical control measures.**

## Rotate Insecticides

- **Follow these simple guidelines for rotating insecticides against thrips:**
  - Rotate among different modes of action or IRAC numbers, not among different chemical classes or IRAC letters, **or product names.**
  - **If spraying weekly, rotate to a different IRAC number after two sprays.**
- Examples of right (✓) and wrong (✗) rotation programs:

✓ Acetamiprid (4A) ➔ Spinosad (5) ➔ Abamectin (6) ✓

✗ Acetamiprid (4A) ➔ Flupyradifurone (4D) ➔ Abamectin (6) ✗

## Protecting Flowers

- Foliar sprays are the main method of protecting flowers.
- Protection is limited to flowers that are opened at the time of the application.
- Residual efficacy **of insecticides against thrips are poor**, thus, not enough to protect flowers for a long time.
- Repeated foliar spray applications **are** required to protect flowers through the production cycle.

