



Chemical Control of Mites on Ornamental Plants

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Challenges in Mite Management

- Mites feed on the leaves, fruit and tissues of nearly all species of ornamental plants
- The life cycle of mites can be very short (4 days) so populations can build rapidly
- Extremely high numbers of mites can be found on plant surfaces
- Mites are not usually detected until plants are damaged
- Environmental conditions can cause mite populations to explode
- Mites can lay several hundred eggs

Challenges in Mite Management

Landscape

- Less availability of products
- Fewer application methods
- Landscape diversity
- Obtaining good coverage

Production

- Expense
- Re-entry times
- Worker safety
- Different production systems (greenhouse, shadehouse, outdoors, container, field, etc)

Challenges in Mite Management

Palms

- Application of product
 - Plant height
 - System products (time of movement to the foliage)
 - Injection (no healing at the injection site)
- Diversity of palms
- Native areas or other areas not suitable for pesticide application

Typical Mite Damage

- Initial damage appears as yellow or gray stippled patterns
- Severe damage includes plant yellowing, necrosis, and defoliation; overall appearance may be “bronzed”
- Presence of webbing (spider mites)

Monitoring for Mites

- Monitor regularly and often (every 7-10 days for problem plants)
- Monitor thoroughly
 - Use a hand lens
 - Shake the foliage over a white sheet of paper
 - When infestations are detected; monitor downwind
 - Check the underside of leaves (low populations)
- Many times mite damage is more severe during dry weather
- Some insecticides can flare mites

Insecticide Applications

- Inspect plants frequently to determine when and where to apply insecticides
- Apply insecticides before severe damage
- Thorough coverage (underside of leaves) is necessary
- The best mite control is not detrimental to natural enemies or non-target organisms

Miticides/Insecticides

- All these products can be used for control of mites
- Use the label for the correct site (i.e. production; landscape etc)
- Note any other precautions/restrictions on the label
- Systemic versus contact
- Effect on non-target (especially predatory mites)

Miticides/Insecticides

Abamectin (MOA 6)	Avid	<ul style="list-style-type: none">-Broad-Cyclamen-Eriophyid-False spider-Two-spotted-Mites (general)
Bifenthrin (MOA 3)	Talstar	<ul style="list-style-type: none">- Broad- Eriophyid- False spider- Two-spotted
Bifenazate (MOA 2)	Floramite	<ul style="list-style-type: none">- Red mite;- Two spotted

Miticides/Insecticides

Chlorfenapyr (MOA 13)	Pylon	-Broad -Cyclamen -Eriophyid -False spider -Two-spotted
Clofentezine (MOA 10A)	Ovation	- Two-spotted
Deltamethrin (MOA 3)	DeltaGard	- Mites (general)
Dicofol (MOA 20)	Kelthane	- Broad - Cyclamen - Red -Two-spotted

Miticides/Insecticides

Etoxazole (MOA 10B)	Tetrasan	-Two-spotted - Red mite
Fenbutatin-oxide (MOA 12)	Vendex	- Two-spotted
Fenpyroximate (MOA 21)	Akari	-Red mite -Two-spotted
Fluvalinate (MOA 3)	Mavrik	-Two-spotted - Mites (general)

Miticides/Insecticides

Hexythiazox (MOA 10A)	Hexygon	- Two-spotted
Pyridaben (MOA 21)	Sanmite	- Broad - Two spotted
Propargite (MOA 12)	Ornamite	- Red mite - Two spotted
Spinosad (MOA 5)	Conserve	- Red mite - Two spotted
Spiromesifen (MOA 23)	Forbid Judo	-Broad -Cyclamen -Eriophyid -False spider -Two-spotted

Biopesticides

Sulfur		-Broad
Horticultural oil		-Cyclamen
Insecticidal soap		-Eriophyid
Neem oil		-False spider
		-Two-spotted
		- Mites (general)

Neonicotinoid Compounds

- Systemic
- Highly recommended for homopteran pests (scales, mealybugs, aphids, psyllids, etc)
- May provide mite control
- May also be detrimental to predatory mites

Neonicotinoid Compounds (MOA 4)

Acetamiprid	TriStar
Dinotefuran	Safari
Imidacloprid	Marathon/Merit Discus/Allectus*
Thiamethoxam	Flagship

*Combination products (imidacloprid + pyrethroid)

Tenuipalpids

- Evidence of these products for control of mites in the family Tenuipalpids
 - Abamectin (Avid)
 - Pyridaben (Sanmite)
 - Fenbutatin-oxide (Vendex)
 - Dicofol (Kelthane)
 - Sulfur

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