

The Two-Spotted Spider Mite

The two-spotted spider mite (TSSM), *Tetranychus urticae*, is a web-forming mite that feeds on a number of key ornamental plants grown in greenhouses, outdoor containers, field and landscape plantings, as well as several important agronomic and horticultural crops. Two-spotted mites feed mainly on the underside of the plant leaf surface, using their stylets to penetrate plant cells and suck out their contents. Damage is first observed on leaf tissue as pale green mottling due to the loss of chlorophyll from damaged cells, and with continued feeding, leaves turn yellow with some brown areas. Severely damaged leaves may drop and with continued feeding, stunting and ultimately death of the plant are possible.



Mites are not insects but rather belong to the class Arachnida. Adult mites have 8 legs and no wings nor segmented bodies (that distinguish mites from insects). Their spherical bodies are generally translucent with long hairs and 2 dark spots about mid-body on adults (see picture).

Cultural Practices

- Maintain weed-free production areas. Mites feed on numerous hosts, so eliminate potential sources of mite populations.
- Inspect new shipments of plants for mites. Remove or treat plants that contain mites.
- Scout plants by checking the underside of leaves with a hand lens, particularly during the warmer months of the year.
- If using biological controls such as the predatory mite *Phytoseiulus persimilis*, release into crop well ahead of pest population build-up.
- TSSMs have a rapid reproductive and development potential (<7 days) when conditions are favorable. Resistance is likely with overuse of any one miticide. In addition, miticides may only control one stage of the mite's life cycle. Therefore, follow label recommendations for repeat applications and rotate miticide chemistries.
- Use appropriate water volume and application method to thoroughly cover the underside of plant leaves. In some cases, an adjuvant may be needed. Read the product label for recommendations.

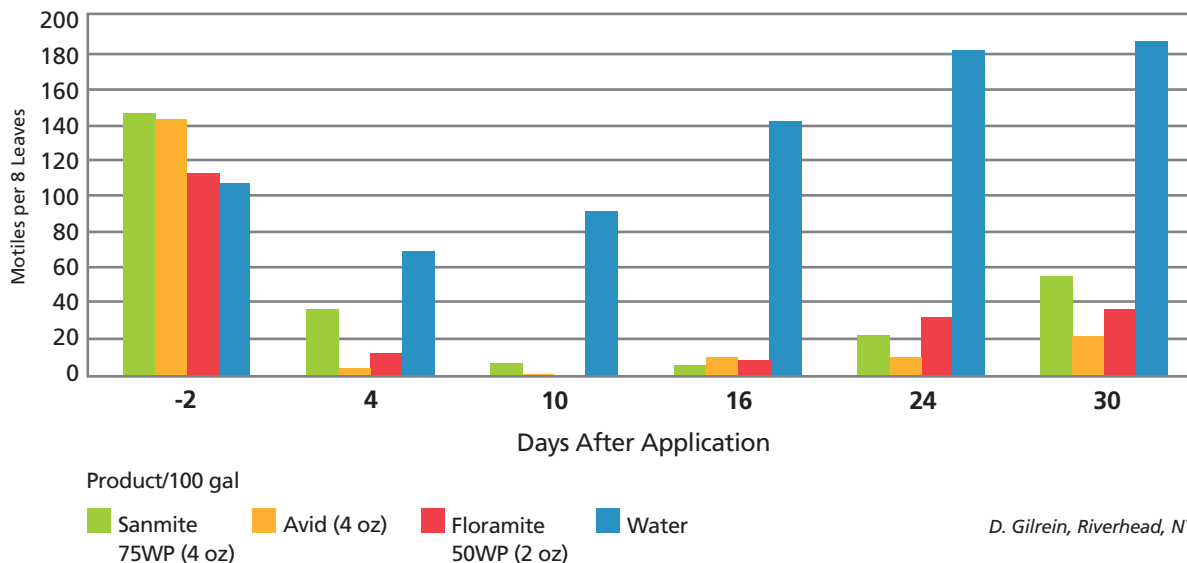
Sample Mite Control Program				
Greenhouses (with predatory mites)		Application	Outdoor Ornamentals	
Product	Rate/100 gal		Product	Rate/100 gal
Avid®	4 oz	1	Avid**	4 oz
Avid	4 oz	2	Scimitar®	4 oz
<i>Persimilis</i> release*			Avid**	4 oz
Floramite™	2–4 oz	3	Floramite	2–4 oz
Avid	4 oz	4		
Avid	4 oz	5		
Sanmite® or Akari®	4 oz 16–24 oz	6		
Avid	4 oz	7		
<i>Persimilis</i> release				
Floramite	2–4 oz	8		

Apply products at a 7 to 21 day interval depending on mite pressure. See product labels for restrictions on number of applications per year or crop.

* Wait 7–10 days after Avid application.

**A horticultural oil can be added at 0.5 to 1.0% (see label).

Two-Spotted Spider Mite Control on Potted Mini-Rose



The one online information source with the innovative services and technologies to help you manage your turf and ornamental needs.

www.greencastonline.com



Earn points with every Syngenta purchase through the industry's leading loyalty program. Register online today.

www.greenpartneronline.com

Call 1-866-SYNGENTA to contact the Syngenta Customer Resource Center and learn more about Avid and Scimitar.

Important: Always read and follow label instructions before buying or using these products. Syngenta Crop Protection, Inc. warrants that its products conform to the chemical description set forth on the products' labels. NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO SYNGENTA PRODUCTS. Syngenta Crop Protection, Inc. neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than such as is expressly set forth herein. UNDER NO CIRCUMSTANCES SHALL SYNGENTA CROP PROTECTION, INC. BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF ITS PRODUCTS. No statements or recommendations contained herein are to be construed as inducements to infringe any relevant patent now or hereafter in existence. ©2004 Syngenta. Syngenta Professional Products, Greensboro, NC 27419. Avid®, GreenCast™, GreenPartners™, Scimitar®, and the Syngenta logo are trademarks of a Syngenta Group Company. Floramite™ is a trademark of Crompton/Uniroyal Chemical. Sanmite® is a trademark of BASF. Akari® is a trademark of Sepro.

