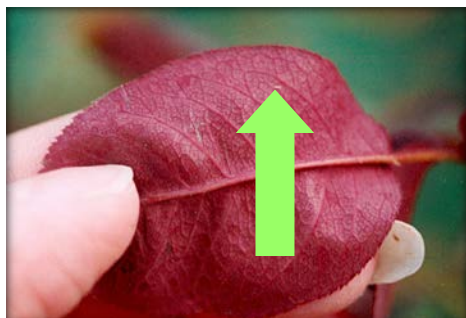


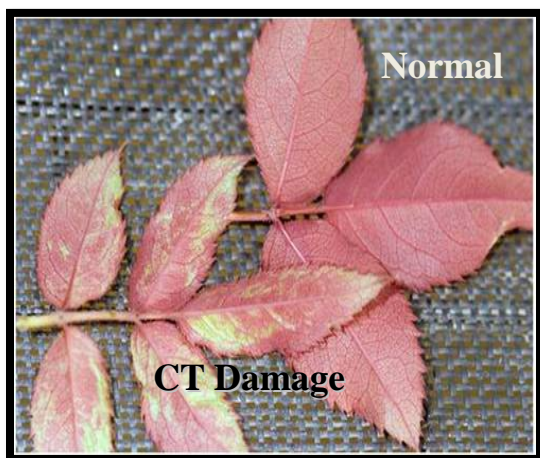
Pictorial Guide to Identifying & Treating Chilli Thrips

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If you can see them – it's probably not chilli thrips. Can be mistaken for gnats when flying in swarms.

Gardener Alert!
Chilli thrips attack more than 130 different types of plants that grow in Texas. If it grows here ... it is on the chilli thrips buffet



Target plants with new growth. Then moves from plant group to plant group as food supplies dwindle and new growth appears on something else.



Damage starts at the top of the plant and works its way down. Chilli thrips rarely feed on mature plant material.



Chilli thrips damage is often misdiagnosed -- even by experts as chemical burn, herbicide damage, spider/broad mite damage and sometimes even rose rosette disease.

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Intervention is critical for plant survival – especially with plants (e.g. Indian Hawthorn) that only produce new growth once a year. These Blushing Knock Out roses were totally defoliated by chilli thrips enough times before the cause was identified that the plants ultimately died.

Premature senescence and abscission of leaves is common.



Mottled or marbeling in the color change from red to green in roses can be evidence of chilli thrips. This alone is not a conclusive diagnosis of chilli thrips.



When leaves are fully green they appear puckered, distorted or have silvery or bronzing where feeding occurred. Can look like a mist of silver spray paint.

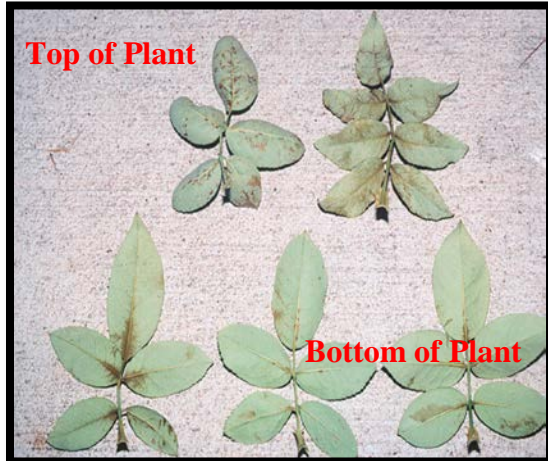


Rapid stem and bud development can occur as the plant tries to “grow out of” the damage. Buds can appear dry and brittle.



Bloom form can be distorted. This *St. Patrick* (hybrid tea rose) looks like a daisy.

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Leaf veining is common as immature chilli thrips suck the juice out of tender new growth causing scars on leaves along mid veins and at spots where leaflets attach to stems.



Curling of leaves at the top of *St. Patrick*. Note no damage on mature leaves (right) removed from the bottom of the plant.



Linear thickening of the leaf lamina is common with chilli thrips infestations.



Premature bud formation on stems 1/4th to 1/2" long – often with browning of tissue edges.



Brown or black markings on stems occur where eggs hatch and immatures emerge. This symptom can also be due to feeding damage.

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Rose leaves may appear as if they have been misted with black or silver spray paint. In many instances this is the **FIRST** sign of chilli thrips.



Slick stems with few leaves or undersized leaves is known as the “asparagus stem” symptom.



Abnormal lateral branching in absence of normal foliage is common with chilli thrips infestations. So is leaf formations that look like feathers.

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Tissue interruption at bud eyes cause rapid cane/bud development with a lack of foliage and/or feather-like foliage. Slick stems are a common symptom.



Slick stems with few or no leaves topped by a circlet of undersized leaves on the terminal end is known as the "lion's mane" symptom.

Gardener Alert!

Without control in one Texas season a chilli thrips population can increase from 40 to 419 Quadrillion

They will not go away on their own

Immediate identification and implementation of controls are critical

For more information go to:
www.houstonrose.org (Chilli Thrips)

Getting control:

1. Cut off all damaged parts of the plants. Bag and dispose of damaged plant material to reduce breeding populations. Do not compost infected plant material.
2. Start chemical treatment with products rated for chilli thrips (e.g. Spinosad, Imidacloprid, Dinotefuran, Abamectin). Nursery professionals also report Monterrey Horticultural Oil and Suffoil-X are effective suffocants. Only a few

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pesticides work on chilli thrips. Spray when pests are not swarming (best times before 10:00 a.m. and after 2:00 p.m.)

3. Biological controls are important in chilli thrips management. Some are *Amblyseius swirskii* (predatory mite) and *Orius insidiosus* (insidious flower bug)
4. Continue treatment until symptoms disappear.
5. Chilli thrips are problematic in Houston from May to September.

If you suspect that chilli thrips are in your garden:

1. Cut samples of leaves, buds and stems from symptomatic plants;
2. Put the samples in a gallon zip lock bag with a folded piece of dry paper towel;
3. Seal the bag;
4. Label the bag with (1) your name, (2) your contact information, (3) the city, county, state where the sample was taken, (4) date the sample was taken and (5) specie of the host plant (e.g. rose, hibiscus, basil, etc.);
5. Complete the attached sample submission form and send the sample by overnight delivery it to:

Erfan Vafaie
Horticulture Extension Specialist
Texas AgriLife Extension Service
1710 FM 3053 North
Overton, Texas 75684

Schedule the delivery so that samples arrive Monday through Thursday.