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The southern red mite, another new pest!

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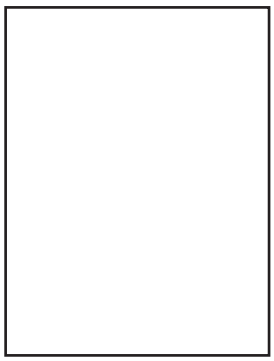
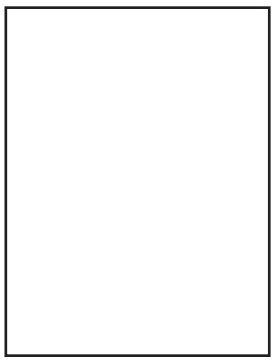
Earlier this year an exotic pest, southern red mite (SRM), was identified from two nursery sites in the Sydney area. It is believed that SRM may have been in the Sydney area for at least 12 months and has probably moved from the original nursery sites. The impact that this spider mite will have in Australia is yet to be determined.

Southern red mite, *Oligonychus ilicis* (McGregor): Tetranychidae





Left: *Adult female southern red mites.*
Right: *Southern red mite eggs on azalea leaf.*

Hosts and damage

SRM has been recorded from a wide range of plants (see Table 1). It favours mature leaves rather than new shoots and feeds on the upper and lower leaf surfaces. It especially prefers azaleas but is also common on camellias and hollies with large infestations leading to extensive bronzing. Normally the edges of leaves are affected first and heavily infested leaves may turn grey or brown and fall prematurely.

Life cycle

SRM is most active during spring and autumn with populations being lowest during summer and winter. When numbers are low, infestations can be detected by the presence of eggs scattered over leaf surfaces. SRM over-winters as eggs. These are spherical and red with a fine hair-like structure attached to the top, which can be seen only under high magnification. Remember that other species of mites also produce red eggs.

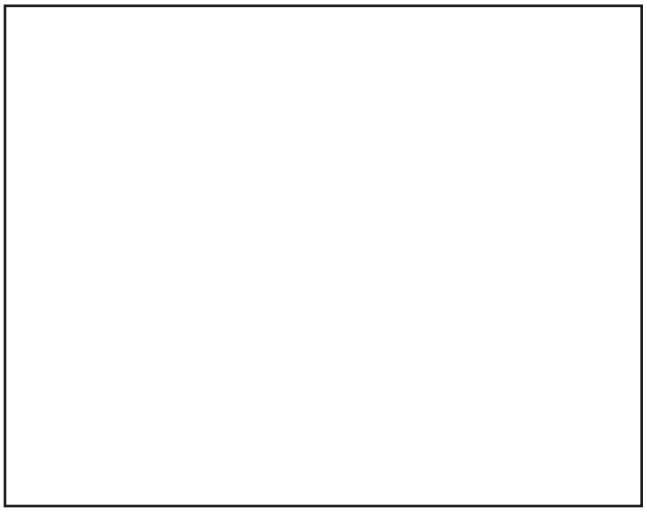
Description

Southern red mites (SRM) are deep purplish-red in colour, with a pale patch in the centre of the back and lighter coloured legs. The males are generally smaller and paler than females.

Chance of confusion

There are some common spider mites which can easily be mistaken for SRM. Several are also red and/or produce red coloured eggs.

- Two spotted mite (*Tetranychus urticae*) is greenish-yellow in colour with two dark spots on the body. Over-wintering adults are deep orange.
- Bean spider mite (*Tetranychus ludeni*), found on many plants, is scarlet red but its eggs are dull yellow.
- Tea red spider mite (*Oligonychus coffeae*), which occurs on camellias in Australia, is very similar to SRM in body colour and size. It also produces reddish eggs. These two species can only be distinguished by expert examination under a high-powered microscope.
- Slow-moving, false spider mites, *Brevipalpus spp.*, are also red although smaller and flatter than SRM. Eggs range from pinkish to bright red but are oval in shape.



Damage to azalea leaves by southern red mite

Distribution

Known SRM distribution around the world includes Brazil, Italy, Japan, Korea, Paraguay, The Netherlands and the USA (including Alabama, California, Louisiana, New Jersey, North Carolina, Ohio, South Carolina and Virginia). In Australia, SRM has only been recorded from north-western Sydney. Surveys in other states have drawn a blank. Further surveys will be conducted in the coming spring to determine how widespread this pest is.

Control

Overseas, SRM is controlled with insecticides, but it is known to have developed resistance. Chemical controls are available and some naturally occurring predators may also assist in keeping the mite in check.

There are several products registered by the National Registration Authority (NRA) for use on 'mite', 'spider mite' and 'red spider mite'. These products can be used to control SRM. Product registration is crop and state specific so you must check the label to ensure it can be used on the particular host you want to treat. In addition at the request of NIAA the NRA has issued an off-label use permit for tebufenpyrad (Pyranica®) against SRM.

Some registered products do not control this pest and pesticide efficacy is currently being investigated at the Elizabeth Macarthur Agricultural Institute by Dr Grant Herron, Special Entomologist. It is envisaged that the results of those studies will be available to industry before the coming spring. To find out more information about registered products, product efficacy and any products newly registered for use on SRM, contact your local Dept of Agriculture.

Table 1: *Known hosts*

Azalea	*Buxus* (boxwood)	*Camellia*
Cinnamomum (camphor laurel)		
Clethra (sweet pepperbush)		*Cleyera*
Coffea (coffee)		*Cotoneaster*
Cydonia (quince)		*Erica (heath)*
Eriobotrya (loquat)		*Eucalyptus*
Fragaria (strawberries)		*Ilex* (holly)
Ixora (prince of orange)		*Juglans* (walnut)
Laurus (grecian laurel, sweet bay)		
Leucothoe	*Oryza* (rice)	*Picea* (spruce)
Platanus (sycamore, plane tree)		
Pyrus (pear)	*Quercus* (oak)	*Rhexia*
Rhododendron		

Disclaimer

The information contained in this article is based on knowledge and understanding at the time of writing (July 1999). Because of advances in knowledge, users are reminded to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of NSW Agriculture or the user's independent adviser.

Acknowledgements

This article is a summary of important information about SRM which appears on the NSW Agriculture WWW sites;
http://www.agric.nsw.gov.au/Hort/Insect/dpi238.htm
http://www.agric.nsw.gov.au/Hort/Insect/dpi241.htm

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