3-1955

The Red spider - Tetranychus telarius (L)*

C.F. H. Jenkins

Follow this and additional works at: https://researchlibrary.agric.wa.gov.au/journal_agriculture3

Recommended Citation
Available at: https://researchlibrary.agric.wa.gov.au/journal_agriculture3/vol4/iss2/4

This article is brought to you for free and open access by Research Library. It has been accepted for inclusion in Journal of the Department of Agriculture, Western Australia, Series 3 by an authorized administrator of Research Library. For more information, please contact jennifer.heathcote@agric.wa.gov.au, sandra.papenfus@agric.wa.gov.au, paul.orange@dpird.wa.gov.au.
THE RED SPIDER

*Tetranychus telarius (L.)*

The red spider is a very common pest of vegetables, garden plants and some types of fruit trees during the summer. It should not be confused, however, with the red-legged earth mite (*Halotydaeus destructor*), which is such a serious pest of seedlings, but during the winter season only.

The red spider was first described from Europe as long ago as 1761, and since then it has been recorded from most countries of the world.

Like the red-legged earth mite, the red spider is really a mite, not a true insect, but for all practical purposes, it may be included in the insect pest category.

**GENERAL DESCRIPTION**

The adult female is barely visible to the naked eye, being only about 1/50th of an inch in length. The colour varies considerably, being often greenish brown or yellowish, but more generally rust or brick red. Darkish spots can usually be seen on the back with the aid of a strong magnifying lens. The male is smaller than the female and usually reddish in colour.

Being true mites, both sexes have eight legs, and not the customary six characteristic of insects.

**LIFE HISTORY AND HABITS**

The round, somewhat transparent eggs, which cannot be seen without the use of a hand lens, are laid on the under sides of the leaves of selected host plants. Each female may lay from 70 to 100 eggs during her average life of two or three weeks, and usually lays from three to six daily. The

* Sometimes referred to as *T. urticae*. 
eggs are laid irregularly on the leaf surfaces and under favourable conditions hatch in four or five days.

The young mites are almost transparent on first hatching, and have only six legs. They soon commence feeding and acquire a greenish tinge. Later they moult their first skin and become eight-legged like the adults. In warm weather the mites may reach maturity in a little over a week, so that from egg-laying to adult may occupy less than a fortnight. This rapid development explains how such swarms of red spiders can appear apparently from nowhere to plague our gardens during hot summer weather.

Although the normal life of the adult red spider, as already indicated, is only about a fortnight or three weeks, under cold conditions this period may be greatly lengthened. The females become inactive, shelter in secluded situations, and in this manner spend the winter. With the arrival of spring they again become active, and lay eggs which give rise to the first spring generation of the pest.

The mouth parts of the red spider are adapted for lacerating the plant tissue and sucking up the oozing sap. The feeding injury causes pale spots to appear on the infested foliage, and soon leaves acquire a mottled and unhealthy appearance. A heavy infestation of the pest may cause the foliage to bleach altogether and finally to shrivel.

The web-spinning habit so characteristic of the red spider increases the disfigurement of the infested leaves. The threads of the webbing are too fine to see with the naked eye, but the under side of a badly attacked leaf often has the appearance of having been dusted with fine powder. This impression is conveyed by the numerous cast skins and excreta of the feeding "spiders" sticking to the leaf.

Being quite devoid of wings or any other means of rapid progression, it may seem surprising that the red spider is so widespread. It has, of course, been carried from one country to another with introduced plants. Local dispersion would occur in the same way, but in addition it is known that the creature may be borne by the wind for considerable distance, and that it can also be swept from higher to lower ground by flood waters.

**HOST PLANTS**

A complete list of host plants would be too long to include, but some examples are peas, beans, cucumbers, marrows, cotton, tomatoes, tobacco, violets, carnations, geraniums, and strawberries, as well as many shrubs and deciduous fruit trees.
LYSAGHT SHEEP SELF FEEDER...

Sliding Hinged Roof for ease in filling.

50 BUSHELS CAPACITY.

Rigid construction with Heavy Gauge Sheets.

Adjustable Hooks vary opening for different grades of feed.

Swinging Trough prevents blockage.

Sloping Sides prevent build-up of feed in Troughs.

Head Barrier prevents strangling.

Sturdy Skid Base and Lugs for Towing.

Overall Trough length, 16ft. (8ft. each side).

PRICE: (Assembled or Prefabricated)

£42 (At Works)

Write for further information and agents' names to

LYSAGHT'S WORKS PTY. LTD., NEWCASTLE

or JOHNLYSAGHT (AUST.) PTY. LTD., IN ALL CAPITAL CITIES

Please mention the "Journal of Agriculture, W.A." when writing to advertisers
A Nuffield "M4" Kerosene-powered Universal Tractor on 13.50 x 24 rear tyres tank-sinking with a 7ft. hydraulically-operated front end blade. By utilising both internal and external hydraulic systems a Ripper mounted at rear can be used independently or in conjunction with the blade without driver leaving seat.

ALL PURPOSE POWER. In addition to the conventional sources of power, i.e., drawbar, belt-pulley and power take-off, the Nuffield Universal is equipped with the only hydraulic system with both internal and external hydraulic tapping points—by which means both front and rear mounted hydraulically operated implements can be used TOGETHER or independently without the driver leaving his seat (this applies to working the implements or transporting them). Front and rear mounted attachments that can be used include bulldozers, front-end loaders, hydraulic tipping trailers, scoops, rippers and hydraulically-operated trailed implements.

Distributors in Western Australia:

PARK LANE MOTORS PTY. LTD.
926-928 HAY STREET, PERTH
(Temporary Premises)
CONTROL

The effective control of the red spider entails prompt action and thorough treatments especially to the under-surface of the leaves as soon as the pest is detected.

Chemical Control.

Sulphur dusts and sprays have been extensively used for the control of the red spider but some of the newer miticides are now supplanting the old treatments. Where sulphur is used care should be taken not to use it during a heat wave as scalding to foliage may occur. When sulphur dust is applied it should be diluted with equal parts of some carrier such as slaked lime.

Lime sulphur spray should generally not be used at a greater strength than 1 part to 60 parts of water, and on delicate plants the dilution should be 1 to 100.

Colloidal sulphur and other forms of sulphur sprays should be used in accordance with the manufacturer's instructions.

Parathion and HETP ("Hexone") are two new materials (known as organic phosphates) which are particularly effective against most types of mites and are widely used for red spider control. They should be diluted in accordance with the manufacturer's recommendations and used with considerable care. Gloves should be worn when handling the concentrate and should any material splash on the bare skin it must be washed off immediately. Care should be taken not to inhale the spray mist during application to the plants.

"Hexone" has little lasting effect and so must be thoroughly applied. Parathion, on the other hand, has some residual action and should not be applied to fruits or vegetables later than a month before picking.

Special Miticides. P.C.P.B.S.¹ and "Ovotran"² types of miticides are quite recent developments. These materials are very selective in their action and, although harmless to most insects, they are very toxic to the eggs and immature stages of certain mites. They should be applied after the winter eggs of the red spider have hatched but before the summer population has had time to reach plague proportions. The general use of these new materials cannot yet be recommended under local conditions as some foliage injury may occur to susceptible plants under certain weather conditions. Some growers, however, may be interested to carry out their own tests.

Systemic Insecticides. Certain chemicals have recently been developed with systemic properties which means that when applied either to the roots or foliage of a plant the insecticide is absorbed into the sap stream and renders certain areas of the plant toxic to sucking pests.

1. Parachlorophenyl benzene sulphonate = "Vallo-mite," "Elimite," etc.
Biological Control.

The value of natural enemies in combating the red spider is well demonstrated by the fact that the “spiders” increase rapidly following the use of DDT. Natural enemies, especially small ladybirds, are easily killed by the DDT but the red spider and various other mites can withstand strong DDT applications. Where there is danger of red spider attack, therefore, DDT should be used as sparingly as possible.

Cultural Methods.

It has been frequently shown that the red spider thrives best under hot, dry conditions. Where plants can be kept well watered, especially with overhead sprinklers, the result is a definite drop in the “spider” population, and this means of control is adopted by many gardeners.

As the red spider attacks a variety of weeds as well as cultivated plants, the necessity for clean cultivation will be self evident.