The Water Hyacinth Mite

(Orthogalumna terebrantis)

A natural enemy of **WATER HYACINTH** *(Eichhornia crassipes)* in South Africa

19 DOSSIERS ON BIOLOGICAL CONTROL AGENTS AVAILABLE TO AID ALIEN PLANT CONTROL

Description

The adult mites are shiny, dark brown/black, less than 1mm and tear drop shaped. The mites are barely visible with the naked eye as they are so small but they appear as small black dots on the leaves. The adults often aggregate in the feeding scars of the two weevil species also released as biological control agents for water hyacinth.

Life Cycle

The eggs are yellow and shiny (approximately 0.1mm in size). Damaged areas on the leaves provide ideal oviposition sites for the female mites. They have two immature stages, one larval and 3 nymphal stages. In both these stages the mite is less than 0.5mm in size. The duration of the immature stages is 15 days in total at 25 ºC. The life expectancy of the adult is about 85 days. These mites can survive in temperatures ranging from cold (0ºC) to warm (40ºC).

Feeding Damage

The mite larvae and nymphs produce characteristic feeding galleries or tunnels extending towards the tip of the leaf, between the leaf veins. The galleries reach a length of 5-10mm. The damage is most visible in the late summer (February). There are about 3 generations per year and the population can increase rapidly due to the production of a high number of offspring. Pin holes in the leaves indicate adult emergence from the galleries/tunnels. The holes can be seen by holding the leaf up against the light.

Impact

Feeding galleries/tunnels are most obvious on the older leaves on the plant although the eggs are laid on the younger leaves. The larval and nymphal tunnels (affecting up to 90% of the surface area of the leaves) reduce the photosynthetic capability of the leaves and thus reduce the vigour of the plant. Under the correct environmental conditions, this agent, in combination with the other biological control agents that have been released on water hyacinth can bring the weed under completed control. Under these conditions no other control methods should be required.

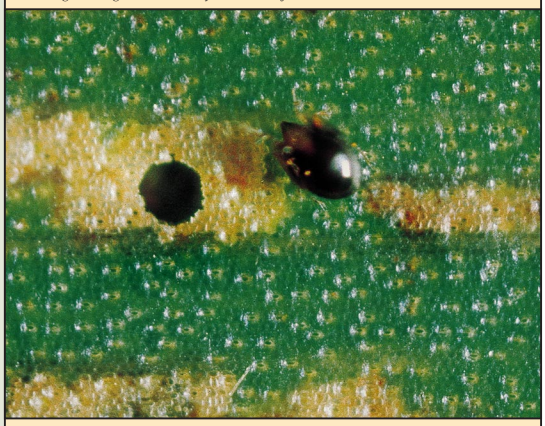
ARC • LNR

THE WORKING FOR WATER PROGRAMME

Patron in Chief: Nelson Mandela

Adult water hyacinth mite

Feeding damage on water hyacinth leaf



Adult mite on leaf surface, close to an emergence hole

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Additional information is available. Phone: Weedbuster Toll-free Helpline: 0800 005 376
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NOVEMBER 2001

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