

THE SESBANIA STEM-BORING WEEVIL

(*Neodiplogrammus quadrivittatus*)

A natural enemy of

SESBANIA (*Sesbania punicea*)

in South Africa

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DESCRIPTION

Adults of the sesbania stem-borer are colourful beetles (up to 13 mm long). They are predominantly black, but have a bright red first thoracic segment and cream-coloured stripes along each elytron (hardened fore wing), on the lower surface of the abdomen and along each leg. Adults can be found on sesbania plants throughout the year but are most abundant between April and June. The presence of these beetles is often apparent from piles of 'saw-dust' at the base of the plants and from prominent round adult-emergence holes in the stems of sesbania plants.

LIFE CYCLE

Adult females deposit single eggs under the bark of stems and branches of sesbania trees. Grubs feed in the woody parts of the plants just below the bark. After several months grubs reach maturity and pupate in rough cocoons which they construct from chips of chewed wood. Adults emerge almost a year after the eggs were laid.

FEEDING DAMAGE

Tunnelling activity of feeding grubs destroys vascular tissues and inhibits movement of water and nutrients around the plants. In the process, plants are frequently 'ring-barked' (i.e. vascular contacts between roots and stems are cut) thereby killing the affected stems. Each larva causes extensive damage and two to three larvae can kill even the largest sesbania trees.

IMPACT ON SESBANIA

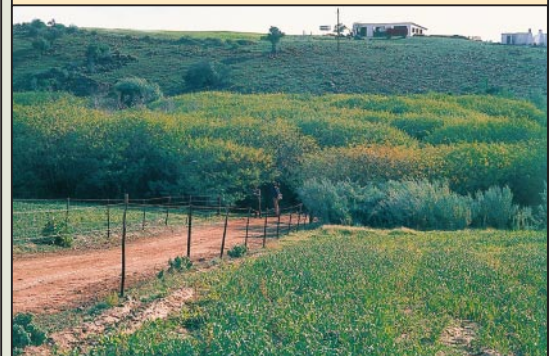
The stem-boring weevil has killed many sesbania trees in areas where the beetles have been established for more than 4-5 years. In conjunction with the flower-feeding weevil (*Trichapion lativentre*) and the seed-feeding weevil (*Rhyssomatus marginatus*), the stem borer has brought sesbania under excellent biological control in South Africa and the weed is no longer problematic in areas where all three beetles are present on the plants. Where these three biological control agents are present together no other control methods should be required.



Neodiplogrammus adult



Sesbania stump with bark removed to show damage caused by sesbania stem borer



Sesbania infestation BEFORE biological control



Sesbania infestation AFTER biological control



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ADDITIONAL INFORMATION IS AVAILABLE. PHONE: Weedbuster Toll-free Helpline: 0800 005 376
WEBSITE: PPRI website is located via links from the Agricultural Research Council website: www.arc.agric.za

