



The seed-feeding weevil, *Cissoanthonomus tuberculipennis* Hustache (Coleoptera: Curculionidae), was approved for release against balloon vine in August 2013. During the first year thereafter, over 550 adults of the seed weevil were released at 11 sites throughout KZN, Limpopo, Gauteng and Mpumalanga provinces. Within 12 months of its release, the weevil had become established at nine of these sites, and had dispersed unaided at least 13 km from the initial release site in KZN South Coast.



DESCRIPTION

The adult seed weevil (i & ii) is light brown to grey in colour, ranging from 3 to 5 mm in length. The body is covered by light brown setae, and becomes darker from front to back. The head is deeply constricted behind the eyes; the femurs of the front legs are greatly enlarged, and strong protuberances occur on the front wings. The larva is legless and whitish in colour (iii). Greenish-blue pupae are found attached to the inner wall of the ripening fruit.



LIFE CYCLE

Females insert their eggs into the young green fruits when the fruits are ± 1 cm long, and the emerging larvae feed on the seeds inside the developing fruit (iii & iv). Pupation occurs inside the fruit capsule. Development from oviposition to adult emergence is completed in 40-45 days. Adult seed weevils are long-lived, surviving for two to five months.



FEEDING DAMAGE

Adult weevils feed on the flower buds (ii) and open flowers, and occasionally on the leaves and shoot tips. The larvae are highly damaging, with one or two larvae capable of destroying all the seeds within a single fruit capsule. The larvae consume the cotyledons and the embryo, leaving only a small piece of the seed coat intact (iv).



IMPACT ON BALLOON VINE

Within 12 months of its release, the seed weevil had destroyed up to 40% of seeds at some sites in KZN. The lack of seed-feeding competitors on balloon vine in South Africa is likely to increase the reproductive output of the seed weevil, thereby accelerating seed destruction and curbing the spread of the weed. Preliminary studies show that the seed weevil is likely to establish widely within the distribution range of balloon vine in South Africa.

