GOOSEFOOT VINE (Syngonium podophyllum), also known as arrowhead vine, is a fast-growing vine native to tropical forests in North and South America, and in Mexico. Its attractive foliage makes it an ideal houseplant, but it has also been planted in gardens in the warmer regions of South Africa where it has escaped cultivation and become invasive. When grown indoors, the leaves are usually variegated green with white, but become greener and larger, up to 30 cm, when grown outdoors. The leaves of juvenile plants are entire, but later develop a heart shape at the base (i) then, when mature, they become segmented into 3 leaflets, with the longest one in the centre (ii). Juvenile plants do not climb, but once they mature, they develop adventitious roots that enable them to climb as high as 10 metres. Spathe-like flowers (iii) are produced from summer to late autumn, and these are followed by plump fruit, which may be red, orange or yellow (iv).

Goosefoot is a declared invader in South Africa and must be controlled, or eradicated where possible in Eastern Cape, KwaZulu-Natal, Limpopo and Mpumalanga provinces.

THE PROBLEM

The vine prefers moist, shaded areas, and where conditions are right, it is able to grow in a variety of habitats ranging from forests to roadsides. In fact, under ideal conditions, the vine will take root wherever it touches the soil, and has even been observed growing in the forks of trees. Once rooted, its creeping habit enables it to grow as a groundcover before climbing into surrounding trees, where it eventually smothers the canopy and shades the plants below. In this way, goosefoot may outcompete indigenous vegetation and eventually alter the ecology and biodiversity of an area. The vine reproduces vegetatively and from seed. Cuttings, and even plant fragments spread by machinery, water, and garden waste, are capable of taking root. Furthermore, the fruits are readily eaten by birds and other animals that further aid in the plant’s dispersal.

THE SOLUTION

To date, no herbicide has been registered for use on goosefoot. Glyphosate, triclopyr and other herbicides have been used, but all require regular follow-up treatments to ensure eradication. Small infestations can be removed mechanically, but care should be taken when handling since the milky sap is poisonous and may cause skin irritations, or even poisoning if swallowed. Once removed, plants must be destroyed by placing them in black bags and allowing them to rot in the sun to prevent stems and roots from resprouting. As with most invasive plant species, the only sustainable and cost-effective solution is biological control. However, no potential agents have been identified for use as a biocontrol on goosefoot vine. In the meantime, gardeners and landowners are urged to eradicate these plants to protect the ecology and to prevent further spread.