

Exotic weed finds its way to Australia

Red witchweed:
Striga asiatica



Phil Ross

Development Officer – Weed and Pest Management

Professional Extension and Communication Unit



- > If you suspect that you have red witchweed on your property, you **must report it immediately to Biosecurity Queensland on 13 25 23.**
- > Mark or clearly note the location of the weed and, where possible, take photos that may be used to help with identification.
- > Do not attempt to remove any flowering plants as this may allow the weed to spread tiny, dust-like seeds.

- > If red witchweed is suspected, soil, machinery or products that might contain soil should not be moved off site until a Biosecurity Queensland officer is consulted.

Left: *Striga asiatica* on a Mackay farm. It looks different to other weeds you'd expect to find in sugarcane. (Photo by M Mackenzie).

Above: *Striga asiatica* from Reunion Island (near Africa) where it is common in sugarcane. (Photo by E Fillols).

Be alert but not alarmed

Growers will be aware that the Class 1 Declared weed *Striga asiatica* (red witchweed) is present on a few farms in the Mackay area.

Biosecurity Queensland is continuing to survey properties to define the weed's distribution. To date the weed has been confirmed on four farms.

The potential impact of red witchweed

Experience from overseas suggests that *Striga* is of **minor importance in sugarcane**. It is, however, of **major importance in other crops** such as sorghum, rice and wheat, in which it can reduce yields severely.

SRA researcher, Emilie Fillols, spoke with weed research colleagues in CIRAD (Centre de coopération internationale en recherche agronomique pour le développement), a French agricultural research centre, about their experience with the weed.

Their research indicates the following:

- > *Striga asiatica* has been recorded for decades in sugarcane overseas. It has been considered a minor weed as it generally does not affect the yield of sugarcane.
- > It is a parasitic weed that takes nutrients and water from its host.
- > The seeds of *Striga* germinate only after stimulation by chemicals from the host's roots.
- > Sugarcane, as well as sorghum, rice, wheat and corn, exude these stimulants from their roots and are hosts.
- > Some other plants, such as soybean, peanut, lablab, cowpea, desmodium, stylo, couch grass and Brachiaria, also stimulate the seeds of *Striga* to germinate but do not allow the weed to parasitise them, which kills the newly germinated seeds. This is used as a method of control overseas.
- > To germinate successfully, *Striga* seeds need:
 1. Soil moisture to hydrate the seed.
 2. An optimum soil temperature of 30°C (germination is possible between 25 and 35°C).
 3. To be within 10 mm of the host plant root tips to receive the chemical germination stimulation.
- > Seed may be dormant for 10 to 20 years.
- > Seed can be spread by wind, run-off, farm machinery and exportation of mulch.
- > *Striga* plants emerge about 6–7 weeks after the germination. Flowering occurs 5–6 weeks after emergence, with mature seeds disseminated 2–3 weeks after flowering (Madagascar conditions). One plant produces 10,000 to 100,000 microscopic seeds (black dust) contained in small capsules (5–6 mm long).
- > *Striga* thrives in poor soils with low organic matter and nitrogen, and in areas with low and irregular rainfall.