### **BRIDAL CREEPER**

(Asparagus asparagoides)

# **BIO-CONTROL AGENT**

**BRIDAL CREEPER RUST FUNGUS** 

### **Even you can make SPORE WATER**

Complicated equipment is not needed to spread rust fungus (Puccinia myrsiphylli) spore water on Bridal Creeper (Asparagus asparagoides).

Some simple everyday articles from around the house/yard/shed can be utilised.

The only prerequisite is that the equipment has not been used for other chemicals, especially fungicides as the Bridal Creeper rust is a fungus and will be destroyed.

#### To make spore water

- Collect mature Bridal Creeper with rust fungus (as shown in photo) into plastic bags.
- Use a clean container to wash the Bridal Creeper with rain water or clean bore water (not town supply) to remove the spore. Gentle agitation by hand is sufficient for the spore to be removed from the plant.
- The water turns the colour of weak tea, this brown stain is 8 the rust fungus spore.
- 4 Strain into a clean container using a coarse sieve to remove leaves etc.
- If a spray unit is used it must have the sieves removed 6 and have large aperture nozzles. A watering can is ideal. Fine holes become clogged with the spore.
- 6 Agitate the spore water occasionally as the spore tends to settle. Also ensure you wet the Bridal Creeper thoroughly.
- Most importantly choose a damp day to spread the spore water, preferably in the late afternoon.





Coorong Tatiara Local Action Plan

Washing rust infected Bridal Creeper



Simple equipment used to make spore water



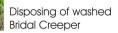
Spore water













### **BRIDAL CREEPER**

(Asparagus asparagoides)

## BIO-CONTROL AGENT

**BRIDAL CREEPER RUST FUNGUS** 

### A short introduction to the rust and its biology

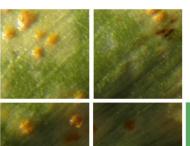
This fungus is native to South Africa, where Bridal Creeper also comes from. It was chosen as a potential biocontrol agent because it causes severe damage to the plant in South Africa. Louise Morin, of the Weeds CRC/CSIRO Entomology, extensively experimented with the rust in auarantine in Canberra to determine its host range. Many species were inoculated with rust spores, with major emphasis being placed on plants that are closely related to Bridal Creeper. Infection only occurred on the target weed. After extensive consultation with over 20 state and federal agricultural and conservative bodies, who all agreed that the rust was safe to release, the Australian Quarantine and Inspection Service (AQIS) and Environment Australia (EA) issued a release permit in mid 2000.

This rust (see photos below) has a 'complicated' life cycle. In simple terms it produces a hard-coated spore (teliospore) that allows it to oversummer while its host is also oversummering. At the onset of rain in autumn, these spores germinate on last years leaves and stems, and immediately produce another type of spore (basidiospore) that are dispersed by wind. When they land on moist green Bridal Creeper leaves they germinate and infect the plant, forming small spherical structures. The sexual part of the life cycle occurs inside these spheres, and result in the formation of yet another spore type (aecia), that in turn produce aeciospores.

The aeciospore germinates and produces yellow urediniospores. This spore type is responsible for epidemics of the disease through the growing season. It is wind dispersed. Continued cycles of new infections will occur as long as conditions for germination of the urediniospores is present. When the rust senses that the leaf is about to senesce, it begins production of the oversummering spore, which is black, and readily distinguished from the yellow urediniospore.



**Bridal Creeper** rust fungus





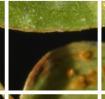


Coorong Tatiara Local Action Plan









**Bridal Creeper** being defoliated



