BLACKBERRY RUST ARRIVES IN DENMARK

Dorothy Redreau

A blackberry rust field day was held in Denmark during September last year, run by Paul Yeoh of CSIRO and the local DAFWA biosecurity officer, Peter Hennig. Participants heard about the development of the rust and then applied it to blackberry infesting a creek on the edge of the Denmark Agricultural college site.

Designated a Weed of National Significance, blackberry is also a 'declared plant' which is found throughout the wetter south-west. Blackberry threatens both agriculture and natural ecosystems. Past treatments have included some fairly aggressive chemicals, but this new treatment uses an air-borne fungus that is not known to affect any other plants, including commercial berries such as raspberry, loganberry or dewberry.

Other rust treatments have been tried in the past and this latest release builds on the knowledge gained. There are nine individual strains of the rust in each treatment kit. Every plant was treated with one strain and was tagged with the ID number of the strain used. The inoculant was mixed with water and sprayed on the underside of the plants, the treated area was then covered with a plastic bag to ensure that the sprayed area remained moist. Eight kits were given away to participants on the day and another 23 were mailed out to people in the Denmark/Albany region. Those with kits will be monitoring results and collecting plant specimens to add to the knowledge about the plant and the effect of the rust in different areas.

Spring is the ideal time to treat plants as the rust can only infect new leaves that are less than a few weeks old and it is most effective in cool, moist conditions. The rust does not completely kill plants, although in some areas it appears to. It is very effective at preventing the plant from leapfrogging along because the tips of heavily infected canes die instead of taking root as they normally would when establishing the typical thickets of plants.

The rust may prove particularly useful in inaccessible areas such as creek lines and dense vegetation. It may also be valuable for use on organic properties and where there is a desire to be chemical-free. It is, however, not a certainty that the rust will do well in all areas and if people have small populations of blackberry plants they should kill them before they spread, using methods that are known to work such as herbicides or physical removal.

The rust strains used were selected for the effect that they potentially will have on the blackberry species that is most common between Denmark and Collie under our Western Australian climatic conditions. Strains are put out individually so as to favour the survival of the best strain for each location. Any surviving strains can, however, mix together in the field so that in subsequent years natural selection can result in new site-specific and adapted rust strains. Areas that have been treated will make ideal harvesting grounds for infected leaves to inoculate new areas with these locally adapted strains.

Participants also heard about a promising new disease, red berry disease (eriophyoid mite) which prevents the fruit from ripening. This means that animals don't eat and spread the seeds, reducing the rate of invasion and spread.

Two Denmark *LFW* properties have been inoculated with the rust, one with a creek with very dense vegetation and one with a damp road reserve which is fairly bare. We will watch with interest to see the effect. The lifting of the burden of vigilance and treatment for any weed is welcome, even more so when it is difficult, prickly and highly invasive.

Although funding for this project has run out, people wanting more information about it can contact Paul Yeoh at Paul.Yeoh@csiro.au or on the phone 9333 6645.

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Note: This form of rust is only effective in the southern part of the south-west, since it attacks the European blackberry, not the American species found around Perth. Hence the creation of a 100 km long blackberry-free buffer zone reported in WW 12/3, July 2008. Biosecurity Officers from DAFWA will be auditing private properties within the buffer zone during late summer and autumn to ensure that follow up treatments and control will continue to be applied to any blackberry within the target area.