



Photos: K. Turner

Guidelines to redistribute the Crofton weed rust fungus to new sites ¹

The Crofton weed rust fungus produces small spores that are windborne and naturally spread from sites where it is well established. We have seen natural wind dissemination of up to 15 km one year after a release.

To enhance natural spread, community members may consider redistributing the fungus to sites where it is absent using one of the three methods outlined in these guidelines: 1) potted plants method, 2) layering method and 3) transplanting method. A step-by-step pictorial guide is included for each method.

The preferred methods are potted plants or layering using potting mix as these options do not involve the movement of soil from one site to another and thus reduce the risk of spread of soil pathogens and weed seeds.

Simply transferring rust-infected leaves to a new site is highly unlikely to lead to establishment of the fungus. The fungus shuts down very quickly once infected material is removed from a plant and thus does not produce the necessary spores for new infections to occur.

Establishment of the fungus in the field depends on the environmental conditions present at the time the redistribution activities are performed. The hot summer months should be avoided.

¹ **Disclaimer:** It is your responsibility to meet the terms of any weed control compliance order imposed by the relevant authority on the site selected for a biological control release. If applicable please check with the relevant authority to ensure that you have permission to quarantine the Crofton weed rust fungus release area from other control programs. A biological control release cannot be used as an excuse not to control Crofton weed or other weeds on the rest of the property. There is no guarantee that the rust fungus will establish and have an impact at your release site, as epidemics are regulated by prevailing environmental conditions. Participants must be aware that biological control is not a 'silver bullet' but rather a long-term strategy with potential to complement existing control techniques.

Potted plants method



3-4 wks
later



Propagate Crofton weed plants: Cut new stems in the woody part and place in pots containing potting mix (not soil from the field). Place pots in partial shade in garden and water regularly.

Plant has produced several new healthy shoots.



Take 3-4 potted healthy plants to a site where abundant rust infections are present.



Place potted plants in a saucer underneath Crofton weed with rust infections and add water to saucer.

You may need to water the pot at regular intervals if there is no rain.

Potted plants method (continued)



Mark the area with a stake.



Rust infections have developed on leaves of potted plants.



Place infected, potted plants in a saucer within a Crofton weed infestation at new site and add water to saucer.



Mark the area with a stake.
You may need to water the pot at regular intervals if there is no rain.

Layering method



Prepare your pot: Cut a small hole on opposite sides of pot, slide in holes a piece of hard wire and fill $\frac{3}{4}$ of pot with potting mix (not soil from the field).



Select two to three long stems of Crofton weed plants with rust infections on leaves in the **shade**. **Do not cut the stems.**



Gently bend the stems and use hard wire in the pot to hold them down on the potting mix surface. **Do not cut the stems.** Add more potting mix to the edge of the pot to cover the stems.

Layering method (continued)



Place a deep saucer under the pot, water and mark the area with a stake. **You may need to water the pot at regular intervals if there is no rain.**



3-4 weeks later...



When rust infections have developed on leaves of layered stems, cut stems that linked the pot to the plants growing at the site. *By that stage the stems buried in the potting mix in the pot will have developed roots and the potted infected plants will be able to survive on their own.*

Place pot with infected plants in a saucer within a Crofton weed infestation at new site and water. Mark the area with a stake. **You may need to water the pot at regular intervals if there is no rain.**

New site



Transplanting method

This is the least preferred option because the root/soil mass of the crofton weed plants that you will transplant to a new site may carry soil pathogens and/or weed seeds that are not present at that site.



Locate a small patch of young plants with rust infections.



Cut roots around patch with a shovel and gently remove root/soil mass and plants.



Use a piece of cloth to transfer root/soil mass and plants to a bucket and carry to new site.

Transplanting method (continued)



Dig a hole within a Crofton weed infestation in the **shade** at new site. Gently place root/soil mass of infected plants in hole, cover with soil and water. Mark the area with a stake.

You may need to water the pot at regular intervals if there is no rain.