

New Zealand Flatworm

Arthurdendyus triangulatus

1 Tips to help prevent their introduction and establishment in your garden

i Inspect incoming consignments of plants

Check all new plants you bring into the garden, especially those obtained privately, to ensure that no flatworms or egg capsules are present.

Removal of excess soil from the plants or heat treatment (see below) should prevent accidental introduction. Any soil which has been removed should be disposed of in a manner to prevent possible contamination (e.g. in sealed bags).

ii Maintain good hygiene

Always use fresh, sterile compost or other sterile growing medium when potting up plants, not material taken from places where flatworms might be hiding. For example, a container of compost or growing medium which has been opened and left lying on the ground may prove an attractive hiding place for flatworms.

iii Avoid creating piles of plant cuttings, leaves and soil and check regularly under matting or pots in direct contact with ground

These are ideal refuges for flatworms. Compost heaps are not a problem as long as they are active i.e. warm, or they are bounded in such a way as to prevent the inward and outward movement of flatworms (i.e. keep out of direct contact with the soil surface). Flatworms will seek damp places, such as under loose turf, plastic or other sheeting, rocks, flat stones, plant containers etc. for shelter during the day. Egg capsules can also be found in such places.

Reducing the availability of stones, bricks or logs used as borders or paths which provide an ideal habitat will lessen the likelihood of the flatworms becoming established.

Lift plants from their pots frequently to check for presence of flatworms or egg capsules.

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2. What you can do if flatworms are already present in your garden:

i Do not move plants or soil unnecessarily. Infested or suspect potted plants can be treated by:

- a) Removal of the soil from the root ball and re-potting in sterile pots and growing media.
- b) Immersing the pot and root ball in warm ($>30^{\circ}\text{C}$) water for 40 minutes.
- c) Placing the plants in a warm environment e.g. 30°C for 12 hours.

N.B. methods a) and b) will result in the death of NZ flatworms. However, if egg capsules are present or suspected it will be necessary to repeat these procedures after 14 days, so that any hatchlings are destroyed.

ii There are no approved chemical control methods for flatworms

However, individuals can be disposed of by dropping into hot water ($<40^{\circ}\text{C}$), or by sprinkling with salt.

Warning - NZ flatworms are covered with sticky mucus which can cause skin irritation. Therefore it is recommended not to touch them, but if necessary, handle them with rubber gloves.

iii Set Traps

Set traps consisting of a weighed down sheet of black plastic or plank of wood and check the underside frequently for the presence of flatworms or egg capsules and eliminate all flatworms and eggs found as previously outlined.

This strategy relies on a regular and sustained campaign of searching for and disposing of flatworms otherwise you have just created the ideal refuge for them under the polythene!