Code of Practice to Prevent the Spread of Non-Indigenous Flatworms

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About this Code

This Code is a practical guide to help producers and traders of nursery stock to detect and thereby to limit the spread of non-indigenous flatworms, notably the 'New Zealand' flatworm, *Arthurdendyus triangulatus*, and the 'Australian' flatworm, *Australoplana sanguinea*.

Although this Code of Practice has no legal force, demonstration of adherence to its provisions could be taken into account in the event of a case arising.

Under the Wildlife and Countryside Act 1981, it is an offence to release or allow to escape into the wild any animal which is included in Part I of Schedule 9 of the Act. This includes the New Zealand flatworm.

The Need for a Code

- Non-indigenous flatworms prey on earthworms and so pose a potential threat to our native earthworm populations.
- Further spread of non-indigenous flatworms could have an impact on wildlife species dependent on earthworms and could have a deleterious effect locally on soil structure.
- Findings in some parts of the United Kingdom indicate that non-indigenous flatworms are becoming more widespread.
- The principal means of spread is considered to be through movement of plant material and soil. By following hygienic practices and undertaking careful inspections of their stock of plants, nursery stock producers, garden centres and traders can help to limit the spread of flatworms.

In addition, because the New Zealand flatworm is known to occur in parts of the United Kingdom, certain countries which import UK planting material have expressed concern that they might import the flatworm.

By showing adherence to a Code which lays down monitoring and inspection practices, UK producers will be able to demonstrate that they are taking measures to avoid spreading the flatworm through trade in planting material both within and outside the UK. **Failure to prevent the spread of flatworms could threaten UK exports.**

Scope

This Code applies to plant producers, nurseries, wholesalers, garden centres and other retailers of plants and is directed at all stages of plant production and marketing.

Identification
The New Zealand flatworm

The New Zealand flatworm was probably first introduced to the United Kingdom some 40-50 years ago, and in certain areas – particularly cool and wet regions – it has become locally abundant and widespread, particularly in domestic gardens. It has gradually spread, most notably in Northern Ireland, Scotland and northern England. In England, findings have been mainly in domestic gardens and allotments, predominantly in northern counties, such as Tyne & Wear, Durham, Cumbria, the Wirral, Cheshire, Greater Manchester and West Yorkshire. There have been relatively few sightings in central or southern England and similarly, there is only a small number of records from Wales.

The Australian flatworm

The Australian flatworm appears to be a more recent introduction than the NZF, but is now quite widespread, particularly in SW and NW England. It was first recorded in the Isles of Scilly in 1980 and has since spread along the southern coast of Cornwall, Devon and Dorset, and into Hampshire. There is also a concentration of findings in north Wales and NW England (Clwyd, Merseyside, Cheshire and Greater Manchester). However, there have been very few findings from the east of the country and none from along the whole eastern coastline of England.

Flatworm egg capsules

Flatworm egg capsules appear in the summer and resemble shiny smooth slightly flattened blackcurrants. They are between 4-11 mm long and 3-8 mm wide. Juvenile flatworms emerge after about a month and are creamy white/pink in colour.

Other creatures such as leeches or slow-worms have in the past been mistaken for flatworms, but careful examination should help avoid mistakes. There are also several native flatworms which are mostly small and inconspicuous (about 2cm). These pose no threat to the earthworm population and should be left alone.

Kontikia – a small black flatworm

Another non-native species, Kontikia ventrolineata, has been found at about six sites – allotments and domestic gardens – in Devon and Cornwall, and there are also records from Liverpool and Guernsey. Thought to be of Australasian origin, a recent record from Scotland indicates that it may be increasing in numbers and could be more widespread than current findings indicate. K. ventrolineata is reputedly able to feed on any small invertebrates that it can catch, including molluscs, and possibly slugs.

It is much smaller than the Australian and New Zealand flatworms, measuring 1-2 cm in length. Oval or cylindrical in cross-section, it is very dark, almost black in colour, with two narrow lines (pale grey) running down the length of the body close to the midline. There are two native land flatworms (Microplana terrestris and Rhynchodemus sylvaticus) that are similar in size and colouration to Kontikia. However, both of these lack the longitudinal dorsal stripe.
Recommended Measures  Discovering a Suspected Flatworm  Contacts for suspected Flatworm finds

> Free pdf reader if required

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Recommended Measures

The following measures are recommended to reduce the risk of the flatworm being introduced into or spread from your premises:

- **Inspect incoming consignments of plants**
  Inspect pots or trays carefully particularly if they come from an area where findings of the flatworm have been reported.

- **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.

  Clear up spilt compost or other growing medium, disposing of or thoroughly cleaning used pots and other containers.

- **Check regularly under matting or pots standing directly on the ground for flatworms or their egg capsules**
  Flatworms are found on the soil surface. They will seek damp places, such as under loose turves, plastic or other sheeting, rocks, flat stones, plant containers etc. for shelter during the day. Egg capsules can also be found in such areas.

  Where containers stand on black polythene or capillary matting, frequently check, where possible, the underside of the polythene or matting for the flatworm.

  Whenever pots are standing directly on the ground, check whether flatworms have hidden under the pot and are either still on the ground surface or have adhered to the underside of the pot.

- **Lift plants from their pots frequently to check for the presence of flatworms or their egg capsules**
  Flatworms and their egg capsules can also be found inside plant containers between the root ball and the edge of the container.

- **Set traps**
  One of the locations where flatworms are most frequently found is in private gardens. Where nursery or other premises are adjacent to private gardens, set 'traps' close to the boundary, consisting of a weighted down sheet of black plastic or plank of wood. check the underside of these traps frequently for the presence of flatworms or their egg capsules.

- **Inspect all outgoing consignments of plants carefully whether or not they are for export**
  Check planting material leaving the nursery or other premises carefully for the presence of flatworms whether or not it is for export.

**Action on Discovering a Suspected Flatworm**

If you suspect that you have found a New Zealand or Australian flatworm, or their egg capsule, **do not touch it** as the mucus covering the flatworm can cause skin irritation. Please contact the relevant organisation **below** with details of the time, place and nature of the discovery.

The species will be identified and confirmed cases notified to the appropriate division within Defra or
devolved administration Agriculture Department. This may lead to further investigations by the Departments or their agents.

Contacts for suspected Flatworm finds

In England & Wales:

Findings of Flatworms

From 1 April 2007 Defra Plant Health will no longer be funding ADAS to provide diagnosis of alien flatworms. For a limited period ADAS will be asked just to send publicity material about the identification and control of flatworms to anyone who submits a sample for identification.

For the present Plant Health will maintain information on its website about the identification and control of flatworms. This is available here. The Central Science Laboratory also has useful information on its website. Use this link.

In Scotland:

Agricultural and Horticultural Businesses only

Please send details of your find (not the suspected flatworms themselves) to:

Dr J Pickup
SASA
1 Roddinglaw Road
Edinburgh EH12 9FJ
Tel: 0131 244 8859
Fax: 0131 244 8940
jon.pickup@sasa.gsi.gov.uk

For findings on private premises

Please send details of your find or, if you wish to have your find identified, please send it live in a crush proof container with some moist paper or damp moss, to:

Dr B Boag
SCRI
Invergowrie
Dundee
DD2 5DA
Tel: 01382 562731
Fax: 01382 562426
Brian.Boag@scri.ac.uk

In Northern Ireland:

Please send details of your find (not the suspected flatworms themselves) to:

Mr J P Moore
Agri-Food and Biosciences Institute (ABFI)
Newforge Lane
Belfast
BT9 5PX
Tel: 02890 255288
Fax: 02890 255003
Paul.J.Moore@afbini.gov.uk