

Fife Council**Leisure & Cultural Services – Parks, Streets & Open Spaces****Noxious Weeds - Policy & Procedures****Guidance on the methods of control for harmful weeds**

Noxious Weed Control and its Management in Parks & Countryside

There are a number of legislative and regulative principles that impose a “Duty of Care” on Fife Council to have an active involvement in the control of harmful weeds within Fife.

They are:-

- The Scottish Executive and The European Union have set targets to reduce the spread of harmful weeds on agricultural, amenity, urban land and prevent the spread of such weeds, where they may become a risk to the inhabitants or have an environmental impact.
 - Fife Council is committed to providing a quality service to the inhabitants of Fife, meeting its customer’s expectations.
 - Fife’s Big 8 – Fife Council has a target to maintain the position of Scotland’s leading green council.
-

Guidance note on the methods that can be used to control harmful weeds**Introduction**

This note provides guidance on the methods which can be used to control the six injurious (harmful) weeds specified in the Weeds Act 1959, for details of other weed concerns please contact Roy Daniels, Health & Safety and Training Officer, Parks, Streets or your Line Manager.

The six weeds covered by the Weeds Act are:

- Common ragwort (*Senecio jacobaea*)
- Spear thistle (*Cirsium vulgare*)
- Creeping or field thistle (*Cirsium arvense*)
- Curled dock (*Rumex crispus*) and Broad leaved dock (*Rumex obtusifolius*)
- Giant Hogweed (*Heracleum mantegazzianum*)
- Japanese Knotweed (*Polygonum cuspidatum*)

Summary

This information sheet considers the method of weed control used on Council owned footpaths and amenity areas and also examines the implications, and options for the control of pernicious and invasive weed species

1.0 Background

The requirements of the legislation commenced in April 1998, for the control of weeds on Fife Council owned land that is included within the scope of the service.

Previous reports have been presented to provide an overview that examined the need to identify, treat and control the weeds in some locations, these sheets also consider and examine alternative methods of controls available

The most appropriate and current method, is by using Glyphosate based herbicide, which continues to be the most effective product in terms of resource and environmental impact.

The issue of pernicious and invasive weed species and the established procedures for dealing with weeds such as Ragwort, and in particular the problems associated with the control of Japanese Knotweed have also been considered.

This report provides an update on the current initiatives for weed control in light of the Ragwort Control Act, which came into force on the 20th February 2004 and the associated Draft Code for Control produced by DEFRA.

2.0 Legislation and Reportable Issues

Fife Council is committed to providing a quality services to the inhabitants of Fife, meeting its customer's expectations and in line with the Big 8 – Fife Council strives to be the leading green council in Scotland.

Coupled with the fact that certain residual products had been withdrawn from use the previous year, the Council made an undertaking to use only non-residual herbicide products that were, and are, more environmentally friendly, namely Glyphosate.

The Weeds Act 1959 enables the Department of Environment, Food and Rural Affairs (DEFRA) to serve notice on occupiers which requires them to take action in order to prevent the spread of “injurious weeds”

The act does not make it an offence to permit injurious weeds to grow on land but empowers the Secretary of State for Scotland to serve notice on an occupier requiring that occupier to take action to prevent the weeds from spreading.

There are two species that have the potential to have a significant impact within Fife at present: Japanese Knotweed and Ragwort.

Specifically the Ragwort Control Bill received Royal Assent on 20th November 2003 and came into force on 20th February 2004.

The Act provides specifically for more effective management of the weed requiring landowners and occupiers to prevent the spread of Noxious Weeds.

The Code of Practice is to Prevent and Control the Spread of Noxious Weeds e.g. Ragwort and forms a practical guide to help public bodies, Local Authorities, Land Owners and occupiers of land to control such weeds.

Where Does Responsibility Lie?

If the land is contaminated by Japanese Knotweed it is covered by the Wildlife and Countryside Act 1981 and Environmental Protection Act 1990, both place responsibility upon those owning or working on the site, i.e. the land owner and/or contractor, to control it. This means:

- It is illegal to allow the plant to spread.
 - The plant has a duty of care placed on it and must be treated as a controlled waste.
-

Local Authority / Fife Council Land

On Fife Council owned land, Parks & Countryside in the past have taken the lead in weed control but there are plans that this may change in future years.

The DEFRA Code of Practice provides guidance in adopting a strategic approach to control; this may be used to assist the Council in identifying priority areas for action by categorising High, Medium and Low Risk areas depending upon the proximity of grazing horses or other animals or areas used for feed/forage production.

The Code of Practice also points out; however, that nature areas and designated sites such as Sites of Special Scientific Interest (SSSI's) often contain Ragwort as part of their natural flora.

Private Land

A significant proportion of Ragwort growth is on privately owned land over which the Council has no control and where responsibility for enforcing the Weeds Act on such areas lies with DEFRA.

Fife Council may be able to take action under specific Management Rules or Byelaws “where adopted”, or under the Town and Planning Act 1990; for example on residential development areas.

Injurious weeds can be controlled using a number of chemical or cultural means, care should be taken to choose the most appropriate method for the specific circumstances of each site and a LERAP must be completed.

This applies particularly to sites of special conservation interest where control of the injurious weeds may risk damaging rare or valuable flora and fauna.

Use of Herbicides

Note: This document will be kept under review as the continuing validity of the herbicide recommendations could change. Please check to ensure that you have the most up to date information on revoked or introduced pesticides.

The application of herbicides is subject to regulations which must be observed when using these products, these are summarised in **The Code of Practice for the Safe Use of Pesticides 2005**.

Instructions for use including operator and environmental protection, the crops or plants on which the product may be used, maximum dose, harvest interval and other details are shown **ON THE PRODUCT LABEL**.

Each time a product is used you must **READ THE LABEL AND FOLLOW THE INSTRUCTIONS**.

Pesticides can only be applied by operators who hold a certificate of competence as recognised by DEFRA.

Non-Selective Herbicide Treatment

Control of injurious weeds can be undertaken using a non-specific herbicide such as glyphosate either as an overall spray or using a height selective applicator or spot treatment, Non-selective herbicides must be used with care to ensure that non-target vegetation is not damaged.

Selective Herbicide Treatment

Injurious weeds can be controlled using selective herbicides, although most products are generally used as an overall spray, some can also be applied through a selective height applicator or as a spot treatment to improve their selectivity.

This guidance sheet provides details of the most favoured active ingredients for the control of each injurious weed specified under the Weeds Act 1959, these active ingredients may be available alone or in mixtures with other chemicals and qualified advice should be obtained to determine the most appropriate product especially when mixed populations of weeds occur.

Ragwort control

Common Ragwort (*Senecio jacobaea*) is the only ragwort species specified in the Weeds Act 1959. Other species of *Senecio* are not as widespread as common ragwort. Flowering is from late June onwards to early autumn when the characteristic yellow inflorescences usually extend between 30-100 cms in height.

Ragwort occurs in neglected fields, uncropped ground and amenity areas. It prefers light soils of low fertility, particularly in over or under-grazed pasture. Common ragwort is biennial when undisturbed but can develop perennial characteristics following cutting or treading.

Ragwort is a potential killer, it is poisonous to livestock, eating ragwort can lead to liver damage which cannot be treated. Cattle and horses are particularly susceptible to poisoning by common ragwort but sheep are also susceptible, palatability of the weed increases when plants are conserved in hay or silage or treated with herbicide. An added problem is that livestock cannot easily reject fragments of ragwort in conserved herbage and its poisonous alkaloids are unaffected by the conservation process, dried and dying ragwort is also dangerous because it is more palatable to livestock than the living plant. It is important, therefore, to ensure that before animals are allowed to graze, ragwort plants are removed or have completely disappeared after using control techniques.

Prevention is the best form of control. Good pasture management which keeps the grass sward tight will minimise the chance of ragwort establishing, in addition the legislation is to encourage neighbouring landowners to control ragwort to prevent seed spreading which will in turn, reduce the likelihood of seed germination.

If land is affected by ragwort there are a number of control options available. The most suitable method of control will depend on circumstances and how far time or costs are limiting factors. To be successful all control methods must be accompanied by improved grassland management. There is no right or wrong approach, each method has its advantages and disadvantages.

Where short-term action is undertaken to clear existing plants, reinfestation will be rapid unless housekeeping or husbandry is improved, particularly for uncropped ground and grassland.

Cutting and stem removal - at the early flowering stage reduces seed production but does not destroy the plant. Cut plants left lying in the field are a serious risk to grazing animals and may still set seed. These should be removed safely disposed - **as controlled – special waste**

Pulling (and digging) - can also prevent seed spread but may not give long-term control. Plants should be removed safely disposed - **as controlled – special waste**

Herbicides - no single herbicide treatment will completely eliminate a ragwort infestation due to successive germinations of the weed, treatment with selective herbicides can be made to the plant rosettes usually late spring and in the autumn before frost damages the foliage.

Spear Thistle Control

Spear thistle (*Cirsium vulgare*) occurs widely on lowland and upland grassland and waste sites. The weed competes effectively with crops for water, light and nutrients, it is biennial and only spreads by seed, mature plants are normally 30-50 cm tall, with flowers from July through to late autumn, large numbers of seeds are produced which can be blown by wind.

The plants can be cut each year before mid-July to prevent spreading of viable seed, it is also possible to remove them by digging. Long-term control is possible using herbicide treatment; spear thistle is susceptible to many herbicides.

Creeping or Field Thistle Control

Creeping thistle (*Cirsium arvense*) can quickly dominate vegetation in grassland or waste ground. The weed forms dense patches, which suppress crop plants, mature plants extend 30 - 100cm in height, with flowers from July into late autumn each year, the plants produce only a few viable seeds which can be blown by wind.

However, invasion is more often by spread of the plants' underground root systems.

Cultivation is not an effective means of control as the number of root pieces which can throw up new shoots is increased. Control on arable land therefore is usually by use of a range of herbicides depending on the field crop grown.

On grassland, cutting at flower stem extension before the flower buds opens will prevent seeds spreading for that particular season. Repeated cutting at the same growth stage over several years may "wear down" an infestation.

Herbicides applied during the early bud stage will kill the aerial parts of the plant, but repeat treatments the following year may be necessary for complete control. One application of a herbicide is normally sufficient to achieve an acceptable level of control.

Broad-Leaved Dock and Curled Dock Control

Broad-leaved dock (*Rumex obtusifolius*) thrives in high nitrogen environments, open swards and where there is heavy treading by stock. Curled dock (*Rumex crispus*) occurs more commonly on arable and waste land.

Both species produce many seeds which can remain viable in soil for decades. Buds on pieces of tap-root broken by soil disturbance or treading will produce new plants. The two species are similar in appearance but leaf shape differs, as reflected in their names. Hybrids are common between the species and this can hinder identification. Flowering for both species is from late June until early autumn with inflorescences reaching over 100 cm in height.

Herbicides can be used to control these species as follows:

| Broad-Leaved Dock and Curled Dock | |
|-----------------------------------|--|
| Seedlings: | Please request information for pesticides details and COSHH Data where the infestation is for newly sown grass areas. |
| Established: | Please request information for pesticides details and COSHH Data where the infestation is for established grass areas. |

Giant Hogweed

Giant Hogweed is similar in appearance to our native cow parsnip, only it is much larger and the hairs on the under surface of the leaf are shorter (about 25 mm long). A public health hazard, hogweed's clear, watery sap has toxins that cause photo-dermatitis. Skin contact followed by exposure to sunlight produces painful, burning blisters that may develop into purplish or blackened scars

A member of the parsley family, its most impressive characteristic is its massive size, it reaches a height of 10 to 15 feet when in flower and has hollow stems 2 to 4 inches in diameter with dark reddish-purple spots and bristles, coarse white hairs at the base of the leaf stalk are also purplish, and each purple spot surrounds a blister-based hair.

The deeply incised compound leaves grow up to 5 feet in width. Giant hogweed flowers mid-May through July, with numerous white flowers clustered in an umbrella-shaped head that is up to 2.5 feet in diameter across its flat top. The plant produces flattened, 3/8-inch long, oval dry fruits that have a broadly rounded base and broad marginal ridges. Hogweed prefers moist soil and can quickly dominate ravines and stream banks.

Strimming & Handling – avoid any skin contact with the sap because it causes burns, blisters and possible scarring. Do not use strimmer; reduce height of plant using loppers, bill hook or similar tools.

Control – dig out young plants ensuring to remove taproot, revisit the site regularly to remove any further growth. The best control is by **Pesticides / Herbicide Application** reducing the height of all plants to approximately 1 mtr. disposing of spoil carefully to avoid anyone touching sap or dispersing seeds, place all cut material into carrying sack and flower heads into refuse sacks for disposal to Local Authority Landfill Site. Use Round-up (Glyphosate) herbicides these can be used in or near water, do not add any other substance, if necessary complete a Local Environmental Risk Assessment Plan (LERAP - if near water, etc).

Japanese Knotweed (*Polygonum cuspidatum*)

In the spring the stem is a fleshy shoot of red and green.

The Summer Stem grows to a maximum height of 2-3 metres and is green with red/purple specks; hollow with distinct nodes like bamboo; forms dense clumps.

The growth emerges in the spring and flowers in late summer. The minute greenish-white flowers occur in branched sprays in summer and are followed soon after by small winged seeds. Plants die back in the Autumn/Winter, but stems can persist as upright, brown, hollow stalks. This plant is very destructive to any property or structures, etc.

Control - is by the use of **Pesticides / Herbicide Application** – use Round-up (Glyphosate) herbicides these can be used in or near water, do not add any other substance

Personal Protective Equipment:

- ⇒ **Operatives to wear coveralls, nitrile/neoprene gloves 0.5mm thick, boots, and respirator type face mask and protective goggles when handling the herbicide.**
- ⇒ **If contamination should occur wash skin with soap & water.**
- ⇒ **Exposure of operatives to pesticide should be recorded so no operative exceeds the recommended OSE levels.**
- ⇒ **Access to washing & eye irrigation systems should be provided at all times for the operatives.**

Remember...

It is necessary to liaise with landowners, land users, SEPA (if near a watercourse or if the land is of natural and/or of wildlife value).

Root fragments as small as 0.7g can regenerate to form new plants.

Eradication takes more than 1 growing season. This may have contractual implications, as follow-up control may be required beyond the usual 12 months defects liability/maintenance period of most ICE-based contracts.

Pesticides are a pollutant and a possible health hazard, & disposal of unwanted products should be via special waste disposal contractors.

Complete the LERAP Log all control measures taken to provide a databank for later efforts & as a legal requirement for operations involving pesticides.

Herbicides are only to be handled and applied by persons holding a valid Certificate of Competence issued under the Control of Pesticides Regulations 1986