Isle of Man Government

Reiltys Ellan Vannin

The Cushag Code

A code of best practice for the management of common ragwort *Senecio jacobaea*



Department of Environment, Food and Agriculture

Rheynn Chymmltaght, Bee as Eirinys

July 2013

This code has been written in partnership between the Agriculture Directorate of the Department of Environment, Food and Agriculture, Department of Infrastructure Highways Division, Manx Horse Council, Manx National Farmers Union and the Wildflowers of Mann

Cushag- our National flower?

Ragwort, or 'cushag' as it is known in Manx is a plant that has divided opinion on the Isle of Man for many years. Vilified by many, particularly horse enthusiasts for its toxicity to horses and livestock, tolerated by those who appreciate its benefits to wildlife and embraced by some as the unofficial flower of the Isle of Man, it is unlikely that any measures designed to control its spread, yet retain its value to wildlife will ever be to the satisfaction of all.

Its history as the unofficial emblem of the Isle of Man is reputed to have been bestowed by Lord Raglan, Governor of the Island from 1902-1918. When asked to pick a national flower for the Island, as was the fashion in other places at the time, in jest and perhaps as a slight on his perceived state of the countryside at the time, he suggested that cushag would be a fitting species. The joke appears to have been lost over the last century, but the myth of cushag as a national flower remains.

Perhaps a more constructive example of the role of cushag in Manx heritage is in a poem written by Manx poet Josephine 'Cushag' Kermode celebrating its 'golden flowers'.

"The Cushag"

Josephine 'Cushag' Kermode (1852–1937)

Now, the Cushag, we know,
Must never grow,
Where the farmer's work is done.
But along the rills,
In the heart of the hills,
The Cushag may shine like the sun.
Where the golden flowers,
Have fairy powers,
To gladden our hearts with their grace.
And in Vannin Veg Veen,
In the valleys green,
The Cushags have still a place.

Her practical advice to prevent ragwort growing in farmland, but to allow it to retain a place in the 'valleys green', which we can take to mean wild places such as glens and nature reserves, echoes the advice to be found in this Code of Best Practice.

Scope

1. This code applies to Common Ragwort *(Senecio jacobaea)* and all subsequent references to "cushag" and "ragwort" in this code refer to "Common Ragwort".
Other species of ragwort are present on the Isle of Man but are not classed as injurious to agriculture but are known to be poisonous to cattle and horses. Significant infestations of these species which are a threat to livestock could also be dealt with using the guidance in this Code.

Aim

2. The Code aims to define the situations in which there is a likelihood of ragwort spreading to neighbouring land where it will then present an identifiable risk of ingestion by vulnerable animals (livestock and particularly horses), and to provide guidance on the most appropriate means of control, taking into account both animal welfare and environmental considerations.

Introduction

3. Ragwort is a native species to the Isle of Man. It is a specified weed under the Weeds Act 1957. It contains toxins which can have debilitating or fatal consequences, if eaten by horses and other grazing animals and can cause great pain and suffering. Ragwort is less likely to be rejected by stock if dried i.e. if cut or pulled and left lying in the presence of livestock. Contamination of forage (hay, haylage and silage) is a particular problem. People may also be at risk from ragwort poisoning through direct contact with skin (e.g. hand pulling).

4. This code does not seek to eradicate ragwort. Ragwort, as a native plant, is important for wildlife in the Isle of Man. It supports a wide variety of invertebrates and is a major nectar source for many insects including the rare heath bee-fly. In many situations ragwort poses no threat to horses and other livestock. It is a natural component of many types of natural grassland and is used by some invertebrate species of conservation importance. However it is necessary to prevent its spread where this presents a risk of poisoning horses and livestock or spreading to fields used for the production of forage. Control should be instigated where a **high or medium risk** is identified (see Paragraph 18).



Heath bee-fly on ragwort

5. Ragwort is a highly successful species and in certain situations it can be difficult to control particularly where it has not been effectively managed for a number of years. As a result it might be necessary to use a variety of control methods over an extended period to reduce the extent of the infestation.

The plant

6. Cushag or Common Ragwort *(Senecio jacobaea)* is an erect plant usually 30cm-100 cm tall. The stems are tough and often tinged red near the base, but bright green and branched above the middle. The basal rosette of leaves usually dies before flowering. The leaves are deeply dissected, with irregular, jagged-edged lobes. All the leaves are dark green and rather tough and may be sparsely hairy on the lower side. The flower head is a conspicuous, large, flat-topped and densely packed with yellow flowers, all of which are bright yellow. The seeds are borne singly and have a feathery appendage making them readily wind dispersed.

Biology

7. Common Ragwort is normally a biennial (rosette 1st year and flowering 2nd year). During its first year of growth it establishes a rosette of basal leaves and over winters in this way. During the second year the rosette sends up one or more leafy stem, up to one metre in height, which is unbranched and produces numerous flower heads at the top. The flower heads are carried in a large flat-topped cluster. Flowering usually occurs from June until late October after which the plant dies.

8. Common Ragwort can also behave as perennial (flowering every year) after damage to the crown such as cutting, grazing, hoof damage, damage by machinery and following incomplete or ineffective hand pulling in dry weather. It can also remain in the rosette stage for several years under intensive cutting regimes such as may be practised on amenity grassland.

Habitat

9. Common Ragwort can be found over a large range of soil types and climatic, conditions and can be characteristic of badly managed grasslands, where trampling breaks the sward, where patches of turf have died in drought or where there is over or under grazing. However, well-managed acid/calcareous grasslands may naturally contain ragwort. Disturbance to grass verges, embankments and woodland areas which leads to open soil are also favourable conditions for seedling establishment.

Other species of Ragwort

10. Marsh Ragwort *(Senecio aquaticus)* is locally abundant in wet areas of fields, ditch banks and marshes. Oxford Ragwort *(Senecio squalidus)* is rare in the Isle of Man but may be found on roadsides, railway land, old walls and unmanaged land. These species are not listed on the Weeds Act 1959

Identification

11. Species which may be confused with Common Ragwort *(Senecio jacobaea) but are not covered by this code include:*

Other widespread Ragwort species

Marsh Ragwort *Senecio aquaticus*
Oxford ragwort *Senecio squalidus*

(which are also toxic to livestock)



Other tall yellow composites
Tansy *Tananetum vulgare*
Heath Groundsel *Senecio sylvaticus*
Hawkweeds *Hieracium spp.*
Hawk's beards *Crepis spp.*
Hawkbits *Leontodon spp.*
Cat's ears *Hypochaeris spp.*
Sow Thistles *Sonchus spp.*
Fleabane *Pulicaria vulgaris*
St. John's worts *Hypericum spp.*
Yellow Loosestrife *Lysimachis vulgaris*
Goldenrod *Solidago virgaurea*



Legal framework

12. Under the Weeds Act 1957 the Department, if satisfied that injurious weeds are growing upon any land, can serve a notice requiring the occupier to take action to prevent the spread of those weeds. An unreasonable failure to comply with a notice is an offence. The Weeds Act applies to:

- Common Ragwort *(Senecio jacobaea)*
- Spear Thistle *(Cirsium vulgare)*
- Creeping or Field Thistle *(Cirisium arvense)*
- Curled Dock *(Rumex crispus)*
- Broad-Leaved Dock *(Rumex obtusifolius)*
- Wild Oat *(Avena fatua)*

DEFA gives priority to investigating complaints where there is a high risk of weeds spreading to land used for grazing horses or livestock, land used for forage production and other agricultural activities. Complaints assessed as being of medium risk will be investigated where officer time permits.

13. The provisions of the Weeds Act only apply to Common Ragwort and do not apply to other ragwort species. Other species of ragwort may be equally toxic to horses or other livestock, but are less common or relatively rare. The Department reserves the right to add or remove other injurious species to the Act in the future or issue further Codes of Practice if such species become prevalent on agricultural land. It is important to make correct identification of Common Ragwort before considering any control measures. Obligations and restrictions under ASSI designations or other land management agreements must also be considered and discussed with DEFA before control is initiated.

Responsibilities to Control the Spread of Ragwort

14. Responsibility for control rests with the occupier of the land on which ragwort is growing. This responsibility applies to ragwort and the other weeds specified under the Weeds Act. When seeking to prevent the spread of ragwort it is expected that all landowners, occupiers and managers will co-operate and, where necessary, take a collective responsibility for ensuring that effective control of the spread of ragwort is achieved.

15. The most effective way to prevent the spread of ragwort is to prevent its establishment through annual management rather than last minute control. In farmland, good agricultural management will minimise the chance of ragwort establishing. In amenity areas, highway verges, railway land and woodland, any activities which cause disturbance to the soil and the loss of ground cover may increase the risk of ragwort becoming established.

16. Occupiers of all land, including uncultivated land, derelict and waste areas, should be vigilant for the presence of ragwort. Action to prevent its spread should be taken where ragwort poses a high risk to land used for grazing, or forage production.
Detection at an early stage will enable any potential problems to be more easily, safely and economically dealt with.

Assessing the Risk Posed by Ragwort

17. Where land is affected by ragwort the owner/occupier should make an assessment to determine whether action should be taken to prevent the spread of ragwort to neighbouring land by establishing the risk posed to grazing animals or forage production.

18. The following three risk categories for distance and infestation are provided as *guidelines* for assessing risk and should be combined using a matrix approach similar to that in Figure 1 to determine the overall risk. **Note that all infestations, however small may pose a risk of spread and early control will prevent more significant future problems**

Distance

High Risk:
• Ragwort is present and flowering within 5m of land used for grazing by horses and other animals or land used for feed/forage production

Medium Risk:
• Ragwort is present within 5m to 30m of land used for grazing by horses and other animals or land used for feed/forage production

Low Risk:
• Ragwort or the land on which it is present is more than 30m from land used for grazing by horses and other animals or land used for feed/forage production.

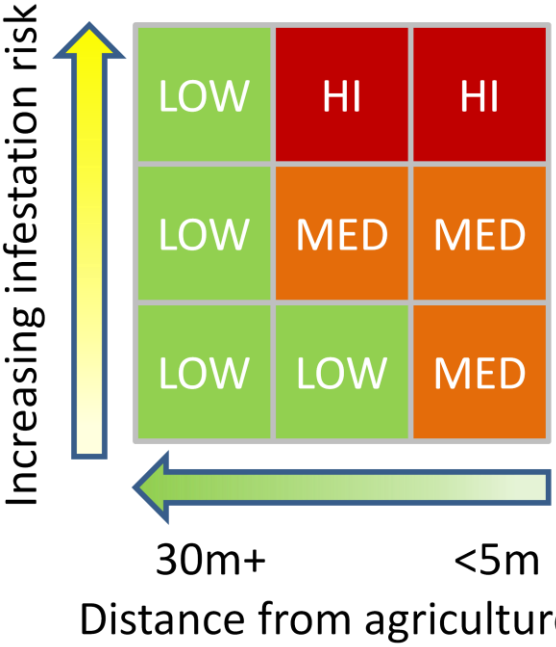
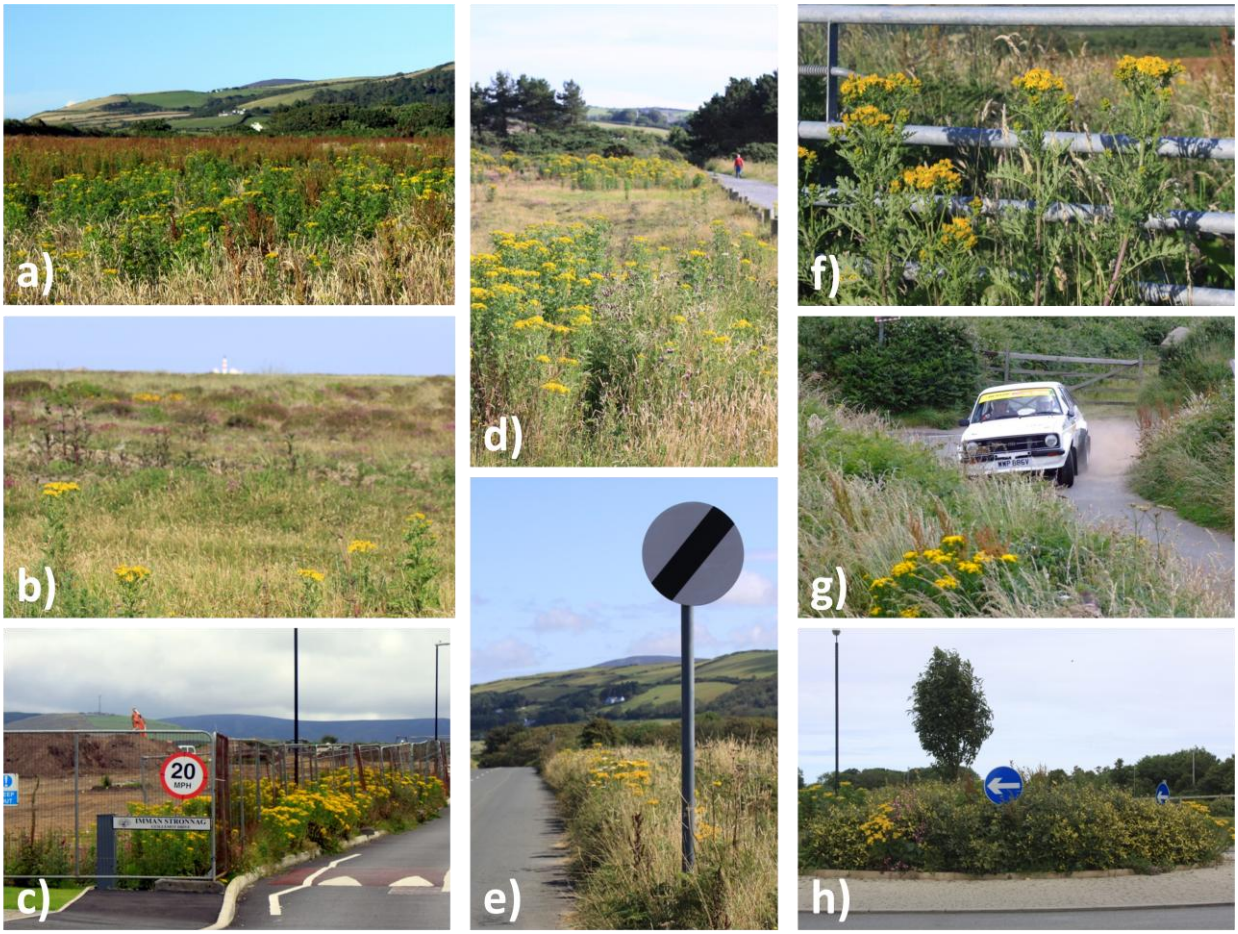


Figure 1: Matrix of perceived risk for ragwort infestations

When assessing risk, account should also be taken of particular local circumstances and other relevant factors such as prevailing winds, topography, shelter belts, natural barriers, soil type and vegetation cover of receiving land.

The matrix should be used as a guideline only, with the overall risk factor determined by the likelihood of ragwort spreading to land used for grazing and/or feed/forage production.



Some typical scenarios where ragwort can be encountered and the likelihood of a notice being issued

	Location example	Application of matrix	Risk to agriculture		Serve Notice?
a	Agricultural field	Distance: high risk Infestation: high	High		Y
b	Nature reserve	Distance: low risk Infestation: low	Low		N
c	Building site	Distance: low risk Infestation: high	Low		N
d	Nature reserve	Distance: low risk Infestation: high	Low*		N*
e	Roadside hedge (rural)	Distance: high risk Infestation: medium	Medium		Y
f	Field gate	Distance: high risk Infestation: low	Medium		Y
g	Roadside hedge (urban)	Distance: medium risk Infestation: low	Low		N
h	Urban edge roundabout	Distance: medium risk Infestation: medium	Low		N

*Whilst not a risk to agriculture, such high density is not natural, nor desirable on a nature reserve and should be controlled.

Action to be taken by Farmers and livestock owners

19. Livestock owners are responsible for the welfare of their animals and they should satisfy themselves that their stock is not exposed to the risk of ragwort poisoning. Producers of conserved forage should also ensure that ragwort is not contaminating forage.

In particular they should:

- ensure fields are maintained in good condition and are not under or overgrazed
- inspect land regularly for ragwort
- move stock to ragwort free land where practicable and take into account the likelihood that particular animals will ingest ragwort
- remove ragwort plants where necessary using an appropriate control technique (see Table 1) taking account of the status of the land (i.e. wildlife designations or protected species)
- dispose of ragwort plants where they cannot be ingested by livestock
- follow safety guidelines when handling chemicals and the toxic ragwort

Action to be taken by other Owners/Occupiers of Land

20. Owners/Occupiers should:

- identify land on which ragwort is present
- review the risk of spread to land used for grazing or conserved forage
- ensure managed grassland is maintained in a good condition
- where appropriate and safe to do so avoid removing ground cover in amenity areas, roadside verges and on railway land unless provisions are made for the appearance of ragwort
- pay particular attention to areas of bare/disturbed land
- where a **high risk** is identified – take **immediate** action to control the spread of ragwort using an appropriate control method (see Table 1) taking account of the status of the land.
- where a **medium risk** is identified -establish a control policy to ensure that no further spread to adjacent land can occur.
- where a **low risk** is identified- no immediate action is required, but is advisable. However, where an increase of spread can be anticipated, ensure that it is dealt with in a timely and effective manner using appropriate control techniques.
- dispose of ragwort plants in an approved manner
- follow safety guidelines
- monitor the impact of clearance action to ensure its effectiveness for up to six months or to the end of the growing season if sooner.

Ownership of hedges and verges

21. Misconceptions exist on ownership of land surrounding public highways, hedges and verges. The Department of Infrastructure have ownership and responsibility for control of weeds on their own land, which includes:

- The public highway
- Road verges (hedge base to hedge base)
- Green lanes

but does not include:

- Hedges
- Public rights of way on private land
- Footpaths on private land

The Department of Infrastructure may cut hedges, and footpaths on private land, but will only do so to clear obstructions and remove nuisance to highway users i.e. if vegetation is obstructing a footway or reducing visibility at a road junction. The Department are not responsible for the management of ragwort and other injurious weeds on private land.

Control Methods

22. A summary of possible control methods are shown in Table 1. In many cases a single control method or single application will not be completely effective and consideration should therefore be given to combining more than one control/management technique. Effective control might not be achieved in one season, particularly where it is a dense infestation, which has been inappropriately managed in the past. The cost categories shown in the table do not provide a reliable guide to costs where linear land such as roads and highways is concerned.

Control Policies

23. Where a medium or high risk has been identified, owners/occupiers and managers of land, including private and public land, highways, waterways, railways, conservation and amenity areas and land awaiting development, should develop a ragwort control policy. Such policies should take account of the need for vegetation management, including weed control and identify ragwort as a specific weed that should be controlled. The nature conservation status and biodiversity attributes of the land, and the contribution to them made by the ragwort, must also be considered when determining the type and level of control instigated.

24. When considering what is practical owners/occupiers/managers should balance the risk against the time and cost of taking the action, and consider whether the cost of control is proportionate to that risk. For some categories of land e.g. railway land and trunk roads this might make regular inspections of all land holdings impractical. In such situations complaints and reports should be used to accumulate information on ragwort "hotspots". However, it should be noted that densities can increase where conditions are suitable and it is advantageous to deal with minor infestations where possible.

25. Any control efforts should consider collaboration and co-operation with neighbours to achieve effective control of the spread of ragwort. Wherever practicable control action should be taken at early stages of growth in order to reduce the risk of seed dispersal and thereby achieve more effective long-term control.

26. Where a low risk is identified (see paragraph 17 above), but the presence of ragwort is likely to present a risk in the future, contingency plans should be prepared for its control. Where there is no immediate risk the presence of ragwort should be recorded and the situation should be monitored six monthly to ensure that the risk is reassessed should circumstances change.

Enforcement

27. Where a potential problem is identified contact should first be made with the owner/occupier or relevant body responsible for the land on which the ragwort is growing to attempt to resolve the matter informally, before contacting DEFA. Where, having been requested to do so, the owner/occupier/relevant body fails to take any action to prevent the spread of ragwort or fails to demonstrate compliance with this Code, DEFA should be notified.
However, if the landowner is unknown, or it would be inappropriate to directly contact the landowner, details of the weed problem should be passed directly to DEFA.

28. Upon being contacted, the Agriculture Directorate of DEFA will assess the problem and may serve a notice under the Weeds Act where ragwort is assessed to pose medium or high risk to horses, other livestock, the production of conserved forage or other agricultural activities. The landowner will have a specified time period to deal with the problem. If the problem persists after the allotted period, the landowner may be prosecuted under the powers vested in the Weeds Act**.**

Advice and Reporting of Ragwort infestations

For reporting of infestations and further advice on the identification and control of ragwort can be obtained from:

Department of Environment Food and Agriculture Thie Slieau Whallian, Foxdale Road, St Johns, IM4 3AS Phone: (01624) 685835 E-mail defa@gov.im

Advice on safe working practices can be obtained from:

Health and Safety at Work Inspectorate, Ground Floor, Murray House, Mount Havelock, Douglas, Isle of Man IM1 2SF Phone: (01624) 685881 E-mail worksafe.doi@gov.im

Contacts

Manx National Farmers Union
Agriculture House,
Ballafletcher Farm Road,
Tromode, Isle of Man, IM4 4QE
Telephone: +44 (0) 1624 662 204
E-mail: gensec@manx-nfu.org

Highways Division
Dept of Infrastructure
Sea Terminal
Douglas
IM1 2RF
E-mail enquiries@highways.gov.im

Manx Horse Council
Mr W A Gilbey
Ballacallin Mooar
Crosby
Isle of Man
IM4 2HD
E-mail waltergilbey@manx.net

Wildflowers of Mann
Manx Wildlife Trust
7-8 Market Place
Peel
Isle of Man
IM5 1AB
E-mail enquiries@manxwt.org.uk

Method	Labour required	Cost	Prevention of flowering	Success of control long term	Grazing removal period (days)	Optimum time of treatment	Suitable for large areas?	Suitable for dense ragwort colonies?	Remarks
Cutting	*	£	**	*	0	Flowering	***	***	This should be viewed as emergency treatment to prevent seeding. Seed heads must be cut before they mature and follow up control will be required.
Levering out	***	£	***	**	0	Flowering	*	*	Tools required. Easier when soils are wet. Dependent on spotting plants.
Herbicide (citronella oil derived product	***	£££	***	***	7[1]	Basal Rosette and flowering	*	*	Dependent on spotting plants. Large plants may need to be resprayed two weeks later.
Herbicide (selective spraying)	*	££	***	***	21[1]	Basal Rosette	***	***	Most products will kill other broadleaf plants that are incidentally sprayed.
Herbicide spot spraying	***	££	***	***	21[1]	Rosette or flowering	***	*	Dependent on spotting plants. Some may be missed
Herbicide weed wipes	*	££	**	**	21[1]	Flowering	***	***	Smaller plants will be missed
Pulling by hand	***	£	***	**	0	Flowering	**	*	Gloves must be worn. Easier when soil is wet.
Pulling by machine	*	££	***	**	0	Flowering	***	***	Will only pull taller plants

[1]These figures are a guide only. Always follow the manufacturer's instructions



Isle of Man
Government

Reiltys Ellan Vannin