

Code of Practice to Prevent and Control the Spread of Ragwort

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INTRODUCTION

The aim of this guidance is to prevent and control the spread of **Common ragwort** (*Senecio jacobaea*) where it is a threat to the health and welfare of grazing animals, in particular horses and cattle. It provides information on the biology and identification characteristics of Common ragwort, and other members of the same native species family, which may cause some identification problems. Particular emphasis has been placed on when, where and how to control ragwort, with the aim of educating owners, occupiers and land users as to their responsibilities with regards to ragwort and the other weeds specified in the Weeds Act 1959, i.e. Spear thistle (*Cirsium vulgare*), Creeping or field thistle (*Cirsium arvense*), Curled dock (*Rumex crispus*) and Broad-leaved dock (*Rumex obtusifolius*).

This guidance does not seek to eradicate Common ragwort, as it is a native plant and supports many species of wildlife in the UK including five 'red data book' and eight 'nationally scarce' species. Common ragwort is a natural component of unimproved grassland and more than 170 species have been recorded feeding on ragwort nectar, making it an important source of insects subsequently exploited by birds and mammals. Hence, in the right environment, and where it causes no risk to grazing animals, ragwort greatly contributes to the biodiversity of the flora and fauna in our countryside.

Horses are particularly susceptible to ragwort poisoning and ingestion of it, either in its green or dried state, can cause serious liver damage resulting in tragic consequences. Poisoning by ragwort may be acute due to the rapid intake of a large quantity, and death can occur in a few days. More commonly the effects are chronic and cumulative, and in some cases it can be months after eating ragwort before symptoms in the animal begin to appear, generally leading to death. Distressing signs include haemorrhage, weight loss, loss of coordination, depression, seizures and coma. Lethargy and yawning are also characteristic symptoms, giving rise to the name 'sleepy staggers'.

Complete prevention of poisoning from ragwort is only possible by denying stock access to infested fields or infested feed. Denying access to infested fields is usually impracticable, so removing the weed to levels where it does not create problems, and reducing the likelihood of reinfestation should be the aim of management strategies. Hence, this Guidance has been prepared to promote good practice and good neighbourliness, and aims to significantly reduce the risk of poisoning to horses and livestock. It is intended for use by all owners of horses and livestock; landowners, land occupiers and stakeholders representing a wide variety of interests. It is particularly relevant for large-scale organisations managing significant land areas, including local authorities and public bodies.

This Guidance provides comprehensive information on how to develop a strategic and cost-effective approach to ragwort control and gives advice on:

- Identification of Common ragwort (*Senecio jacobaea*);
- Risk assessment and priorities for ragwort control;
- Control methods – their suitability and efficacy;
- Environmental considerations;
- Health and safety issues.

The Welsh Assembly Government urges all landowners and land managers to work with horse and livestock owners to adopt the recommendations of this Guidance.

How to Prevent the Spread of Ragwort

Scope

1. This Code of Practice to Prevent and Control the Spread of Ragwort applies to Common ragwort (*Senecio jacobaea*) and all subsequent references to 'ragwort' in this code refer to 'Common ragwort'. This code applies to Wales only (although separate documents are available in England and Scotland).

Aim

2. The aim is to define situations where there is a likelihood of ragwort spreading to neighbouring land where it poses a risk of ingestion by vulnerable animals. This Code provides guidance on the most appropriate means of control, taking into account both animal welfare and environmental considerations.

Introduction

3. Ragwort is a native species of the British Isles, and is a specified weed under the Weeds Act 1959 (see **photograph 1, page 13**). It contains pyrrolizidine alkaloids (PAs) which are highly toxic to a range of animals, particularly horses and cattle along with pigs and chickens. Sheep, goats and deer are more tolerant. Ragwort can contain nine or ten different PAs which are metabolised in the liver, leading to severe liver damage and often death.
4. Chronic ragwort poisoning is most common as the effects of the PAs build up in the liver over time and can often take weeks (or even months) for symptoms to become visible. However, if an animal consumes a large quantity of ragwort in a short space of time, poisoning can be acute, and can cause death in a matter of days. Horses and cattle cannot distinguish ragwort once it has withered (as in hay or in silage) as it loses its bitter taste, although it retains all of its toxicity. In silage bales, the toxic PAs can diffuse out of the ragwort and affect the entire mass of silage; thus a single plant in a bale of silage can be enough to poison several animals (SAC, 2005).
5. Ragwort may also be harmful to humans, particularly where toxic plant juices on hands may contaminate food and snacks. Research undertaken on direct contact of ragwort by hand pulling is limited, but a theoretical risk remains. Research during the 1990s suggested that the risk to human health in the UK through the contamination of staple foods, i.e. grain, milk, eggs and honey, is likely to be insignificant.
6. This guidance does not seek to eradicate ragwort because as a native plant it is very important for wildlife in the UK. It supports many species of wildlife, including Common broomrape (*Orobanche minor*), 14 species of fungi and many different invertebrates, such as moth caterpillars, thrips, plant bugs, flies, beetles and mites. With the decline in flowering plant diversity in the countryside, ragwort has assumed an increasing importance as a source of food for generalist nectar feeding insects in the late summer.

7. Ragwort is the food plant of at least 77 species of foliage eating insects, including five 'Red Data Book' and eight 'nationally scarce' species. The most well known is the cinnabar moth (*Tyria jacobaeae*). At least 30 species of insects are confined to ragwort and some species use the ragwort flowers as territory markers or vantage points to find passing prey or mates. Others are more closely associated with taking ragwort pollen, and more than 170 species have been recorded feeding on ragwort nectar. This important source of insects is exploited by many species of birds and mammals.
8. In many situations ragwort poses no threat to horses and other livestock. It is a natural component of many types of unimproved grasslands. It is necessary to prevent its spread where it presents a high risk of poisoning horses and livestock or spreading to fields used for the production of forage. A control policy should be put in place where a high and medium risk is identified (**see paragraph 17**).
9. Ragwort is normally a biennial plant, present as a rosette close to the ground in its first year (**see photograph 2, page 13**) then growing upwards and flowering during its second year. However, cutting or topping ragwort may alter the plant's lifecycle and result in it being present as a perennial. It 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 may be necessary to use a variety of control methods to reduce populations over extended periods of time, if the risk is deemed to be problematic.

Legal Framework

10. The Weeds Act 1959 gives Welsh Ministers the statutory powers of enforcement. If satisfied that injurious weeds are growing upon any land, Welsh Ministers may serve a notice requiring the occupier to take action in order to prevent the spread of those weeds. Any unreasonable failure to comply with a notice is an offence. The Weeds Act applies to¹:
 - Common ragwort (*Senecio jacobaea*);
 - Spear thistle (*Cirsium vulgare*);
 - Creeping or field thistle (*Cirsium arvense*);
 - Curled dock (*Rumex crispus*);
 - Broad-leaved dock (*Rumex obtusifolius*).
11. The Rural Inspectorate in Wales gives priority to investigating complaints where there is a risk of injurious (harmful) weeds spreading to land used for grazing horses or livestock, land used for forage production and other agricultural activities.

¹ Welsh Ministers are empowered to add to this list as necessary.

12. The provisions of the Weeds Act do not apply to other ragwort species. Other species of ragwort, e.g. Marsh ragwort (*Senecio aquaticus*), Hoary ragwort (*Senecio erucifolius*) and Oxford ragwort (*Senecio squalidus*) are less common but may still need to be controlled as they may be equally toxic to horses or other livestock.
13. Some species of ragwort are relatively rare, such as Fen ragwort (*Senecio paludosus*), which is a protected species and has been reintroduced into several sites in England. Welsh ragwort (*Senecio cambrensis*) (also sometimes known as Welsh groundsel) is restricted entirely to North Wales. Where ragwort is identified on land protected through environmental or ecological designation, or by means of other land management agreements, the required obligations and restrictions must also be fully considered and discussed with the appropriate authorities (**see appendix 4**) before control action is initiated.

Responsibilities to Control the Spread of Ragwort

14. Responsibility to prevent and control the spread of ragwort rests with the occupier of the land on which the ragwort is growing. This responsibility applies to ragwort and the other weeds specified under the Weeds Act 1959. When seeking to control its spread it is expected that all landowners, occupiers and managers will co-operate and take a collective responsibility for ensuring that effective control of its spread is achieved.
15. The most effective way to prevent the spread of ragwort is to preclude its establishment through strategic management rather than last minute control. In managed grasslands, good agricultural management will minimise the chance of ragwort establishing itself. In amenity areas, highway verges, railway land and woodland, any activities causing disturbance to the soil and the loss of ground cover may increase the risk of ragwort establishment as it is a pioneer plant.
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 must 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. The implementation of a control strategy will ensure that persistent problems are dealt with in a timely manner.

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. The following three risk categories are provided as *guidelines* for assessing risk:

High Risk:

- Ragwort is present and flowering/seeding within 50m of land used for grazing by horses and other animals or land used for feed/forage production.

Medium Risk:

- Ragwort is present within 50m to 100m 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 100m from land used for grazing by horses and other animals or land used for feed/forage production.

18. The distances given above are guidelines *only* and 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, and vegetation cover of receiving land. Whether or not the density of ragwort is high or low, the risk factor will be determined by the likelihood of it spreading to land used for grazing and/or feed/forage production.

Action to be taken by Owners of Livestock

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. In particular they should:
- inspect grazing land regularly for ragwort (**see appendix 1** for identification hints and tips) when animals are present;
 - ensure pastures are maintained in good condition and are not under or overgrazed (**see appendix 2**);
 - remove ragwort plants where necessary using an appropriate control technique (**see appendix 3**) taking account of the status of the land (**see appendix 4**);
 - move stock to ragwort free land where practicable taking into account the experience of stockmen on the likelihood that particular animals will ingest ragwort (**see appendix 4**);
 - dispose of ragwort plants in an approved manner (**see appendix 5**);
 - follow safety guidelines (**see appendix 6**).

Action to be taken by Producers of Conserved Forage

20. Producers of conserved forage should:

- inspect land regularly for ragwort (**see appendix 1** for identification hints and tips) in the growing season;
- ensure managed grassland is maintained in good condition (**see appendix 2**);
- remove ragwort plants using an appropriate control technique (**see appendix 3**) taking account of the status of the land (**see appendix 4**);
- dispose of ragwort plants in an approved manner (**see appendix 5**);
- follow safety guidelines (**see appendix 6**).

Action to be taken by other Owners/Occupiers of Land

21. Owners/Occupiers should:

- identify land on which ragwort is present (**see appendix 1** for identification hints and tips);
- notify neighbouring land occupiers where there is a risk of ragwort poisoning;
- review the risk of spread to land used for grazing or conserved forage production on a six-monthly basis;
- ensure managed grassland is maintained in a good condition (**see appendix 2**);
- 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 technique (**see appendix 3**) taking account of the status of the land (**see appendix 4**).
- where a **medium risk** is identified:
 - establish a control policy to ensure that where a change from a medium to a high risk of spread can be anticipated, it is

identified and dealt with in a timely and effective manner using appropriate control techniques (**see appendix 3**) taking account of the status of the land (**see appendix 4**).

- where a **low risk** is identified:
 - no immediate action is required (**see paragraph 22**);
 - dispose of ragwort plants in an approved manner (**see appendix 5**);
- follow safety guidelines (**see appendix 6**);
- 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.

Control Methods

22. A summary of possible control methods are shown in **Table 1**. In most cases a single control method or single application will not be completely effective and consideration should be given to combining more than one control/management technique. Effective control may not be achieved in one season, particularly where there is a dense infestation, which has been inappropriately managed in the past. (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 techniques are considered in more detail in **appendix 3**.

Control Policies

23. Where a medium or high risk has been identified, owners/occupiers and managers of land (including private and public land, roads, waterways, railways, conservation areas, amenity areas and land awaiting development), should put in place and implement 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 a policy.
24. When considering what is practical, owners/occupiers/managers of land 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, the size and nature of the estate makes frequent inspections difficult. However, the relevant area managers should be encouraged to build up records of ragwort outbreaks using information gathered from site inspections, ad-hoc visits and public observations; to help formulate a strategy for targeted action with the initial focus on ragwort 'hot-spots' where the potential risk posed to grazing animals or forage production is assessed as being high. Where ragwort is present in areas that will cause a high risk (**see paragraph 17**) during the flowering/

seeding season, or a medium risk anticipated to become a high risk, there should be a presumption that action to manage the spread of ragwort will be necessary, even where the cost of control is potentially high.

25. A control policy should encourage 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**) 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 on a six monthly basis to ensure that the risk is reassessed should circumstances change.

Local control strategies

27. At local levels, it may be useful for those responsible for the management of the land or adjacent land, and those with a statutory or advisory remit for nature conservation and animal welfare, to get together to form a Local Ragwort Strategy Group. These groups may be particularly effective in areas where there is a conservation and wildlife interest and where ragwort management is a difficult issue. As well as considering the wider biodiversity interests being sustained by the ragwort, attention will need to be given to maintaining populations of native fauna which feed on the plant and which may assist in the control process. Such groups could agree a way forward on ragwort control which would be endorsed by all parties.
28. The UK Government have produced a range of guidance on the Weeds Act (**see appendix 8**), and these are also available online. Technical advice and advice on ragwort control is also available from many organisations (**see appendix 9**).

Advice

29. Advice may also be available from organisations which are responsible for the management of land in their ownership and/or control i.e. the Welsh Assembly Government Transport Directorate, Local Highways Authority, Network Rail, British Waterways, Countryside Council for Wales (CCW), Cadw (Welsh Historic Monuments), Forestry Commission (Wales), Ministry of Defence and Local Authorities (**see appendix 7**).

Enforcement

30. Efforts to control the spread of ragwort should be targeted at sites where there is a medium or high risk that spread will adversely affect horses and other grazing animals, the production of feed and forage or other agricultural activities.

Table 1. Summary of control methods

Method	Labour required	Cost	Prevention of flowering	Success of control - long term	Grazing removal period (days)	Treatments required per year	Repeat time scale (years)	Optimum time of treatment	Suitable for large areas	Suitable for high ragwort infestations	Remarks
Cutting	*	*	**	*	0(1)	1-2	1	F	***	***	Emergency treatment to prevent seeding. It is essential to cut before seed heads are mature & must be followed with a control technique.
Levering out	***	*	**	**	0(1)	1-2	1	F	*	*	Tools available for digging up plants. Best results when soil is wet. Very dependent on spotting plants; some may be missed requiring further treatment.
Herbicide citronella oil derived product (3)	***	***	***	***	7(2)	1-2	1	R or F	*	*	Very dependent on spotting plants, resulting in some being missed. Large plants may need respraying two weeks later. Will control broad-leaved plants.
Herbicide selective spraying (3)	*	**	***	***	21(2)	1-2	1	R	***	***	Most products will kill other broad-leaved plants sprayed.
Herbicide spot treatment (3)	***	**	***	***	21(2)	1-2	1	R or F	***	*	Very dependent on spotting plants, some may be missed requiring further treatment.
Herbicide weed wipes (3)	*	**	**	**	21(2)	1-2	1	F	***	***	Only tall ragwort plants will be affected.
Pulling by hand	***	*	***	**	0(1)	2	1	F	**	*	Gloves must be worn. Best results when soil is wet. Very dependent on spotting plants, some may be missed requiring further treatment.
Pulling by machine	*	**	***	**	0(1)	2	1	F	***	***	Selects plants for pulling on height difference & leaves shorter plants.
Biological	*	***	*	Unknown	Not suitable on grazing land	1	1	R or F	***	***	Biological control using the Cinnabar Moth is at the early stages of development in the UK.

Key: * Low ** Medium *** High: R – When rosettes start growing; F – early summer before flower heads mature;

(1) – Provided ragwort cuttings are removed; (2) These timings are only a guide – follow the manufacturer’s guidelines.

For further advice on grazing removal periods, refer to **paragraph 23** and **24** of **appendix 3**.

31. Control of ragwort is not only a requirement under the Weeds Act 1959 but is also a requirement under Cross Compliance, which is an EU requirement setting out standards that farmers have to meet in order to receive the Single Farm Payment. In these circumstances, action by the owner or occupier of the land would be enforced under the Weeds Act 1959. It could also be a breach of Cross Compliance which requires that land is kept in Good Agricultural and Environment Condition. The control of ragwort is dealt with in the category 'Under Grazing and Under Management'. Failure to take action may result in a notice being served under the Weeds Act 1959. Additionally, it would be regarded as an intentional breach of Cross Compliance and **YOU RISK LOSING SOME OR ALL OF YOUR PAYMENT.**
32. For land not covered under the Single Farm Payment scheme, enforcement actions can be taken under the Weeds Act 1959. 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, in an attempt to resolve the matter informally. If this approach fails, a complaint can be made to the Rural Inspectorate in Wales (complaint form attached **page 51**). Advice can also be obtained from the Plant Health & Biotechnology Branch of the Welsh Assembly Government (**see appendix 7**). Organisations that control or own land are listed in **Table 2**.

Table 2. Organisations that own and/or control land

Location	Owner/Occupier
Private & commercial property & land & private roads	Owner/Occupier
Agricultural land & land used for livestock other than animals kept for non-agricultural business or recreational purposes	Owner/Occupier
Motorways & Trunk Roads	WAG Transport Directorate or relevant Trunk Road Agency
All other public roads	Local Roads Authority
Railway land	Network Rail
Canals & Towpaths	British Waterways
Site of Special Scientific Interest (SSSI)	CCW/Owner/Occupier
National Nature Reserves	CCW/Owner/Occupier
Local Nature Reserves	Local Authority/Occupier
Common Areas/Common land	Local Authority/Owner/Occupier
Ministry of Defence land	Ministry of Defence
Development land	Owner/Occupier
Local Authority land	Local Authority
Private Woodland/Forestry	Owner/Occupier
Forestry (Forestry Commission Wales)	Forestry Commission Wales

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 of Practice, the Rural Inspectorate in Wales should be notified (**see appendix 7**).

Appendix 1 BIOLOGY AND IDENTIFICATION

Introduction



Photograph 1: Common ragwort flowering in August.

1. Common ragwort (*Senecio jacobaea*) is an erect plant usually 30-90cm high, but may exceed 100cm. The stems are tough and often tinged purple-red near the base, but brighter green and branched above the middle. A rosette of basal leaves usually dies before flowering but the stem leaves persist. They 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 head of densely packed bright yellow flowers. The seeds are borne singly and have a downy appendage (similar to dandelion seeds) making them readily dispersible, and able to fly easily in the wind. Once in the soil the seeds can lie dormant for several years before germinating.

2. Common ragwort is normally a biennial plant with a basal rosette in the first year, and a tall flowering stem in its second year. However, if flowering is suppressed by annual cutting it can behave as a short-lived perennial (**see paragraph 3**). Ragwort will usually establish a rosette of basal leaves during its first year of growth and will overwinter in this way (**see photograph 2** for typical variability in appearance). During the second year the rosette sends up a single leafy stem, up to one metre in height, which is unbranched and produces numerous flower heads at the top (**see photograph 1**). Flowering usually occurs from June until late October after which the plant dies. Occasionally, plants can be seen flowering in winter and early spring.



Photograph 2: The variability of ragwort basal rosettes.

3. Common ragwort can also behave as a perennial (flowering every year) after damage to the crown such as cutting, grazing, hoof damage, damage by machinery and following incomplete/ineffective hand pulling in dry weather. It

can also remain in the rosette stage for several years as on amenity grassland where intensive cutting regimes are usual practice.

Distribution



Photograph 3: High density of ragwort on unmanaged land.

4. Common ragwort is widespread throughout the UK and can be found on wasteland, development land, meadows, pastures, sand dunes, roadside verges, railway land, amenity land, conservation areas, set-aside, woodland and grazing land. Poor quality and poorly managed horse pastures are particularly susceptible to high densities of ragwort.

Habitat

1. Common ragwort can be found over a large range of soil types (although it prefers freely-drained soils), climatic conditions, and can be characteristic of badly managed grasslands, where trampling breaks the sward, where patches of turf have died in drought, or in areas of over/under grazing. However, well-managed, dry, acid or calcareous grasslands may naturally contain ragwort. Disturbances to grass verges, embankments, woodland areas leading to open soil, as well as sand-dunes, are most favourable conditions for seedling establishment as it is a pioneer plant.

Other Species of Ragwort

2. Whilst only the more frequently found Common ragwort is subject to the provisions of the Weeds Act, there are other members of the same native species genus which may cause some identification problems:
 - a. **Hoary ragwort** (*Senecio erucifolius*) occurs mainly on roadsides, semi-natural meadows and field boundaries.
 - b. **Oxford ragwort** (*Senecio squalidus*) grows widely on roadsides, railway land, old walls and unmanaged land.
 - c. **Broad-leaved ragwort** (*Senecio fluviatilis*) is similar to Fen Ragwort and is found in fens and by streams.
 - d. **Common groundsel** (*Senecio vulgaris*) is abundant on arable land and wasteland.
 - e. **Narrow leaved ragwort** (*Senecio inaequidens*) is a new alien arrival, looking like a large woody groundsel and recently establishing on local waste ground. Possibly starting to spread.
 - f. **Silver ragwort** (*Senecio cineraria*) is a garden escape occurring on sea cliffs, beaches and wasteland.

- g. **Sticky groundsel** (*Senecio viscosus*) is locally common on beaches, wastelands and railways.



Photograph 4: Marsh ragwort growing in a wet habitat with rushes.

- h. **Marsh ragwort** (*Senecio aquaticus*) is locally abundant in wet areas of fields, ditches, riverbanks and marshes often with an unkempt appearance. The flowers which emerge in June, July and August are larger and much less densely clustered than those of common ragwort. A further distinguishing feature is the rounded ends to the leaves.

Rare Ragwort Species

3. **Welsh ragwort** (*Senecio cambrensis*) (also sometimes known as Welsh groundsel) is currently restricted entirely to North Wales. It is a recently evolved plant which arose suddenly as a result of hybridization between two related species.

Fen ragwort (*Senecio paludosus*) is a very rare British native, previously extinct but re-introduced in fen sites in England. It is protected under the Wildlife & Countryside Act 1981.

Ragwort look-alike plants

4. There are some other plant species which may look like Common ragwort::



Photograph 5: Tansy.

Tansy (*Tanacetum vulgare*) is a perennial found widely in hedgerows and waste places, reaching a height of 60-100cm. It has erect, angular, leafy stems, with alternate leaves which are much cut into. Flowering occurs in August and September and has heads of round, flat, dull yellow flowers which grow in clusters and have a peculiar odour.

Yellow Loosestrife (*Lysimachia vulgaris*)

is a creeping perennial which can grow up to 100cm, and forms large dense patches in moist areas such as ditches, marshes, roadsides, stream banks, pond margins and open woodland. The bright yellow flowers are bunched together in terminal spikes.



Photograph 7: St John's Wort.



Photograph 6: Yellow Loosestrife.

St John's Wort (*Hypericum maculatum*) is an erect perennial that grows 25-50cm tall, often with black glands on the leaves and petals. It is usually found in grassy moist places, such as hedgerows and wet meadows. The bright yellow flowers emerge from June through to September.

Goldenrod (*Solidago virgaurea*) is easily recognised by its golden yellow flower heads forming tight cylindrical panicles in late summer/ early autumn. It has slender stems, with alternate linear to lanceolate leaves, and grows between 60 -100cm high.



Photograph 8: Goldenrod.



Photograph 9: Hawkweed spp.

Hawkweed spp. (*Hieracium* spp.) are creeping perennials with fibrous roots, creeping stolons, milky sap and showy yellow dandelion-like flowers. Found mainly on fields, pastures and meadows, roadsides and disturbed areas.

Also:

- Common Cat's Ear (*Hypochaeris radicata*)
- Common Fleabane (*Pulicaria dysenterica*)
- Field Fleawort (*Tephrosia integrifolia*)
- Heath Groundsel (*Senecio sylvaticus*)
- Smooth Hawk's Beard (*Crepis capillaris*)

Appendix 2

GRASSLAND MANAGEMENT

Pastures

1. Pasture management plays a crucial role in preventing the establishment and spread of ragwort. It is not possible in guidance of this nature to provide comprehensive information on pasture management. Best practice varies according to specific circumstances, e.g. in relation to managed grassland or unimproved semi-natural grassland.
2. Horses are very selective grazers and will eat down some areas until they are almost bare. Coarser grasses can dominate, particularly in those areas where horses dung or urinate, and the grass is left to seed creating a very uneven sward. Bare patches can develop resulting in ideal conditions for the establishment of ragwort. Horse pastures in particular must be very carefully managed to prevent this. Leaving horses out in wet winter conditions can exacerbate the situation causing the ground to become poached (i.e. churning up of land by animals), damaging the grass sward and providing an opportunity for ragwort to establish in the bare ground.
3. To maintain horse pasture in good condition:
 - stocking densities should be appropriate to the size of grazing area and available herbage;
 - dung should be collected and removed or spread regularly;
 - plants poisonous to livestock should not be allowed to proliferate;
 - prevent poaching by keeping horses off fields in wet conditions, wherever practicable and maintain drainage;
 - remove any stale, dry fodder such as hay.
4. Agriculturally improved grassland should be managed to achieve a dense ground cover of grasses.
 - Nutrient and pH levels should be maintained through the appropriate application of fertilisers and lime (application rates should be determined by a soil analysis);
 - Appropriate stocking levels should be maintained to avoid under and overgrazing;
 - Where pastures deteriorate to such an extent that other methods do little to improve the sward cover, renovation through reseeding may be necessary;
 - Poaching should be minimised to prevent sward damage.

5. Where grassland is being managed for its ecological value, but is also being used for grazing, different constraints will apply. Here it will be necessary to keep the population of weeds designated under the Weeds Act to a minimum level consistent with the ecological requirements of the site, the species of conservation significance living there, and the welfare of the grazing animals.

Semi-natural and uncultivated areas

6. Wherever possible uncultivated land with low levels of ragwort should remain undisturbed. Where an open sward is maintained and ragwort can be expected to be a natural component of grassland, other control methods might be necessary to prevent ragwort becoming a problem.
7. Anyone intending to use uncultivated or semi-natural land for intensive farming purposes should find out whether they need to make an application under the Environmental Impact Assessment (uncultivated land and semi-natural areas) Regulations 2007². Land types covered include unimproved grassland, heathland, moorland, scrubland and wetlands. Agricultural intensification may include cultivation, soil spreading, drainage, reclamation, increased application of fertilisers or pesticides, and increased grazing by livestock. Anyone planning such work should contact the Environmental Impact Assessment helpline (**see Appendix 7**).

² The Environmental Impact Assessment (EIA) (Agriculture) (Wales) Regulations 2007.

Appendix 3

CONTROL TECHNIQUES

Introduction

1. Where the risk that ragwort will spread is such that control action is required or where ragwort is present on grazing land/land used for the preparation of conserved forage, three primary control methods are available:
 - cultural
 - chemical
 - biological
2. Each method can be employed in a number of ways depending on the location, the population density, and the extent of control required. In many cases effective control will only be possible if a combination of methods is employed. Repeat treatment over several seasons may also be required to deal with long established populations of ragwort. The decision tree in **Figure 1** will assist with selecting the most appropriate method of control.
3. On managed grassland or other pasture, land management techniques have an important role to play in controlling the spread of ragwort by preventing its establishment (**see appendix 2**).
4. All grazing animals are susceptible to the toxic effects of ragwort and therefore the deliberate control of ragwort by grazing horses, sheep, goats or other livestock is not recommended on animal welfare grounds.

Cultural Control Techniques

5. Several cultural methods can be used to prevent the spread of ragwort including the general avoidance of bare ground areas, pulling/levering, cutting, and the use of burners. **Figure 2** will assist with selecting the most appropriate method of cultural control.

Avoiding bare ground

6. Bare ground areas resulting from heavy poaching and/or overstocking are to be avoided where at all possible. This can be achieved by removing animals from ground to prevent poaching (i.e. churning up of land by animals) of land in wet weather conditions, particularly December to March, and by avoiding over grazing of land at other times. Control of rabbit populations may also be necessary to maintain ground cover.

Pulling and levering

7. Pulling or levering up plants can prevent seed spread and can give long-term control, although any root fragments not removed can produce weak growth. Hand pulling is appropriate for smaller areas but for larger areas the use of

machine pulling should be considered. Machine pulling requires a height difference between the ragwort and other plants and is only suitable on certain soil types and topographies. Various hand tools are available for levering. Best results are achieved when the soil is damp and before ragwort has seeded.

8. Ragwort is an injurious (harmful) weed and consequently all operatives involved in handling the plant must have received the appropriate instruction for the task and must be supplied with the appropriate type of personal protective equipment (**see appendix 6**).
9. A combination of manual/mechanical pulling or levering and reducing disturbance to soil can be effective against ragwort if repeated over a number of years, without having to resort to herbicide use. Ragwort which has been either manually or mechanically pulled or levered should be disposed of safely (**see appendix 5**) to prevent re-seeding.

Cutting

10. Cutting is a control method of last resort and should only be used to reduce seed production and dispersal where other more effective control methods cannot be used. Cutting stimulates growth and plants subsequently re-flower later in the season. Cutting and stem removal at the early flowering stage reduces seed production but does not destroy the plant, turning it from a biennial into a perennial habit and therefore repeat treatments will be required to prevent the ragwort from seeding.
11. Cut plants left lying in the field are a serious risk to grazing animals, as they remain toxic, are more likely to be eaten as they lose their bitter taste, and may still set seed. Plants must be removed and safely disposed of (**see appendix 5**) before returning grazing animals to the field.

Burners

12. Spot burners (hand held flame guns) can be used for plants at the rosette stage. Success can be variable; ranging from 93% kill of ragwort seeding plants to rapid re-growth occurring. Consideration will need to be given to the potential damage that may be done to surrounding vegetation and the risks of fire. Operator safety will also need to be considered carefully. In most circumstances the use of spot burners is unlikely to be suitable except on hard surfaces and paved areas. Where the use of spot burners is a preferred method of control, a suitable and sufficient risk assessment must be undertaken prior to use.

Figure 1. Decision Tree to Assist Selecting the Most Appropriate Control Method

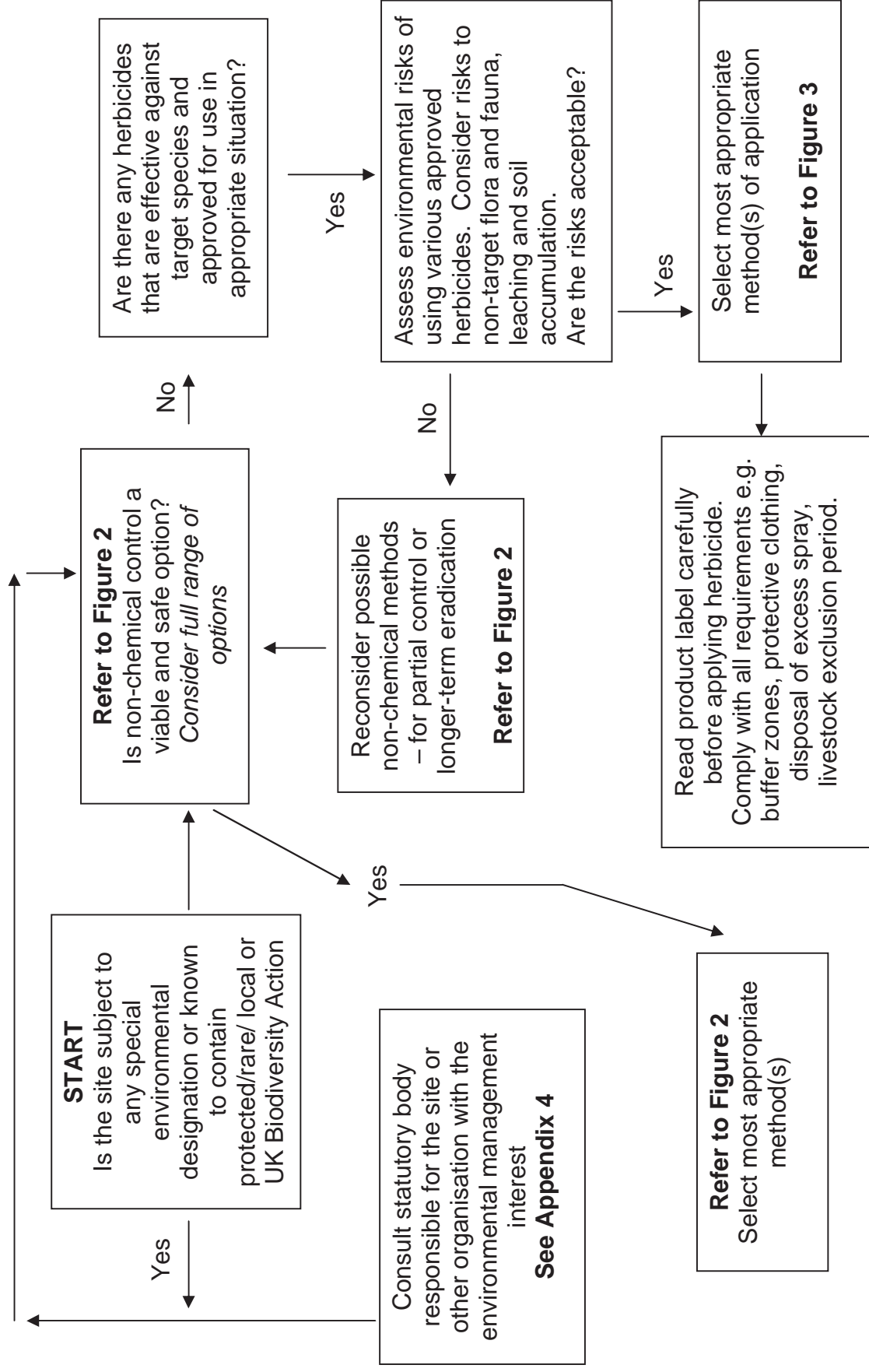
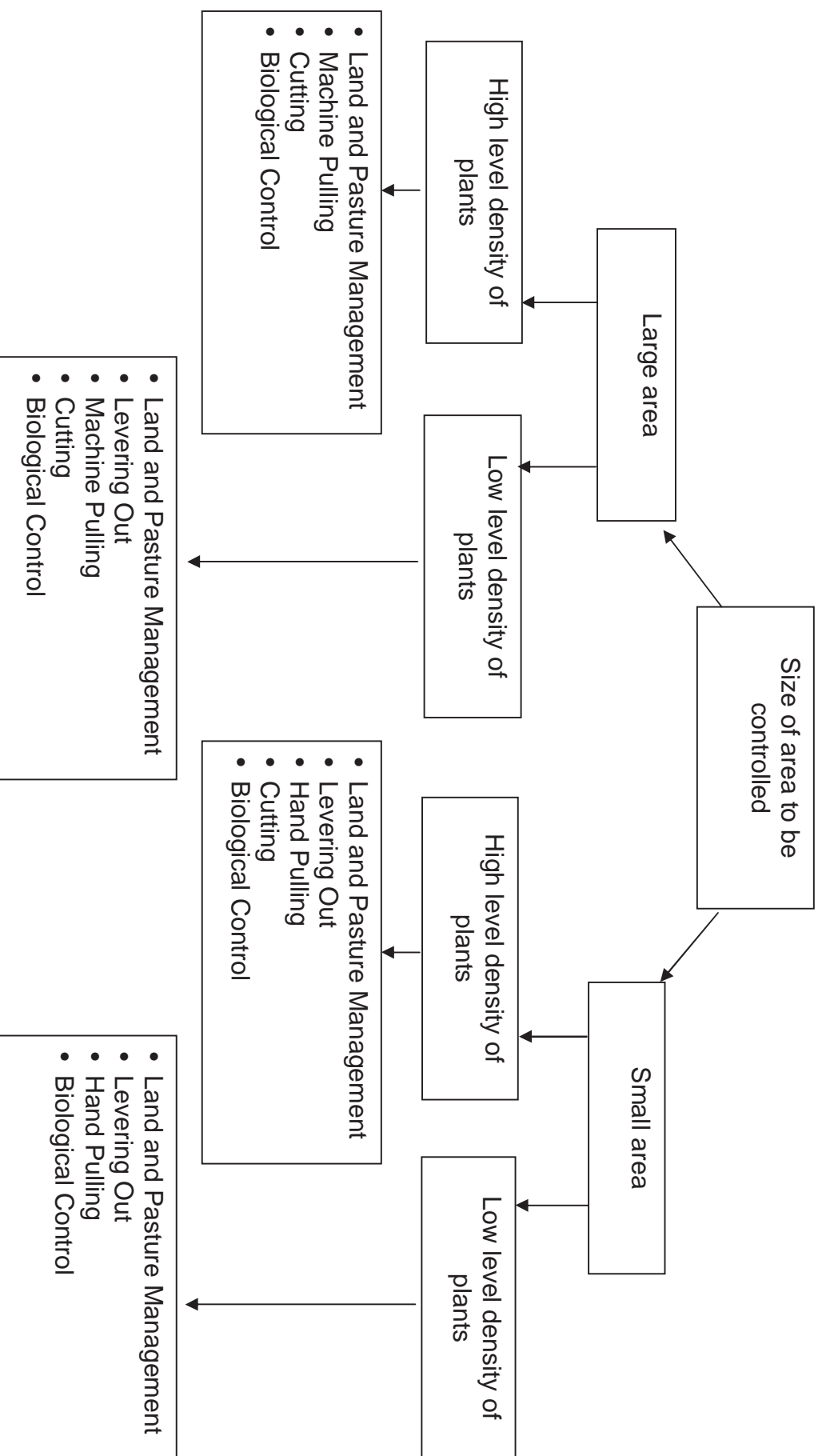


Figure 2. Selecting the Most Appropriate Cultural and Biological Control According to Size of Area and Level of Density of Plants



Chemical Control Techniques

Use of herbicides

13. Herbicides must only be used after a risk assessment has been completed. This must include consideration of any potential effects on the environment and on human and animal health. Where a herbicide cannot be used safely an alternative control method should be used. Risk assessments should also consider the likely ecological impacts of taking no action, which can sometimes outweigh any negative effects of a herbicide treatment. Widespread spraying with herbicide is not recommended. Use of herbicide should be a last resort and carefully targeted.
14. Herbicides can be a time-efficient and effective method of preventing the spread of ragwort. Total control cannot be guaranteed with one application. However, an annual chemical control programme will generally prevent the spread of ragwort.
15. Only herbicides and uses approved under the Control of Pesticides Regulations 1986 (as amended) or the Plant Protection Products Regulation can legally be sold, supplied, stored, advertised and used. Current lists of approved products can be found on the Chemicals Regulation Directorate (CRD) website at www.pesticides.gov.uk. All herbicides must have an appropriate standard or Specific Off Label Approval (SOLA) for use in a relevant situation. It is important to keep records of any herbicide used.
16. Always read the product label before using a herbicide and comply with all statutory conditions. Where a herbicide is to be applied under the terms of an off-label approval, users must obtain and read the relevant Notice of Approval (published by CRD). Users should be aware that pesticides used under an off label approval are done so at the user's own risk and may not be as effective.
17. Because herbicides are not equally effective at all stages of plant growth, repeated treatments at different times of year are recommended for optimum control. However, the time of year that a herbicide is applied might be constrained by legal requirements stipulated on the product label. Decisions should take into account the efficacy of the herbicide against the target species (e.g. many herbicides are more effective when applied to actively growing weeds) and any probable impacts of different timings on other non-target species at that site.
18. In deciding which chemical to use, it will be helpful to refer to the Environmental Information sheets that are being produced for all pesticide products under the Voluntary Initiative, a programme of measures agreed by the pesticide industry with Government to minimise the environmental impact of pesticides. Further details can be found on the Voluntary Initiative website: www.voluntaryinitiative.org.uk.

Legal restrictions

19. The Code of Practice for Using Plant Protection Products (produced by DEFRA in 2006 on behalf of England and Wales) is for all professional users of plant protection products in England and Wales in respect of Part III of the Food and Environment Protection Act (FEPA) 1985, and the regulations controlling pesticides, particularly plant protection products, under that part of the Act. The Code of Practice for Suppliers of Pesticides to Agriculture, Horticulture and Forestry (also known as the Yellow Code) gives practical guidance on the storage and transport of pesticides and the obligations on those who sell, supply and store for sale and supply. Both are available from Defra publications (**see Appendix 8**) or online at the CRD website (www.pesticides.gov.uk).
20. The Control of Substances Hazardous to Health (COSHH) Regulations 2002 require that pesticides (including herbicides) should only be used where necessary, and where the benefits significantly outweigh the risks to human health and the environment. Non-chemical control options must therefore be considered and herbicides should only be used in situations where alternatives do not exist, or are impractical or likely to be inadequate. (Further information on COSHH is available on the Health and Safety Executive website at www.hse.gov.uk).

Training and certification of spray operators

21. Spraying should only be carried out by a competent person who is suitably trained and qualified; and in accordance with the pesticides and health and safety legislation. No person who was born later than 31 December 1964 can use a pesticide approved for agricultural use - unless that person has obtained a recognised Certificate of Competence. Irrespective of their age, all persons who use pesticides as part of a commercial service (i.e. as a contractor on land not in the ownership or occupation of the contractor) must hold a Certificate of Competence, or work under the direct personal supervision of a person who holds such a certificate. Surplus chemicals must be disposed of according to the Code of Practice for using Plant Protection Products and the legislation in force in Wales and England (**see appendix 8**).

Restrictions on use of pesticides in or near water

22. Regulations made under the Food and Environment Protection Act 1985 control the use of herbicides/pesticides where pollution of water might occur. Further guidance on preventing contamination of surface water and groundwater can be found in the Code of Practice for using Plant Protection Products (**see appendix 8**), and shortly in the Code of Practice for Air, Soil and Water which is currently in the process of being produced by the Welsh Assembly Government.

Livestock

23. Any period of time when animals need to be kept away from the treated area will be specified on the product label. Make sure you follow this instruction.

24. Some poisonous weeds, such as ragwort, can become more attractive to grazing animals after they have been treated with herbicides. It is important to keep horses and livestock out of treated areas until the weeds have died and completely disappeared, whether or not the product label of the herbicide used says that livestock have to be kept off the land for a set period.

Environmental restrictions

25. The use of herbicides to control ragwort will affect other plant species within the treated area. Areas protected by legislation, e.g. Sites of Special Scientific Interest (SSSIs), Natura 2000 sites, and agri-environment schemes, also restrict the use of certain chemicals and the relevant authority should be consulted prior to operations (**see appendix 4**).

Methods of application

26. Efficacy and environmental safety are directly affected by the method of application, which must comply with statutory requirements and the specific conditions of approval set for the pesticide concerned. Effective targeting of herbicides is important, particularly when non-selective herbicides are used. Non-selective, translocated herbicides present the highest risk to non-target plants. The type of herbicide used and the method of application will be influenced by:

- the extent, distribution and location of the target species;
- height and structure of the target species;
- height, structure and sensitivity of surrounding/adjacent non-target species;
- approval and label requirements.

27. Weed-wipers provide a method for the targeted treatment of weeds that are taller (at least 10 cm taller) than the associated non-target vegetation. Weed-wipers are available for different scales of operation: from small hand-held wipers to large tractor-mounted equipment.

28. The most widely used type of hand-held sprayer is the knapsack sprayer, which is suitable for spot-treatment of ragwort on small areas and on very rough or steep terrain. Sprayers mounted on tractors or all terrain vehicles (e.g quad bikes) may be more suitable for larger areas of relatively even ground but are, by their nature, more indiscriminate in coverage than hand-held sprayers and may not be appropriate for all situations.

Environmental Safety

29. An evaluation of environmental risks is essential wherever herbicides/pesticides are used and should always consider both short and

long-term, local and remote effects, impacts on animals as well as plants, and possible indirect effects (e.g. through destruction of nesting sites, deoxygenation of ponds caused by organisms decomposing or dead vegetation).

30. To minimise the effects of herbicides on non-target species.

- use a weed wiper or spot treatment wherever practicable;
- spot treat, if possible, and use a guard on the sprayer lance to more effectively target sprays and reduce drift;
- use a selective herbicide that is less damaging to non-target species;
- leave an unsprayed buffer zone between treated and vulnerable species/habitats;
- avoid fine sprays, use medium-coarse droplet nozzles;
- keep spray nozzles as close as possible to target plants;
- consider use of low drift nozzles;
- avoid spraying in unsuitable weather, e.g. when wind speed is greater than Beaufort Force 2 or on very calm, warm days.

31. **Figure 3** will assist with selecting the most appropriate method of chemical control.

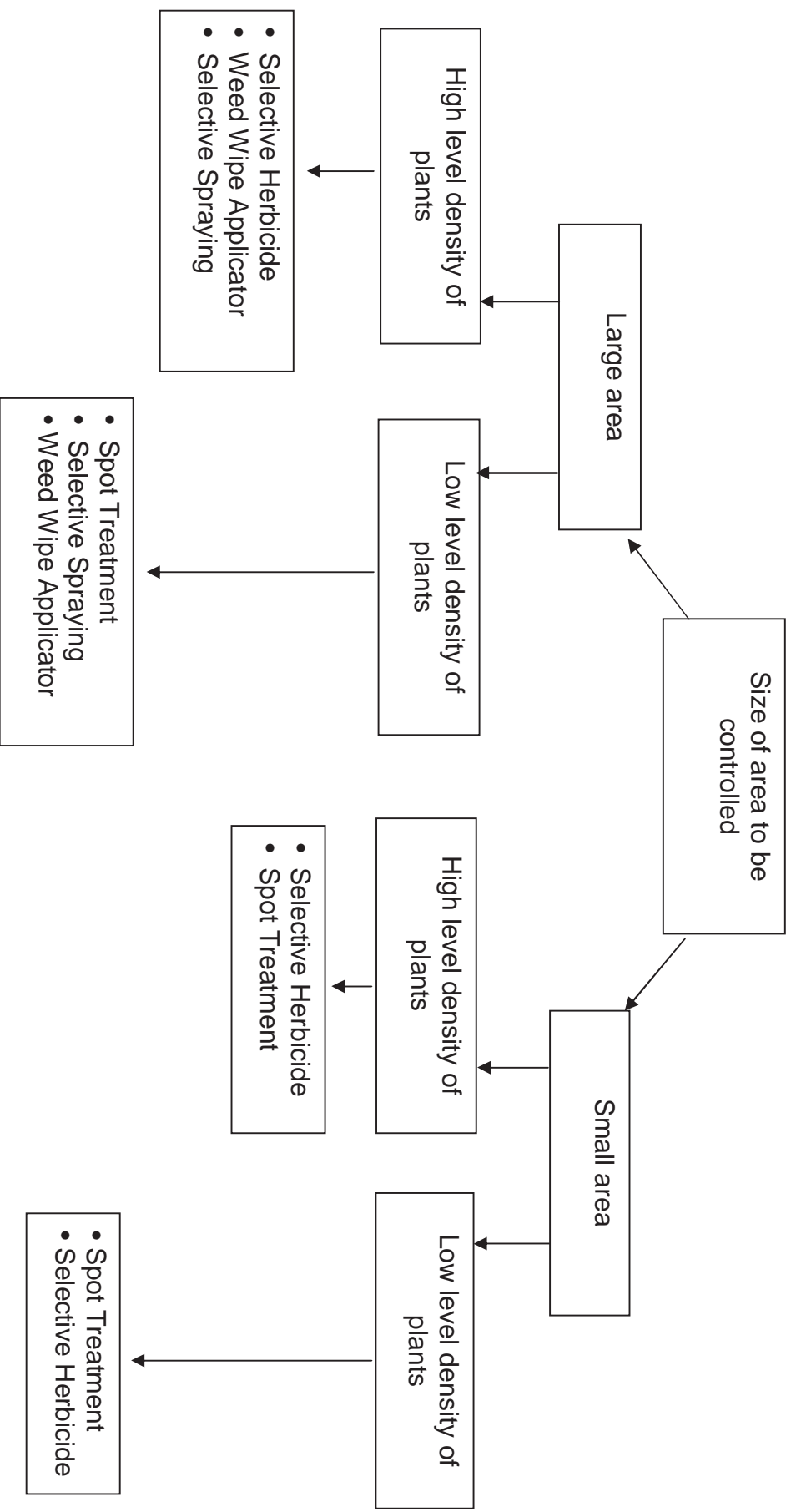
Biological Control Techniques

32. Biological control is aimed at controlling ragwort by using the plant's natural enemies to lower its density, thereby suppressing ragwort populations and allowing other plants to re-establish. Many species feed on ragwort including; cinnabar moth (*Tyria jacobaea*), ragwort flea beetle (*Longitarsus jacobaea*) and ragwort seedfly (*Pegophylemia seneciella*). High densities or 'plague levels' of cinnabar moths in particular, can destroy complete ragwort populations. However the natural spread of these species might not always be as wide-ranging as that of ragwort. Other potential biological control agents include several fungal pathogens (rust diseases) but none of these significantly reduce ragwort populations.

33. The introduction of a biological control agent has a potential advantage in areas where chemical/mechanical control is unachievable or undesirable. However, it can be difficult to maintain sufficient predator populations to provide adequate control and may only result in a reduction rather than a control of spread. Biological control is therefore best used as part of a long-term strategy. **Biological control by cinnabar moths is not suitable for the control of ragwort on grazing land or land used for forage production.** Approval is required from the Countryside Council for Wales (CCW) before

this technique is used within SSSIs, Natura 2000 Sites and other areas protected by environmental or ecological designation.

Figure 3. Decision Tree to Assist Selecting the Most Appropriate Herbicide Treatment to Size of Area and Level of Density of Plants



Appendix 4

PARTICULAR CATEGORIES OF LAND

Introduction

1. Where land has a special designation and attracts support payments which place conditions on the way the land is managed, or has a specific biodiversity wildlife interest, no action to prevent the spread of ragwort should be taken without the approval of the relevant authority. In the case where an area of land falls within more than one category, broad liaison will be necessary and all the relevant considerations need to be taken into account.

Set-aside

2. Land set-aside from agricultural production is a potential source of ragwort and is subject to the provisions of the Weeds Act in the same way as other land. Action may be taken to control ragwort at any time by means of pulling, cutting, spot burning or herbicide.

Organic farming

3. Where land is farmed organically there will be limitations on the control options that can be used. If in any doubt about the standards covering this area farmers should contact their Certification Body. Further advice on practical measures should be obtained from suitably experienced organic consultants.

Agri-environment schemes

4. Agri-environment schemes include Tir Gofal, Tir Cynnal, the Environmentally Sensitive Areas Scheme, other remnant environmental schemes as well as the forthcoming Glastir scheme. Although individual agreements may limit the options for control, control should not be ruled out. Guidance is available from the Rural Payments Divisional Offices (**see appendix 7**).
5. Injurious weeds are not only considered to be a potentially serious threat to agricultural production but, if allowed to spread into areas of conservation interest, may reduce the diversity of species within these sites and cause a deterioration in the value of the landscape.

National Nature Reserves, SSSIs, Natura 2000 and other statutorily and non-statutorily designated natural heritage sites

6. Several species of ragwort and closely related species occur as native plants on many statutorily designated natural heritage sites such as National Nature Reserves (NNRs), SSSIs, and Natura 2000 sites (including sites that support Red Data Book Listed, Nationally Scarce or Biodiversity Action Plan Priority species), Some species of ragwort are rare. Where management of plant life is crucial to the ecology of designated sites, weed control, including the

control of ragwort, may be potentially damaging to the nature conservation interests of the site. In such situations, the Countryside Council for Wales (CCW) must be contacted for further information before proceeding (**see appendix 7**).

7. It is recommended that the approach adopted in the above paragraph should generally apply to non-statutorily designated wildlife sites.

Scheduled monuments

8. Control on or removal from land that is protected as a Scheduled Monument under the Ancient Monuments and Archaeological Areas Act 1979 may also require Scheduled Monument Consent. In such situations, Cadw (Welsh Historic Monuments) must be consulted and advice sought as to the most appropriate method of control (**see appendix 7**).

Common land and common grazing

9. Common land and common grazing can sometimes be populated by a number of species including ragwort. Where ragwort is identified as putting at risk animals grazing on the common or neighbouring land used for grazing and/or feed/forage production, it must be controlled. Responsibility for control lies with the registered owner of the land, grazing committee and/or occupier of the land. As common land and common grazing may also be subject to environmental designation, it may be helpful to refer to **paragraph 6** of this appendix.

Other land used for grazing

10. On land used for grazing horses and other animals, control of ragwort is the responsibility of the occupier (owner or tenant) of the land. The presence of ragwort within a grazing area can pose a high risk to grazing stock, particularly horses, which are highly susceptible to the toxic effects of ingested ragwort.
11. Particular attention must be given to the presence of ragwort seedlings which are less visible than the rosette stage and more likely to be eaten. Where ragwort is identified as posing a high risk to animals, suitable control measures should be taken or animals removed from the source of risk.

Forage production

12. Grassland conserved for forage production including hay, haylage, silage and crops grown for dried grass can contain ragwort. Ragwort cannot easily or readily be detected once dried. It remains highly toxic and cannot be easily discarded. In its dried form it is more likely to be eaten and poses a higher risk of poisoning to the animal than in the grazing situation. Where ragwort is identified in fields used for feed/forage production suitable control measures must be taken.

13. Any feed or forage that contains ragwort is unsafe to feed to horses and other animals and must be declared 'unfit' as animal feed and be disposed of safely. The Agriculture Act 1970 and the Feeding Stuffs Regulations 2000 govern the sale of animal feed and forage. Regulation 14 makes it an offence to sell any material for use as a feeding stuff that is found, or discovered as a result of analysis, to be unwholesome for or dangerous to any farmed animal, companion animal or human being. Trading Standards should be notified if feedstuffs are found to contain ragwort as an offence may have been committed.

Amenity grassland

14. Amenity grassland, which includes sports grounds, playing fields, village greens and grassed areas around buildings and gardens, are usually intensively managed and would normally pose a low risk of ragwort spreading to grazing land and land used for feed/forage production. However, where land is less intensively managed it can pose a risk if ragwort is allowed to proliferate in areas not frequently cut and/or on the perimeter of the amenity area. In such situations where ragwort poses a high risk of contaminating neighbouring land used for grazing and/or feed/forage production, then effective control measures must be taken to prevent the spread of ragwort. Control methods should take into account public access and safety, and a suitably sufficient risk assessment must be undertaken prior to control.

Highways

15. Ragwort is frequently found growing by the side of roads; whether motorways, trunk roads, other public roads or private roads. It can pose a serious risk of spreading to grazing land and land used for feed/forage production within the locality. Where ragwort is present on roadside verges and the spread of ragwort poses a high risk to adjacent grazing animals and/or feed/forage production, it must be controlled. The nature of a road corridor is such that it can often act as a conduit for the spread of ragwort, regardless of whether the seed source originated within or outwith the road boundary.
16. The control of roadside vegetation including ragwort is the responsibility of the Welsh Assembly Government Transport Directorate in the case of motorways and trunk roads, and the relevant Local Authority in respect of all other public roads (**see appendix 7**). Private roads are the responsibility of whoever owns them. Control of ragwort within the boundary of public roads should only be undertaken by appropriately trained and qualified persons. Such persons must have had access to the relevant safety and environmental information to ensure that their specialist work does not compromise the safety of road users or contravene environmental legislation.
17. Particular problems may arise where road improvements or other disturbances of the road verge have occurred and bare ground is exposed. Where practicable, the existing grass sward can be removed and properly stored before being replaced when the works have been completed, resulting in much less bare ground for ragwort to colonise. Seeding measures should

be followed up by several mowings during the first year, promoting the growth of the desired vegetative sward and reducing the growth of ragwort.

Railways

18. Ragwort can be found growing by the side of railway lines and, due to the size and broad spread of the railway network, can pose a risk of contaminating adjacent grazing land and land used for feed/forage production within the locality. Similarly, the number of neighbours surrounding the 30,000 hectare network means that ragwort will undoubtedly spread on to railway property.
19. The control of vegetation on railway land, including the control of ragwort, is the responsibility of Network Rail and is undertaken to ensure the risks posed to trains, railway personnel and the travelling public are reduced to as low as is reasonably practicable. Ragwort is controlled on a reactive basis; dealing with incidents on a site-specific basis. Weed control on private railway land is the responsibility of whoever owns the land.
20. Where ragwort is present on railway land and the spread of ragwort poses a high risk to grazing animals and/or feed/forage production it must be controlled. The work is often co-ordinated with other activities in order to avoid excessive costs and inconvenience to passengers. Due to the potential high risk to personnel working adjacent to railway lines, Network Rail have very strict Health and Safety procedures in place. All operatives must conform to these procedures, to ensure their own safety as well as the safe running of the railway. This may require temporary track closures or other forms of phased working linked with reduced services. Personnel involved must also ensure they do not contravene environmental legislation in the course of undertaking weed clearance works. If there are concerns about ragwort on railway land the first action should be for discussions to be held with Network Rail in order to determine what would be a reasonable period of time for clearance work to be carried out, before making a complaint to the Rural Inspectorate in Wales.

Aquatic areas

21. Land immediately adjacent to water (this includes rivers, streams, brooks, canals, side ponds/side canals, ponds and reservoirs) can be a source of ragwort, in particular **Marsh ragwort** (*Senecio aquaticus*) which flourishes in damp conditions. Where common ragwort is present on land adjacent to waterways and where its spread poses a high risk to grazing animals including the spread of seeds downstream, and/or feed/forage production, it must be controlled. The Food and Environment Protection Act 1985 places a special obligation on all pesticide users to prevent pollution of water. The Environment Agency must be notified prior to use of approved herbicides/pesticides in or near water. Downstream and other adjacent riparian owners should also be consulted when pesticides are applied near water.

Woodland and forestry

22. Ragwort in woodland and forestry generally represents a low risk to grazing animals and to feed and forage production. Where ragwort is present and the spread of ragwort poses a high risk to grazing animals and/or feed/forage production then it must be controlled.

Development areas, waste ground, derelict land, and land used for mineral extraction

23. This category includes brown-field sites awaiting development, abandoned land, and land not utilised or managed surrounding development areas. Welsh ragwort (*Senecio cambrensis*), also sometimes referred to as Welsh groundsel (found in a couple of areas of North Wales) is a species of waste ground and waysides. Land within the urban environment generally represents a low risk to grazing animals and to feed and forage production. Where ragwort is present on development, waste and neglected land, and the spread of ragwort poses a high risk to grazing animals and/or feed/forage production, then it must be controlled. It is expected that owners, occupiers and managers of such land will have in place policies for the identification, monitoring and control of ragwort on land for which they are responsible. In some circumstances, this type of land can have benefits for biodiversity and this should be borne in mind when developing a control policy.

Defence land

24. The Defence Estates (an Executive Agency of the Ministry of Defence) administer the defence estate and are responsible for ensuring that the appropriate standards of weed control are maintained on defence land under its jurisdiction. Where ragwort is present on defence land and there is a high risk that it may spread to neighbouring land used for grazing and/or feed/forage production, the Ministry of Defence will take measures to control the ragwort and reduce the risk of it spreading. Some Ministry of Defence land has conservation status and requires grazing. In these circumstances, where a low risk to animal welfare has been assessed (**see paragraph 6 of this appendix**), animals may graze defence land where ragwort is present. The Ministry of Defence will take action to reduce this risk if it becomes medium or high risk. The Ministry of Defence will not control ragwort where there is unexploded ordnance present.

Bridleways

25. Ragwort should be controlled on bridleways where the bridleway runs across grazing land or land used for forage production and where grazing animals may be at risk. Where there is no risk, it should not be necessary to control ragwort simply because horses will be ridden along the bridleway. It is the rider's responsibility to ensure that a horse when ridden or led on a bridleway does not ingest ragwort.

Appendix 5 DISPOSAL

Introduction

1. The safe and effective disposal of ragwort is an important part of ragwort control. Disposing of ragwort responsibly reduces the risk of further spread by seed dispersal and re-growth from root sections. **Early and effective control of ragwort will minimise the problems of disposal.**

Disposal options

2. The options for disposal will depend on the amount of ragwort to be disposed of, the type of site, and local resources available. Whenever practicable, ragwort should be disposed of on site. This will reduce the inadvertent spreading of seeds during transport. Options for disposal include rotting down, composting, incineration, controlled burning and landfill. The decision tree shown in **Figure 4** helps to select the most appropriate disposal option.

Legal framework

3. Regulations for agricultural waste³ mean that unwanted agricultural waste (this includes ragwort from all farmland, or from land used for keeping horses and ponies) now comes within the definition of commercial waste.
4. Environmental permits regulate waste disposal sites under the Environmental Permitting Regulations 2007. The permits are issued by the Environment Agency (**see appendix 7**) and work to ensure that the authorised activities do not cause harm to the environment or endanger human health.

Transporting Ragwort

5. Ragwort is able to set seed even after being pulled, dug or cut and therefore there is a high risk of seed dispersal to neighbouring land during transportation. To avoid seed dispersal ragwort **should only** be transported in sealed bags or enclosed containers. Where the plants are bulky, they can be cut up to assist packing. To avoid unnecessary seed dispersal, seed heads should be cut off first and packed.

Rotting down (biodegrading) using a compost bin

6. For disposing of small quantities of ragwort on site due to the limited capacity of standard compost bins. The compost bin should be located away from any ditch, watercourse, or area where animals may have access to it. The ground should be levelled where the compost bin is sited; the earth should be loosened so that earthworms, insects and micro-organisms can move into the material, and any liquid can drain and disperse to the soil.

³ The Waste Management (England and Wales) Regulations 2006.

7. This is only suitable for small-scale disposal, and ragwort specific compost bins should be made available.
8. If the material is collected in plastic sacks, these must be emptied into the compost bin directly. If paper sacks are used, these could be loaded into the compost bin and should be sliced and consolidated to increase the rate of biodegradation. The residues should be covered with a layer of grass clippings to help start the biodegradation process and help prevent the material drying out. If the process dries out, then there is the risk that some seeds or root material may not be destroyed and may lie dormant. Sufficient water should be added to keep the residues moist. However, there is still a risk of spreading viable material when the compost bin is emptied. The risks can be reduced by allowing the rotting down to continue for up to 12 months retention in the compost bin, during which time no fresh material should be added. If there are any concerns about the residues they should be transported to landfill. For advice please check with your Local Authority (**see appendix 7**).

Controlled burning and small scale incineration

9. This option should only be used for disposing of small quantities where ragwort can be safely wilted prior to burning/incineration. The secure storage and controlled burning of less than 10 tonnes per day of plant matter **may** be allowed under an exemption from the Environment Agency under the Waste Management Licensing Regulations or the Agricultural Waste Regulations. **An exemption is not required for domestic sites.** An exemption is allowed under the Regulations above provided waste disposal is undertaken by the owner at the site where it was generated and is from agricultural premises or other relevant land including railway land, forest, woodland and recreational land.
10. Small scale incineration using a recognised device is preferable to open burning as it provides a greater degree of control and is less likely to cause dark smoke or a public nuisance. It is suitable where ragwort is collected in paper sacks and can be directed sufficiently so that it will burn. It is also suitable for ragwort that has been deflowered and wilted. Weather conditions (especially wind direction) must be taken into account with due consideration for neighbouring ground cover, combustible vegetation, buildings and housing. Causing nuisance from smoke and deposits from bonfires is an offence.
11. The incinerator should be located away from any ditch, watercourse or area where animals are kept. It must be well away from any fuel tanks, gas storage cylinders, buildings, domestic property or road. Due consideration must be taken to avoid nuisance and risk to others.

Domestic refuse collection

12. For a small amount of ragwort arising on domestic premises, sealing the ragwort plant in a double layer plastic sack for collection. To avoid bulk, plants can be cut up to assist packing, and to avoid seed dispersal, seed heads should be cut off first and packed.
13. Where the Local Authority provides a 'Green Waste Collection', ragwort should **not** be mixed with the 'Green Waste', unless the Local Authority permits its inclusion. This is because some composting facilities may not have the necessary resources and procedures in place for handling ragwort. Check with your Local Authority.

Composting using a fully contained system

14. For disposing of ragwort where on-site or off-site facilities and expertise is available to compost ragwort or green waste containing ragwort to the British Standard PAS 100:2005⁴. This will ensure that all material is composted effectively. All composting sites need to be registered with the Environment Agency for an exemption from Waste Management Licensing⁵ and should be sited at least 10 metres from any watercourse and animals.
15. Please see British Standard PAS 100: 2005 specification for composted materials which can be obtained from the WRAP (Waste & Resources Action Programme) organisation (helpline@wrap.org.uk).

Biomass facility or permitted incinerator

16. Some farms, nurseries and rural estates may have their own solid fuel-fired boiler. Such systems are commonly fuelled by straw bales, woodchip, coppiced wood, and other forms of biomass, e.g. *Miscanthus* (elephant grass). Such solid fuel burners may be utilised for ragwort disposal where residues are the property of the boiler owner and is located on the same land. Where ragwort disposal is for a third party, a waste transfer note is required.

Waste Management Company

17. Using a waste management company is ideal when there is a large quantity of ragwort to be disposed of or where other options are not available. Disposing of material this way means that it is removed professionally and disposed of legally. Open skips **should not** be used.
18. It should be noted that where the sole purpose or intent is to dispose of waste, then any such material **should not** be transferred to a third party for disposal unless they are a bona fide registered and licensed waste contractor, and the facility is similarly licensed.

⁴ PAS 100:2005 Specification for composted materials (BSI).

⁵ The Waste Management Licensing (England and Wales) (Amendment and Related Provisions) Regulations 2005.

Key Pointers

Remember ragwort;

- remains toxic when sprayed, cut, dug or pulled;
- once cut, the flower can set seed;
- seeds remain viable and can be easily dispersed;
- in its fresh state (un-wilted) is difficult to burn;
- is bulky to transport;
- can only be composted in controlled conditions;
- should only be transported in sealed bags/containers.

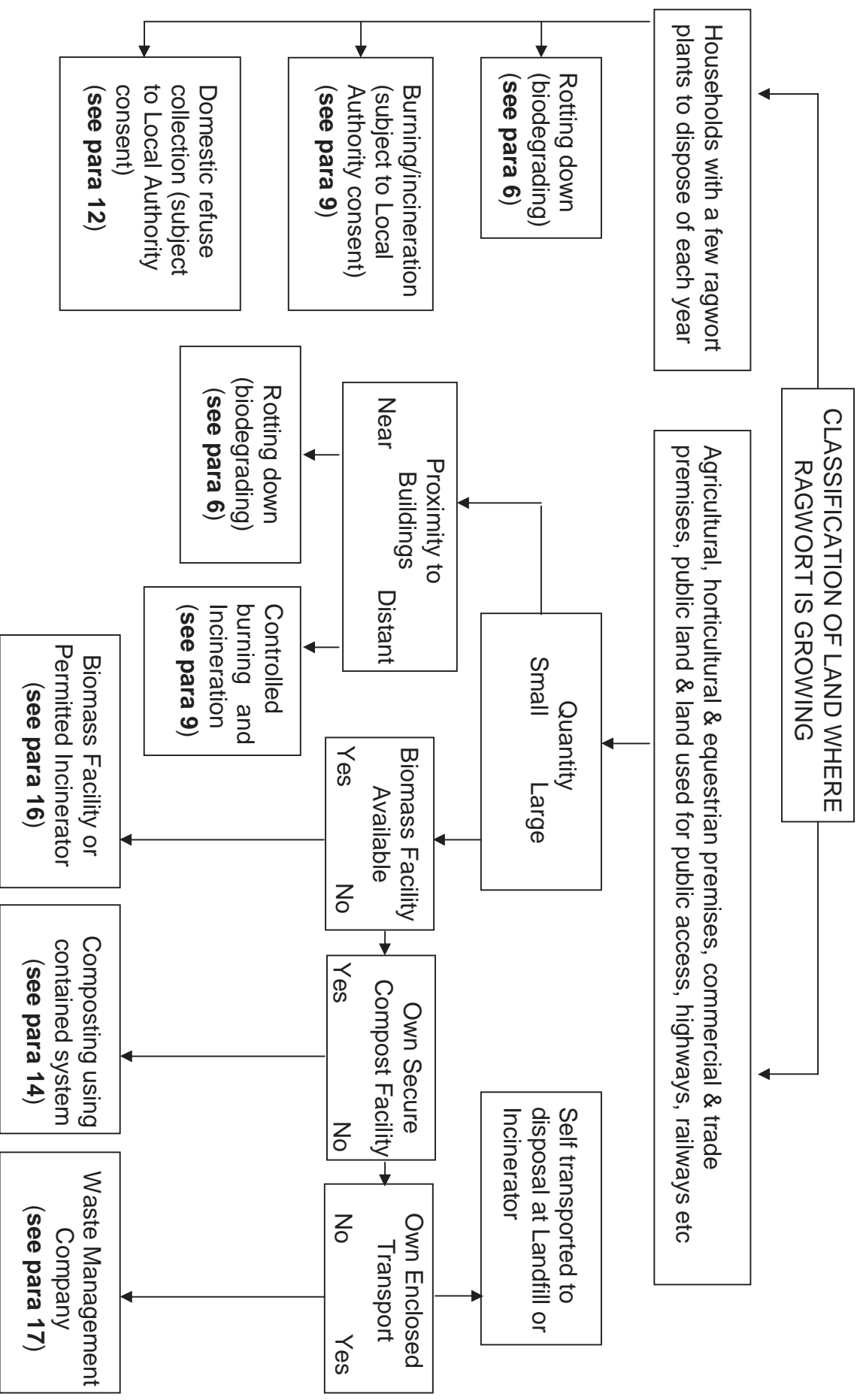
Do

- Think through the options for disposal at the same time as planning the control system;
- Select the most appropriate disposal option;
- Always use gloves and clothing that covers exposed skin, e.g. arms and legs;
- Minimise the risks of exposure to pollen and other airborne particles by wearing a suitable facemask;
- Wash exposed skin thoroughly after handling material and before eating;
- Ensure that any contractors hired for the disposal are properly registered and/or licensed (check with the Environment Agency).

Don't

- Bury in manure heaps;
- Use as animal bedding;
- Dig, bury or plough into the ground;
- Attempt to dry ragwort where animals may gain access to it;
- Allow the liquid from decomposing ragwort to drain directly to any ditch, drain or watercourse;
- Cause dark smoke by attempting to burn wet ragwort, or by using other flammable materials that may directly cause dark smoke, (e.g. rubber or plastics);
- Allow seed dispersal from plant residues that are awaiting disposal;
- Transport ragwort unnecessarily;
- Transport ragwort unless it is in sealed bags or containers.
- Pile up the cut ragwort in a corner of the field.

Figure 4 - Decision Tree to Help Select the Most Appropriate Disposal Option



Appendix 6

SAFETY GUIDELINES

Handling Ragwort

1. Ragwort is a toxic plant and suitable precautions must be taken when handling both live and dead plants. Hands must be protected by wearing sturdy waterproof gardening type gloves, and arms and legs should also be covered. A facemask⁶ should be used to avoid the inhalation of ragwort pollen or other airborne particles.
2. If ragwort comes into contact with bare skin, the area should be thoroughly washed in warm soapy water, rinsed and dried.

General Operator Safety

3. Care must also be taken to ensure operator safety when undertaking ragwort clearance. This is particularly important when clearance takes place on road verges and other public areas accessed by motor vehicles.
4. If assistance in removing ragwort is provided by volunteers, they must be competent to undertake the task and have adequate training (including road safety). They should be supervised to ensure they are not a danger to themselves or to others. This is particularly important when clearing ragwort from verges on roads open to the general public. Volunteers are not permitted to operate on land within the trunk road boundary or land managed by Network Rail or other railway operators.
5. Before clearance commences a sufficient and suitable risk assessment should be undertaken which:
 - identifies the hazards;
 - decides who may be harmed by them;
 - evaluates the risk, and decides whether the existing precautions are adequate or whether more should be done;
 - records the findings;
 - reviews the assessment and revises it if necessary.

Further guidance on undertaking Risk Assessments is available from the Health & Safety Executive (**see appendix 7**).

6. When digging or pulling ragwort adjacent to a public road, pathway or cycle track, it is essential that operators can be seen by other users. All operators must wear high visibility clothing and generally work facing the traffic as far as practicable. An appropriate level of road safety training must be provided to all operatives to raise the awareness of road safety hazards. No attempt should

⁶ The Health and Safety Executive recommends using a half face mask particle respirator conforming to BS EN 149:2001.

be made to dig or pull ragwort in poor visibility or during the hours of darkness on roads. Any vehicles used to transport operators to the location where ragwort is being controlled must be parked safely and must not be parked in such a way as to obstruct the road or other public right of way.

7. Road works signing should be set up in accordance with standard practice governing the type of road. On trunk roads, including motorways, different rules apply and traffic signing needs to be approved by the relevant Trunk Road Authority prior to being erected or works beginning.
8. On high-speed dual carriageways and motorways where the speed limit exceeds 50 mph, special traffic management requirements may be required as determined by the Trunk Road Authorities.

Prior authority for access to land

9. It is essential that prior authority be obtained before clearance of ragwort is undertaken. Access to land without prior authority would amount to trespass and could lead to a charge of criminal damage. Authority should be obtained as follows:
 - **Private land** - authority must be obtained from the owner/occupier of the land;
 - **Public land** - prior authority should be obtained from the relevant public body responsible for the management of that land, i.e. community council, town council, local authority or other public body;
 - **Public local roads**, i.e. roadside verges - clearance should only be undertaken with the prior notification and authority of the relevant road authority, i.e. normally the Highways Department of the Local Authority;
 - **Trunk roads** including motorways - these are the responsibility of Trunk Road Authorities (**see appendix 7**);
 - **Railway land** - this is the responsibility of the railway undertaker concerned. Unauthorised persons must not under any circumstances enter nor purport to authorise entry by any other person. Only the railway undertaker concerned is in a position to authorise entry by persons in possession of appropriate railway safety certification meeting the requirements of undertakers' Railway Safety Cases approved by the Railways (Safety Case) Regulations 2000 (as amended). A failure to comply with this instruction is likely to place the persons concerned in breach of duties under the Health and Safety at Work etc Act 1974. The person(s) authorising entry may in such circumstances also render themselves liable to prosecution in their personal capacity.

Use of herbicides

10. All herbicides are potentially hazardous if not used in accordance with their approval, and where appropriate, environmental risk and COSHH assessments (**see appendix 3**). Such products should only be used where absolutely necessary. Unnecessary use is uneconomic, can lead to pesticide resistance and, in some cases, may also damage the non-target vegetation and threaten the local environment. A risk assessment must be carried out before application. The risk assessment should determine the risks to operators and other people (including members of the public) and should specify the measures required to adequately control those risks. Any measures deemed appropriate and necessary by risk assessment, e.g. substitution of the product (by a less hazardous one), engineering controls etc, should be implemented, and protective equipment required by and stipulated on the product label should be worn. Information relating to first aid and medical treatment in the event of accidental exposure to the chemical is also given on the product label.

Appendix 7

GOVERNMENT DEPARTMENTS, AGENCIES AND STATUTORY AUTHORITIES

<p>Blaenau Gwent County Borough Council Municipal Offices, Civic Centre, Ebbw Vale, NP23 6XB Tel: 01495 350555</p>
<p>Bridgend County Borough Council Civic Offices, Angel Street, Bridgend, CF31 4WB Tel: 01656 643643</p>
<p>British Waterways Navigation Road, Northwich, Cheshire, CW8 1BH Tel: 01606 723800 http://www.britishwaterways.co.uk</p>
<p>Cadw WAG, Plas Carew Unit 5/7 Cefn Coed, Parc Nantgarw, Cardiff, CF15 7QQ Tel: 01443 336000 Fax: 01443 336001 http://www.cadw.wales.gov.uk Email: cadw@wales.gsi.gov.uk</p>
<p>Caerphilly County Borough Council Ty Penalta House, Tredomen Park, Hengoed, Ystrad Mynach, CF82 7WF Tel: 01443 815588</p>
<p>Cardiff County Council County Hall, Atlantic Wharf, Cardiff, CF10 4UW Tel: 029 2087 2000</p>
<p>Carmarthenshire County Council County Hall, Carmarthen, Carmarthenshire, SA31 1JP Tel: 01267 234567</p>
<p>Ceredigion County Council Penmorfa, Aberaeron, Ceredigion, SA46 0PA Tel: 01545 570881</p>
<p>City and County of Swansea Civic Centre, Oystermouth Road, Swansea, SA1 3SN Tel: 01792 636000</p>
<p>Conwy County Council Bodlondeb, Conwy, LL32 8DU Tel: 01492 574000</p>
<p>Countryside Council for Wales Maes-y-ffynnon, Penrhosgarnedd, Bangor, Gwynedd, LL57 2DW Tel: 0845 1306229 http://www.ccw.gov.uk/index.cfm Email: enquiries@ccw.gov.uk</p>
<p>Denbighshire County Council County Hall, Wynnstay Road, Ruthin, LL15 1YN Tel: 01824 706101</p>

Environment Agency

National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY
Tel: 0800 807060

Environmental Impact Assessment (contacts)**North Wales**

Caernarfon Divisional Office, Penrallt, Caernarfon, Gwynedd, LL55 1EP
Tel: 01286 674144

Mid and South East Wales

Llandrindod Walls Divisional Office, Government Buildings, Spa Road East,
Llandrindod Wells, LD1 5HA
Tel: 01597 823777

West Wales

Carmarthen Divisional Office, Government Buildings, Picton Terrace,
Carmarthen, Carmarthenshire, SA31 3BT
Tel: 01267 225300

Flintshire County Council

County Hall, Mold, Flintshire, CH7 6NB
Tel: 01352 752121

Forestry Commission Wales

Rhodfa Padarn, Llanbadarn Fawr, Aberystwyth, Ceredigion, SY23 3UR
Tel: 0845 604 0845
<http://www.forestry.gov.uk/wales>
Email: fcwales@forestry.gsi.gov.uk

Gwynedd County Council,

Council Offices, Shirehall Street, Caernarfon, Gwynedd, LL55 1SH
Tel: 01286 672255

Health & Safety Executive (HSE)

Government Buildings, Phase 1, Ty Glas, Cardiff, CF14 5SH
HSE Infoline Tel: 0845 345 0055
<http://www.hse.gov.uk>

Isle of Anglesey County Council,

Council Offices, Llangefni, Anglesey, LL77 7TW
Tel: 01248 750057

Merthyr Tydfil County Borough Council

Civic Centre, Castle Street, Merthyr Tydfil, CF47 8AN
Tel: 01685 725000

Monmouthshire County Council

County Hall, Cwmbran, NP44 2XH
Tel: 01633 644644

Neath Port Talbot County Borough Council

Civic Centre, Port Talbot, SA13 1PJ
Tel: 01639 763333

<p>Network Rail Kings Place, 90 York Way, London, N1 9AG Tel: 08457 114141 http://www.networkrail.co.uk</p>
<p>Newport City Council Civic Centre, Newport, NP20 4UR Tel: 01633 656656</p>
<p>The Office of Rail Regulation (ORR) 1 Kemble Street, London, WC2B 4AN Tel No: 020 7282 2000 http://www.orr.gov.uk</p>
<p>Pembrokeshire County Council County Hall, Haverfordwest, Pembrokeshire, SA61 1TP Tel: 01437 764551</p>
<p>Chemicals Regulation Directorate (CRD) Mallard House, Kings Pool, 3 Peasholme Green, York, YO1 7PX Tel: 01904 455775 http://www.pesticides.gov.uk</p>
<p>Plant Health and Biotechnology Branch Sustainability and Environmental Evidence Division, Welsh Assembly Government, Rhodfa Padarn, Llanbadarn Fawr, Aberystwyth, Ceredigion, SY23 3UR Tel: 0300 062 2306 Email: planthealthandbiotech@wales.gsi.gov.uk</p>
<p>Powys County Council County Hall, Llandrindod Wells, Powys, LD1 5LG Tel: 01597 826000</p>
<p>Rhondda Cynon Taff County Borough Council The Pavilions, Cambrian Park, Clydach Vale, Tonypany, CF40 2XX Tel: 01443 424000</p>
<p>Roads and Projects, Transport and Strategic Regeneration, Department of Economy and Transport, Welsh Assembly Government, Cathays Park, Cardiff, CN10 3NQ Tel: 0845 0103300 (English), Tel. 0845 0104400 (Welsh) Email. DEandT@wales.gsi.gov.uk</p>
<p>Rural Inspectorate in Wales Government Building, Spa Road East, Llandrindod Wells, LD1 5HA Tel: (01597) 823777</p>
<p>Torfaen County Borough Council Civic Centre, Pontypool, Torfaen, NP4 6YB Tel: 01495 762200</p>

Trunk Road Agents:**South Wales Trunk Road Agency**

12a Llandarcy House, The Courtyard, Llandarcy, Neath, SA10 6EJ

Tel: 0845 602 6020

Email: enquiries@southwales-tra.gov.uk

Mid Wales Trunk Road Agency

Powys County Council, County Hall

Llandrindod Wells, Powys, LD1 5LG

Tel: 0845 6027 035

Email: management.unit@midwales-tra.gov.uk

North Wales Trunk Road Agency

Unit 7, Llys Onnen, Ffordd y Llyn,

Parc Menai, Bangor, LL57 4DF

Tel: 01286 685180 Fax: 01248 674975

Email: nwtra@northwales-tra.gsi.gov.uk

Vale of Glamorgan County Council

Civic Offices, Holton Road, Barry, Vale of Glamorgan, CF63 4RU

Tel: 01446 700111

Voluntary Initiative

<http://www.voluntaryinitiative.org.uk>

Waste & Resources Action Programme (WRAP),

The Old Academy, 21 Horse Fair, Banbury, Oxon, OX16 0AH

Tel: 0808 100 2040

Email: info@wrap.org.uk

<http://www.wrap.org.uk/index.html>

Welsh Association of National Park Authorities

126 Bute Street, Cardiff Bay, Cardiff, CF10 5LE

Tel: 029 2049 9966

Email: info@anpa.gov.uk

Wrexham County Borough Council

The Guildhall, Wrexham, LL11 1AY

Tel: 01978 292000

Appendix 8

USEFUL PUBLICATIONS

Defra Publications

- The Weeds Act 1959. Preventing the spread of harmful weeds (PB7189).
- The Weeds Act 1959. Guidance on the methods that can be used to control harmful weeds (PB7190).
- The Code of Practice for Using Plant Protection Products (PB11090).
- Code of Practice for Suppliers of Pesticides to Agriculture, Horticulture and Forestry (PB3529) (also known as the Yellow Code).
- Protecting our Water, Soil and Air.
A Code of Good Agricultural Practice for farmers, growers and land managers (ISBN 978 0 11 243284 5).

Other publications

- The UK Pesticide Guide (ISBN 1845935624).
Annual publication of available pesticides and adjuvants in the UK for use in agriculture, horticulture, forestry and amenity situations.
- Common Ragwort (*Senecio jacobaea*) – Towards a Ragwort management strategy. English Nature Information Note (English Nature 2003).
Information note on the control of common ragwort.
- The biology and non-chemical control of Common ragwort (*Senecio jacobaea*). W Bond, G Davies, R Turner, HDRA, Ryton Organic Gardens, Coventry, CV8 3LG.
<http://www.gardenorganic.org.uk/organicweeds>
- “A Guide to Animal Welfare in Nature Conservation Grazing” *Provides guidance on the management of stock on nature conservation sites.*
www.grazinganimalsproject.org.uk
- Ragwort Poisoning in Livestock: Prevention and Control.
Technical note TN570, SAC (Scottish Agricultural College) 2005.

Appendix 9

SOURCES OF TECHNICAL ADVICE ON RAGWORT CONTROL

ADAS

Provide chargeable consultancy advice

ADAS, Woodthorne, Wergs Road, Wolverhampton, WV6 8TQ

Tel: 0845 766 0085

<http://www.adas.co.uk>

Agricultural Industries Confederation (AIC)

Member companies supply and distribute agrochemicals

Confederation House, East of England Showground, Peterborough, PE2 6XE

Tel: 01733 385230

Email: enquiries@agindustries.org.uk

<http://www.agindustries.org.uk>

Association of Independent Crop Consultants (AICC)

Provide chargeable consultancy advice

Agriculture Place, Drayton Farm, East Meon, Petersfield, Hampshire, GU32 1PN

Tel: 01730 823881

Email: aicc@farmline.com

<http://www.aicc.org.uk>

Alvan Blanch

Supplier of the 'Eco-Puller' – a mechanical tall weed pulling machine (including ragwort)

Chelworth, Malmesbury, Wiltshire, SN16 9SG

Tel: 01666 577333

<http://www.alvanblanch.co.uk>

Centre for Ecology & Hydrology

Control of injurious weeds in or near water

Maclean Building, Benson Lane, Crowmarsh Gifford, Wallingford, Oxfordshire, OX10 8BB

Tel: 01491 838800

<http://www.capm.org.uk>; <http://www.ceh.ac.uk>

BCPC (formerly British Crop Protection Council)

Member companies can supply technical literature

7 Omni Business Centre, Omega Park, Alton, Hampshire, GU34 2DQ

Tel: 01420 593200

<http://www.bcpc.org>

Crop Protection Association (CPA)

Member companies can supply technical literature

2 Swan Court, Cygnet Park, Hampton, Peterborough PE7 8GX

Tel: 01733 355370

E-mail: info@cropprotection.org.uk

Barrier Animal Health Care

Supplier of Citronella Oil derived product

36 Haverscroft Industrial Estate, New Road, Attleborough, Norfolk, NR17 1YE

Tel: 01953 456363 Fax: 01953 455594

<http://www.barrier-biotech.com>

Basis Registration Ltd

Runs the accreditation scheme for advisors of pesticide use

BASIS, 34 St John Street, Ashbourne, Derbyshire, DE6 1GH

Tel: 01335 343945

<http://www.basis-reg.co.uk>

British Horse Society (BHS)

National organisation for horse owners and riders

Stoneleigh Deer Park, Kenilworth, Warwickshire, CV8 2XZ

Tel: 0844 848 1666

<http://www.bhs.org.uk>

British Institute of Agricultural Consultants (BIAC)

Provide chargeable consultancy advice

The Estate Office, Torry Hill, Milstead, Sittingbourne, Kent, ME9 0SP

Tel: 01795 830100

<http://www.biac.co.uk>

Countryside Council for Wales (CCW)

Maes y Ffynnon, Penrhosgarnedd, Bangor, Gwynedd, LL57 2DW

Tel: 0845 1306 229

<http://www.ccw.gov.uk>

Farming and Wildlife Advisory Group (FWAG)

Advice on farming and conservation

FWAG Cymru, Ffordd Arran, Dolgellau, Gwynedd, LL40 1LW

Tel: 01341 421456

Email: cymru@fwag.org.uk

<http://www.fwag.org.uk>

The Henry Doubleday Research Association

Organic gardening, including weed control

Garden Organic, Garden Organic Ryton, Coventry, CV8 3LG

Tel: 024 7630 3517

Email: enquiry@gardenorganic.org.uk

<http://www.gardenorganic.org.uk>

The Lazy Dog Tool Ltd

Supplier of ragwort lifting tools & weeding brigades

Hill Top Farm, Spaunton, Appleton-Le-Moors, North Yorkshire, YO62 6TR

Tel/Fax: 01751 417 351

Email: enquiries@lazydogtoolco.co.uk

<http://www.lazydogtools.co.uk>

National Association of Agricultural Contractors

Member companies can provide contracting services in agriculture amenity and industrial land based areas

Samuelson House, 62 Forder Way, Hampton, Peterborough, PE7 8JB

Tel: 08456 448750

Email: members@naac.co.uk

<http://www.naac.co.uk>

Organic Centre Wales

The Institute of Biological, Environmental and Rural Studies (IBERS)

Aberystwyth University, Ceredigion, SY23 3AL

Tel: 01970 622248

Technical helpline 01970 622100

Email: organic@aber.ac.uk

<http://www.organic.aber.ac.uk>

Rag-Fork

Suppliers of ragwort lifting tool

110 Sunderland Street, Tickhill, Doncaster, DN11 9ER

Tel: 01302 746077

Email: sales@ragfork.co.uk

<http://www.rag-fork.co.uk>

Ragwort-UK Ltd

Cinnabar biological control agents

Ragwort-UK Ltd, 74 Roman Bank, Long Sutton, Lincolnshire, PE12 9LB

Tel: 01406 365180

Email: forum@ragwort-uk.com

<http://www.ragwort-uk.com>

Scottish Agricultural College (SAC)

Provide chargeable consultancy advice

Corporate Information Office, King's Buildings, West Mains Road, Edinburgh, EH9 3JG

Tel: 0131 535 4000

Email: information@sac.co.uk

<http://www.sac.ac.uk/>

The presence of any organisation on this list does not infer that this **Code of Practice to Prevent and Control the Spread of Ragwort** endorses the advice, guidance, information, products or services of any organisation listed.

Notes

The Weeds Act, 1959

Complaint Form

This form should be used to make a complaint about an infestation of injurious weeds as specified in the Weeds Act 1959 where there is a risk that those weeds will spread to other land.

Please complete the form in BLOCK letters and send it to:

The Field Support Unit,
Rural Inspectorate for Wales,
Government Building,
Spa Road East,
Llandrindod Wells,
LD1 5HA.



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

Yr Adran Materion Gwledig a
Threftadaeth Department for Rural
Affairs and Heritage

Serial Number

IMPORTANT: This complaint will not be considered unless you have completed all sections of this form.

Section 1: Your Details

1.	Name in Full	<input type="text"/>	Title	<input type="text"/>
	Full Postal Address	<input type="text"/>		
		Postcode.....		
	Telephone No.	<input type="text"/>	Mobile No.	<input type="text"/>
	E-mail address	<input type="text"/>		
	County / Parish / Holding No. (If you have one)	Customer Reference No. (If you have one)		
	<input type="text"/>	<input type="text"/>		

Section 2: Details of land on which the weeds are growing

2. Please indicate which weeds are present by ticking the appropriate box:	3. Is the infestation:
(a) Common Ragwort (<i>Senecio jacobaea</i>) <input type="checkbox"/>	(a) light (less than 5 plants / 10 square metres) <input type="checkbox"/>
(b) Spear Thistle (<i>Cirsium vulgare</i>) <input type="checkbox"/>	(b) moderate (5-9 plants / 10 square metres) <input type="checkbox"/>
(c) Creeping or field thistle (<i>Cirsium arvense</i>) <input type="checkbox"/>	(c) heavy (10 or more plants / 10 square metres) <input type="checkbox"/>
(d) Curled dock (<i>Rumex crispus</i>) <input type="checkbox"/>	
(e) Broad leaved dock (<i>Rumex obtusifolius</i>) <input type="checkbox"/>	
4. Are the weeds:	5. a What is the land currently used for?
(a) close to the ground <input type="checkbox"/>	<input type="text"/>
(b) in bud <input type="checkbox"/>	
(c) flowering / seeding <input type="checkbox"/>	

Section 2: continued

5. b Approximate area of land infested by the weeds (square metres)

6. Location. Please provide as much information as possible including a map (photocopy or sketch map) clearly showing the land on which the weeds are growing in relation to the land at risk if the weeds spread. You should include an Ordnance Survey map 4 or 6 figure grid reference, field number or field names (if known).

County.....

If necessary, continue on a separate sheet, sign and date each sheet and tick this box

7. Details of owner, occupier, competent authority or agent (if property vacant). Please provide all this information if possible, or explain any omissions.

Name in Full

Title

Full postal address

Postcode.....

Telephone No.

Mobile No.

8. Have you contacted or attempted to contact the owner, occupier, competent authority or agent (if property vacant)?

Yes No

If YES give details of response received or attempts made. If NO please explain why no contact has been made. Please note that unless contact with the owner, occupier, or agent has been attempted, this complaint will NOT be actioned.

Section 3: Land threatened if the weeds spread

9. **Location.** If not already provided [at question 6] please provide as much information as possible including a map (photocopy or sketch map) clearly showing the land at risk if the weeds spread. You should include an Ordnance Survey map 4 or 6 figure grid reference, field number or field names (if known).

County.....

If necessary, continue on a separate sheet, sign and date each sheet and tick this box

10. **Is the land currently used for:**
- (a) keeping or grazing horses or other livestock? Yes No
 - (b) farmland used to produce conserved forage? Yes No
 - (c) other agricultural activities? Yes No

11. **How close are the weeds to this land?**
- (a) Less than 50 metres
 - (b) Between 50 & 100 metres
 - (c) More than 100 metres

12. (a) Please give the approximate area of land threatened (square metres)
- (b) Do you own or occupy this land? Yes No

If NO, please give details of the owner/occupier.

Name

Title

Full postal address

Postcode.....

Telephone No.

Mobile No.

- (c) Have you attempted to contact the owner/occupier? Yes No

Section 3: Continued

Please give details of response received or attempts made. If NO, explain why no contact has been made.

(d) Are they aware that you are making this complaint?

Yes

No

13. Please give details of any other information relevant to your complaint.

I declare that all the particulars given and the statements made in this form are correct.

Signature

Date

WARNING: On no account should a member of the public attempt to enter railway land or verges alongside motorways to verify the presence of weeds or to remove them. You must also have the owner's permission to enter other land. You are also advised to wear protective clothing and gloves whenever injurious weeds are handled.

Data Protection Act

Any personal information that you provide on this form will be used by The Rural Inspectorate of Wales of the Welsh Assembly Government for the purpose of establishing a valid complaint and investigating valid complaints under the Weeds Act 1959. Your identity will not normally be disclosed to any third parties, including any person or organisation that is the subject of your complaint. Any information that may be disclosed in response to a request under the Code of Practice on Access to Government Information, the Freedom of Information Act or the Environment Information Regulations will not normally include any details that will lead to your identity being made known to third parties.