Two Unique Products
Two Specialist Companies

Weed focus
Ragwort

Graham Paul offers some practical advice on that most awkward of weeds – Ragwort and offers the opportunity of picking up some BASIS points.

Common Ragwort (Senecio jacobaeae)

Rosette stage found in year 1
Ragwort belongs to the daisy family and along with the Groundsel is classified in the genus Senecio. Common Ragwort (Senecio jacobaeus), as the name implies, is a species that is found in a variety of species and is naturally a biennial, forming a rosette stage in the first year that can flower. In the second year grows a hairless, leafy flowering stem that is divided at the top.

Yellow flowers 15 to 20mm across, are borne in flat topped clusters from June until November when the plant dies. However, in some instances, the plant becomes damaged by grazing or mechanical injury and physiology occur and it becomes a short-lived perennial, surviving for several years.

Most wildflower references list six species of ragwort found in the UK. The other five are; Hoary Ragwort (S. erucifolius), Oxford Ragwort (S. squarrosus) introduced from southern Italy and naturalised in Britain, Marsh Ragwort (S. paludosus) a rare perennial growing to 2.0m tall in the fens in East Anglia. Ragwort provides a source of food and nutrition for over 200 invertebrate species in the UK; of these some 30 are totally dependent on this ragwort for their food source, which makes ragwort an essential part of our natural flora.

Ragwort contains two toxic alkaloids that are poisonous to animals; it is a particular problem to grazing animals such as horses, cattle and pigs, whose tolerance to these alkaloids is in general low, causing irreversible cirrhosis of the liver when an appreciable quantity of fresh ragwort is eaten. Fortunately the plant has a very bitter taste so the fresh foliage is not eaten. However, alkaloids can be absorbed in small quantities through the skin when the plant is handled causing an allergic reaction in sensitive individuals. Among the alkaloids found in ragwort is a group known as the sesquiterpene lactones that can cause the condition ‘vomiting dermatitis’. These are different from the pyrrolizidine alkaloids that are responsible for the toxic effects to the liver that result from eating the foliage.

**Five Injurious Weeds**

Common Ragwort is one of five injurious weeds cited in the Weed Control Act 1959. The term injurious weed describes an invasive species that is injurious to; crops, natural habitats, ecosystems, humans and livestock such as horses and other grazing animals. Indeed, Common Ragwort is the only one of the listed species that is toxic; the others are included in the legislation because of their damaging effect on crops. They are; Spear Thistle (Cirsium vulgare), Creeping or Field Thistle (Cirsium arvense), Curled Dock (Rumex crispus) and Broad-Leafed Dock (Rumex obtusifolius).

Under the terms of the Weed Control Act 1959, an invading species can be required by the Secretary of State for Environment, Food and Rural Affairs to take steps to prevent the spread of one or more of the five species. However, the growth of the plant is not made illegal by the act and there is no statutory obligation for control placed upon landowners in general. It is only when the potential spread of the weed to neighbouring landowners is deemed to be harmful that the powers of the legislation are used.

Three other pieces of legislation are relevant to ragwort:

1. The Ragwort Control Act of 2003, a private members bill introduced by Mr John Greenway MP for Ryedale.
2. Adjectit of Mr Greenway’s 2003 Senecio legislation was the publication of ‘Code of Practice for the Control of Ragwort’ by the Department for Environment, Food and Rural Affairs (DEFRA). This code defines the situations in which there is a likelihood of ragwort spreading to neighbouring land where it will present an identifiable risk of ingestion by vulnerable animals and provides guidance on the most appropriate control measures. The Ragwort Control Act 2003 gives this Code ‘evidential status’ in any proceedings taken under the Weeds Control Act 1959. Failure to follow this Code is not an offence but non-compliance may be used as evidence in any legal action. Equally, owners/operators would be able to establish a defence if they can demonstrate that they have adopted control measures that comply with this Code’s guidance.

**Horses will avoid ragwort in pastures**

When a horse has been poisoned by ragwort, the symptoms include; yellow mucous membranes, depression, and lack of coordination. Sheep and pigs have a much greater tolerance to ragwort and will eat small quantities of the plant with relish. Although they do suffer damage to the liver from consuming ragwort, it is at a much reduced rate than horses, cattle and pigs. There are reports that the alkaloids kill parasitic worms in the sheep’s stomach, so in small doses they can be beneficial.

Ragwort poses little risk to the health of humans since the bitter taste precludes its use as a food. However, it becomes much more palatable if the flowers are dried, as the bitter taste is removed. Fortunately the plant has a very much greater tolerance to ragwort than other species and is normally a biennial, forming a rosette stage in the first year that can flower. In the second year grows a hairless, leafy flowering stem that is divided at the top.

**“The high visibility marking of the moth and caterpillars is a warning for predators to leave them alone. Survival is also helped by lack of competition for their main source of food”**

3. The Natural Environment and Rural Communities Act 2006 delegates the functions of the Secretary of State for the Environment to the Secretary of State under the Weed Control Act to Natural England, a DEFRA agency. This delegation of functions enables Natural England to investigate complaints where there is a risk that injurious weeds might spread to neighbouring land.

In some situations a repeat best carried out in moist soils. It is not uncommon to see a ragwort plant totally devoured by the caterpillers and one next to it unharmed.

**Biological Control**

The Cinnabar moth Tyria jacobaeae is an interesting species associated with ragwort. Both the adult and caterpillar feed on ragwort plants and are not affected by the toxic alkaloids they absorb through their digestive tracts. They assimilate the toxins into their bodies as a defence mechanism against birds and other predators, who would find them unpalatable.

The Cinnabar moth (Tyria jacobaeae) is an interesting species associated with ragwort. Like other aphids, it is a pest of ragwort. Both the adult and caterpillar feed on ragwort plants and are not affected by the toxic alkaloids they absorb through their digestive tracts. They assimilate the toxins into their bodies as a defence mechanism against birds and other predators, who would find them unpalatable.

Cinnabar moth

The high visibility marking of the moth and caterpillars is a warning for predators to leave them alone. Survival is also helped by lack of competition for their main source of food. However, distribution of the Cinnabar moth caterpillars tends to be patchy, making control unpalatable. It is not uncommon to see a ragwort plant totally devoured by the caterpillers and one next to it untouched.

**Chemical control**

Barrier H+ is an herbicide based on a natural product (citronella oil) that can be used at all stages of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe search on ragwort and certain other weeds and will also temporarily scorch the grass but this soon recovers.

Selective herbicides containing MCPA (e.g. Agritox 50) will give moderate control of the rosette stage of the weed. Products containing 2,4-D (e.g. Depitox) will give a moderate level of control at dose rates applying 1.65kg of the active ingredient per hectare (3.3L/ha of a 50%/1,amine formulation) coupled with a sensible rotation of grazing will help to crowd ragwort populations, which reduces the growth of weed and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe search on ragwort and certain other weeds and will also temporarily scorch the grass but this soon recovers.

Selective herbicides containing MCPA (e.g. Agritox 50) will give moderate control of the rosette stage of the weed. Products containing 2,4-D (e.g. Depitox) will give a moderate level of control at dose rates applying 1.65kg of the active ingredient per hectare (3.3L/ha of a 50%/1,amine formulation) coupled with a sensible rotation of grazing will help to crowd ragwort populations, which reduces the growth of weed and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe search on ragwort and certain other weeds and will also temporarily scorch the grass but this soon recovers.

Selective herbicides containing MCPA (e.g. Agritox 50) will give moderate control of the rosette stage of the weed. Products containing 2,4-D (e.g. Depitox) will give a moderate level of control at dose rates applying 1.65kg of the active ingredient per hectare (3.3L/ha of a 50%/1,amine formulation) coupled with a sensible rotation of grazing will help to crowd ragwort populations, which reduces the growth of weed and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe search on ragwort and certain other weeds and will also temporarily scorch the grass but this soon recovers.

Selective herbicides containing MCPA (e.g. Agritox 50) will give moderate control of the rosette stage of the weed. Products containing 2,4-D (e.g. Depitox) will give a moderate level of control at dose rates applying 1.65kg of the active ingredient per hectare (3.3L/ha of a 50%/1,amine formulation) coupled with a sensible rotation of grazing will help to crowd ragwort populations, which reduces the growth of weed and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe search on ragwort and certain other weeds and will also temporarily scorch the grass but this soon recovers.

Selective herbicides containing MCPA (e.g. Agritox 50) will give moderate control of the rosette stage of the weed. Products containing 2,4-D (e.g. Depitox) will give a moderate level of control at dose rates applying 1.65kg of the active ingredient per hectare (3.3L/ha of a 50%/1,amine formulation) coupled with a sensible rotation of grazing will help to crowd ragwort populations, which reduces the growth of weed and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe search on ragwort and certain other weeds and will also temporarily scorch the grass but this soon recovers.
Ragwort belongs to the daisy family and along with the Groundsel is classified in the genus Senecio. Common Ragwort (Senecio jacobaea), as the name implies, is distributed over many countries as a grazing species and is normally biennial, having a rosette stage in the first year that can be followed by flowering the second year grows a hairy, leafy flowering stem that is divided at the top.

Yellow flowers 15 to 20mm across, are borne on loose, flat-topped clusters from June until November when the plant dies. However, in some instances, the plant becomes damaged by grazing before this stage of its growth, and its physiology occur and it becomes a short-lived perennial, surviving for several years.

Most wildflower references list six species of ragwort found in the UK. The other five are: Hoary Ragwort (S. erucifolius), Oxford Ragwort (S. squamatus) introduced from southern Italy and naturalised in Britain, Marsh Ragwort (S. plurinervia) introduced from the Mediterranean and naturalised on coastal cliffs in southern England, and Fen Ragwort (S. paludosus) a rare perennial growing to 2.0m tall in the fens in East Anglia.

Ragwort provides a source of food and nectar for over 200 invertebrate species in the UK; of these some 30 are totally dependent on ragwort for their food source, which makes ragwort an essential part of our native flora.

Ragwort contains many different alkaloids that are poisonous to animals. It is a particular problem to grazing animals such as horses, cattle and pigs, whose tolerance to these alkaloids is much lower, causing irreversible cirrhosis of the liver when an adequate quantity of fresh ragwort is eaten. Fortunately the plant has a very bitter taste so the fresh foliage is rarely eaten by horses and cattle but it becomes much more palatable once the plant dies.

Hay and silage contaminated with ragwort plants can be fatal to livestock. Cattle and sheep eating ragwort are not broken down by digestion so they are not affected by the toxic alkaloids they absorb through their digestive tracts. They assimilate these into their bodies as a defence mechanism against birds and other predators, who would find them unpalatable.

Biological Control

The Cinnabar moth Tyria jacobaeae is an interesting species and a widespread pest of ragwort. Both the adult and caterpillar feed on ragwort plants and are not affected by the toxic alkaloids they absorb through their digestive tracts. They assimilate these into their bodies as a defence mechanism against birds and other predators, who would find them unpalatable.

Cinnabar moth

The high visibility marking of the moth and caterpillars is a warning for predators to leave them alone. Survival is also helped by lack of competition for their main source of food. However, distribution of the Cinnabar moth caterpillars tends to be patchy, making control unfeasible.

Horses will avoid ragwort in pastures

When a horse has been poisoned by ragwort, the symptoms include: yellow mucous membranes, depression, and lack of coordination. Sheep and plants have a much greater tolerance to ragwort and will eat small quantities of the plant with relish. Although they do suffer damage to the liver from consuming ragwort, it is at a much reduced rate than horses, cattle and pigs. There are reports that the alkaloids kill passive worms in the sheep’s stomach, so in small doses they can be beneficial.

Ragwort poses little risk to the health of humans since the bitter taste precludes its use as a food. However, alkaloids can be absorbed in small quantities through the skin when the plant is handled causing an allergic reaction in sensitive individuals. Among the alkaloids found in ragwort is a group known as the sesquiterpene lactones that can cause the condition transient urticaria. These are different from the pyrrolizidine alkaloids that are responsible for the toxic effects to the liver that result from eating the foliage.

Five Injurious Weeds

Ragwort is one of five injurious weeds cited in the Weed Control Act of 1959. The term injurious weed describes an invasive species that is injurious to: crops, natural habitats, ecosystems, humans and livestock such as horses and other grazing animals. Indeed, Common Ragwort is the only one of the listed species that is toxic; the others are included in the legislation because of their potential to cause the condition ‘compositae dermatitis’. This delegation of functions enables Natural England to investigate complaints where there is risk that injurious weeds might spread to neighbouring land.

Under the terms of the Weed Control Act of 1959, an landowner can be required by the Secretary of State for Environment, Food and Rural Affairs to take steps to prevent the spread of one or more of the five species. However, the growth of the plant is not made illegal by the act and there is no statutory obligation for control placed upon landowners in general. It is only when the potential spread of the weed to neighbouring landowners is deemed to be harmful that the powers of the legislation are used.

Three other pieces of legislation are relevant to ragwort:

1. The Ragwort Control Act of 2003, a private members bill introduced by Mr John Greenway MP for Ryedale.

2. Adject in result of Mr Greenway’s Sevenoaks MP’s bill was the publication of ‘Code of Practice for the Control of Ragwort’ by the Department for Environment, Food and Rural Affairs (DEFRA). This code defines the situations in which there is a likelihood of ragwort spreading to neighbouring land where it will present an identifiable risk of ingestion by vulnerable animals and provides guidance on the most appropriate control measures. The Ragwort Control Act 2003 gives this ‘code’ ‘evidential’ status in any proceedings taken under the Weeds Control Act 1959. Failure to follow this Code is not an offence but non-compliance may be used as evidence in any legal action.

3. The Natural Environment and Rural Communities Act 2006 delegates the functions previously to the Secretary of State under the Weed Control Act to Natural England, a DEFRA agency. This delegation of functions enables Natural England to investigate complaints where there is risk that injurious weeds might spread to neighbouring land.

Piglets and ragwort plants totally devastated by glyphosate

It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack. It produces a rapid, severe scorch of growth and is marketed in a ready-to-use spot treatment pack.