

# Ragwort - Fact Sheet

**Ragwort (Senecio Jacobea)** is also known as ragweed, buachalán and buachalán buidhe. It is a common weed of Irish pastures and thrives on a wide range of soils, but competes best on lighter free draining soils where fertility is reasonably high and grazing not intensive.

There are four main types of ragwort to be found in Ireland according to An Irish Flora (1996) namely:

**Common Ragwort** *Senecio jacobaea* - found everywhere

**Marsh Ragwort** *Senecio aquaticus* - wet fields, marshes esp. western counties

**Oxford Ragwort** *Senecio squalidus* - mainly in our larger cities, rare elsewhere

**Hoary Ragwort** *Senecio erucifolius* - locally, Dublin, Meath

All four can interbreed where both parents are found.

## Germination & Lifecycle

Ragwort germinates in the autumn (mainly) and spring. A seed can germinate anywhere the soil surface is exposed and conditions are favourable. In grassland situations this can be due to poor sward establishment, poaching etc. Ragwort does not tolerate regular soil cultivation and is rarely a problem in arable fields.

Ragwort is a biennial plant, i.e. it grows from seed and remains in the rosette stage for the first growing season. In the following year it produces its familiar golden yellow flowers on a stem varying in height from 45 to 75 cm. Flowering normally takes place in late summer after which most plants die off leaving a gap for new seedlings. It is also capable of becoming a short-lived perennial (4-5 years) if the flower stem is cut e.g. in a lawn situation.

## Reproduction & Dispersal

Seed is the principle method of spreading this weed, but root fragments are also capable of reproduction. Each plant produces 50,000-200,000 seeds over a 4-6 week period (July-Sept). Ragwort produces feathery type seeds that are dispersed by wind, water, animals, hay and farm machinery. The majority of seeds are dispersed by wind but mainly fall within 5 metres of the parent. The seeds can remain viable for 5-20 years depending on soil conditions.

### Poisoning

Ragwort is a highly poisonous plant if eaten. Ragwort is toxic to cattle, horses, deer, goats, pigs and chickens. Sheep are less affected by it but some trials would suggest lower thrive due to eating ragwort. The poisonous substances in ragwort are toxic alkaloids (Jacobine, Jacodine and Jacoine). These cause the liver to accumulate copper, causing ill health and death. On good pastures livestock avoid eating ragwort, as it is unpalatable, but where there is over-stocking and grass is scarce the weed is unavoidably eaten. The poisonous material contained in ragwort is not destroyed by drying. Hay containing ragwort is particularly dangerous. Grass silage containing ragwort is also a serious source of poisoning. Cases of poisoning

occurring in late winter and spring often result from the feeding for some months previously of hay or silage cut from ragwort infested swards.

## **Control of Ragwort**

The only way to safeguard against loss from ragwort poisoning is to eradicate the weed either by pulling, ploughing, cutting or chemical control.

### ***Pulling***

Pulling by hand is recommended where infestation is not severe and labour is available. Pulling after heavy rainfall when the ground is soft gives best results, but this should be done before seed has set. Pulled plants should be removed and destroyed. As the seedling and rosette stages are not usually removed by hand pulling, the operation should be repeated for two consecutive years to achieve satisfactory eradication. In most cases this is unpractical.

### ***Ploughing***

The most reliable method of control is to plough infested grassland and follow with a 3 or 4 year rotation of arable cropping before establishing a good ley again. Unfortunately this can only be done in areas which can be tilled and where arable farming is practised. Ploughing followed by direct seeding will not be a success unless chemical control (2.4DB or MCPA) of newly germinated ragwort is carried out in the new ley. Extra care should be taken to prevent the development of seeding ragwort in new ley.

### ***Cutting***

Cutting the plant before the flowers are open prevents the weed from seeding and spreading, but it is only of limited value unless carried out over a number of years and accompanied by good grassland management. In some cases cutting can induce development of several heads and the affected plants may persist as perennials. Cut plants should be collected and destroyed as an additional precaution against the risk of seed formation and livestock poisoning.

## **Chemical Control**

### ***Pasture Areas***

Herbicides work best on ragwort in the rosette stage. Ragwort plants become more palatable after spraying and consequently livestock must be kept off treated fields and fodder conservation delayed until all plants are dead and sufficiently rotted down. In these circumstances, spraying should be carried out during late autumn (mid Sept. – mid Nov.) or early spring (mid Feb. – mid Mar.). Either 2.4D or MCPA formulations may be used for spraying during this period however the 2.4D, ester formulation, works best under colder conditions. Any plants surviving a winter spraying operation are very stunted and weak and can easily be eliminated by a second spraying or by pulling.

For MCPA the recommended application rate is 3.5 l/ha of a 500 g/l formulation. For 2, 4-D apply 5 l/ha of a 500g-amine salt/litre formulation, or 3.5 l/ha of 600 g /litre ester formulation. Check the label before use to confirm the dose rate, and use the highest dose recommended on the label. At these rates clover can be killed or

severely damaged, with the autumn treatment being less damaging. 'Clover-friendly' herbicides are less effective on ragwort. Glyphosate (many products) can be applied as a spot treatment on dense patches, but grass will also be killed. However, selective application of Glyphosate by wiper applicators is also possible to plants that have started to extend flowering shoots 10cm above the grass canopy. This method requires multiple passes over a number of years to give satisfactory control as it does not kill ragwort in the seedling or rosette stage.

### ***Non-pasture Areas***

In areas not designated for fodder conservation or grazing by susceptible animals best results are obtained from spraying Mid April-Mid July (up to the early flower bud stage). Spraying at this period destroys the mature plant, thus preventing seed production, and at the same time controls the young plants in the rosette stage, which are present. Formulations of 2.4D and MCPA give satisfactory results in these situations.

While spraying can give excellent results it will not control all ragwort plants. Spraying may also encourage the development of several heads or crowns and affected plants can persist as perennials. Repeated spraying may therefore be necessary, particularly where infestation is severe.

### ***Grazing Management***

Good grazing management prevents the establishment of ragwort in pastures and can also assist in control programmes. Optimum fertility with appropriate stocking rates is recommended.

### **References:**

*An Irish Flora, 7th Ed. D.A. Webb, J. Parnell & D. Doogue. 1996. Dundalgen Press, Dundalk, Ireland.*

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