

## RAGWORT CARE AND CONTROL IN THE FIELD

In 1831 the Cambridgeshire poet John Clare wrote “Ragwort, thou humble flower with tattered leaves, I love to see thee come and litter gold”, the Celts believed that fairies used the Ragwort flower as a vehicle for transit and in the Isle of Man, ragwort is the national flower.

Common Ragwort (*senecio jacobaea*) is also a highly toxic weed which has been the bane of farmers and horse owners for centuries. This noxious weed is especially toxic to horses, but also effects most grazing animals. It contains pyrrolizidine alkaloids which when ingested in sufficient quantities can cause accumulative and irreparable liver damage and digestive disorders. A small intake of ragwort over a long period is often just as damaging as a large amount taken on a single occasion. Young animals are especially at risk. It is estimated that if a medium sized horse ingests 1.0 to 1.5 kilos of ragwort over its lifetime, then the critical toxic level of poisoning is reached. Humans can also be poisoned through contact with bare skin.

Ragwort is a biennial plant that starts to appear from April, with flowering stems produced from June onwards. The stems carry dense flat topped clusters of bright yellow daisy type flowers which produce up to 150,000 feathery “parachute” wind- dispersed seeds. These seeds have a 70% germination rate and can remain dormant in the soil for up to 20 years. Ragwort can also regenerate from root fragments left in the soil. It is this ability of being able to grow in most soil types and conditions that make the control of ragwort such a critical part of pasture maintenance.

The removal of any infestation is based on three main principles – firstly of knowing your enemy, secondly removing it and thirdly of disposing of it in the correct manner.

All horse owners who put their animals out to graze must first study and learn what the common ragwort plant looks like at all stages of its development. This is easily done by research on the web, by reading magazine articles or by contacting the British Horse Society. Once you are confident you are able to correctly identify ragwort, you must begin the task of finding the individual plants.

The identification of the individual plants in your field therefore requires some simple planning and a methodical approach. The field in question must be walked in a criss-cross pattern. This process will need to be repeated throughout the year to prevent re-growth. Although this is usually a boring and laborious task; vigilance early on in the ragwort season will reap huge benefits later. It also helps to identify any other potential pasture maintenance issues that may arise in the field, such as fence repair, control of other weeds and muck removal.

Due to the nature of ragwort, the most effective time to remove the weed is when they first appear and their root system is not yet mature. It is much

more difficult to remove a mature plant in the summer months when the ground is hard and compacted as the extraction of the entire root system is not assured. Once the yellow flower is visible, then removing a mature plant such as this is merely an exercise in crisis control as often the seeds have already been dispersed. These removal tasks must be carried out over at least a two year period as ragwort is a biennial plant.

The removal of the weed itself is split into four main methods; hand removal, use of specialist tools, use of agricultural herbicide and chemical weed killers and cutting. Any removal of ragwort must be undertaken with the correct protective clothing. The minimal protection required is thick gloves, long sleeved tops and long trousers, boots and a mask to avoid inhalation of ragwort pollen or other airborne particles. If ragwort comes into contact with bare skin, the area should be washed in warm soapy water, rinsed and dried.

Pulling ragwort plants must be done before flowering has completed. It is best carried out when the ground is soft and the plant is young. Once summer hardens the ground, the more established root systems are more difficult to extract fully. Once a plant is removed, pouring rock salt down the resulting hole can help kill any remaining roots.

The use of specialist tools can help the removal of ragwort much easier. The tines of the forks are designed to loosen the soil and tease the entire root ball out of the ground without damaging the surrounding ground. The principle behind successfully extracting the weed is to place the tool as close to the root and to push downwards parallel to the tap root system. If this is being carried out on an older plant, the stem is best pushed out of the way to allow the tines to be pushed into the ground at the correct angle. With a younger plant, the leaves must be carefully moved out of the way in order to allow the tool access to the root. The fork should then be pushed fully to its pivot point and then pulled back on to allow the root to be extracted from the soil. The plant can then be removed from the ground prior to disposal. Remember, that the above operations are best carried out early in the season and when the ground is soft.

The use of agricultural herbicides and chemical weed killers are often used for larger infestations. The herbicide or weed killer can be applied mechanically by quad bike or tractor or by hand using a hand sprayer. This latter method is best used for moderate to light ragwort problems and is known as spotting. The herbicide or weed killer is sprayed directly on to the weed to the point of saturation. The plant must be then left to die back. Once the weed has died, it is imperative that all plant debris is removed as ragwort is more palatable to livestock in this wilted state. Do not remove the dead tops too soon as the root is the last of the plant to die, and ragwort can re-grow from the remaining root system. The use of an agricultural herbicide as opposed to a chemical based system may be more advantageous as the field can be re-used quicker, and the active ingredient is classified as non-hazardous.

The final method of removal of ragwort is cutting and is not usually recommended, because it often encourages the weed to disperse its seed or to re-grow more vigorously.

There are several specialist companies who specialise in the treatment and removal of ragwort. If you have a large and persistent problem, it may be a good idea to seek their advice.

Once the ragwort has been removed, it must then be disposed of in the correct manner. The methods available are rotting down, controlled burning and collection. The following advice is for disposing of small amounts of ragwort. For larger amounts you should first contact your Local Authority.

Careful disposal of ragwort is imperative as it can seed after being pulled, dug or cut and there is a high risk of dispersal during transportation. Weeds should only be sealed bags or sealed containers and can be cut up to assist packing.

The waste weed can be rotted down in a garden compost bin with a lid. The bags of weeds should be emptied directly into the container and then covered with grass clippings to help start the bio-degradation process. It is important not to allow the compost to dry out as some root material may not be destroyed or seeds may remain dormant. The bin must be located away from animals and from watercourses and the debris must be allowed to decompose for at least 12 months. If there are any concerns about the residue, then you should speak to your Local Authority who may suggest transporting it to landfill.

Burning of ragwort in an incinerator fitted with a lid and flue can only be carried out where there is a safe area for the weed to be dried. The ragwort must be collected into paper sacks and dried sufficiently to allow incineration. Please check whether there are any restrictions in your area on burning such waste. If you plan to dispose of ragwort in this manner, it is best to get advice from your Local Authority and from DEFRA. ([www.defra.gov.uk](http://www.defra.gov.uk)). Burning on an open bonfire is not recommended as it may allow seeds to disperse.

Finally, small amounts of ragwort can be collected as domestic refuse, subject to approval by your Local Authority. DEFRA suggest sealing the plant in a double plastic sack or placing it into a wheelie bin. It is important that ragwort is not mixed with green garden waste.

If the above advice is followed, then you have taken important steps into providing a safer environment for your horse and help to prevent it from being exposed to the deadly dangers of ragwort.

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