

October - and Ragwort is Killing our Horses

by Derek Smith Ragwort-UK Ltd.

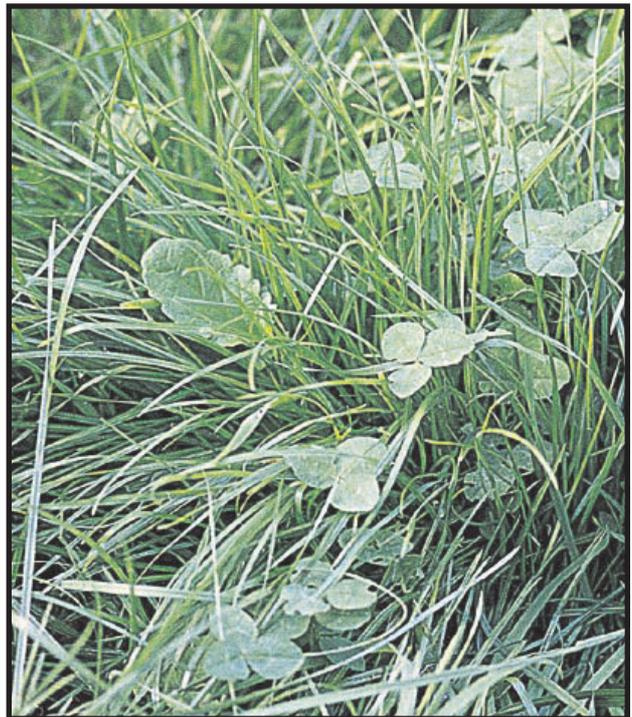
OVER 500 HORSES DIED LAST YEAR FROM RAGWORT POISONING, MORE WILL DIE THIS YEAR AND MANY MORE WILL HAVE THEIR LIVERS DESTROYED TO SOME DEGREE TAKING THEM INEXORABLY CLOSER TO THAT FATAL STATISTIC. (Dr Derek Knottenbelt, Phillip Leverhulme Veterinary Hospital)

If you think, as many do, that the Ragwort season is virtually over, and the ragwort problem has gone for another year - YOU WOULD BE BADLY MISTAKEN. Autumn poses probably the greatest risk to stock from ragwort poisoning, and that is leaving to one side the increasing problem of ragwort contaminated hay.

Land throughout the UK now has an extensive reserve of ragwort seed. Perhaps surprisingly, in many areas densities of many thousands of seeds per square metre are commonplace. Ragwort however is a plant of stealth and this large reserve is its guarantee for future survival. The seeds are very long lived (7 years to 20 years often reported) and to make sure that they do not all germinate next year they have a selective germination mechanism. Seeds can only germinate if they have been in the ground for a certain amount of time and then only if they are exposed to sunlight. This ensures that most of the seed is locked away in safe deposit as ragwort's insurance against extinction.

Most people know that a dense stand of grass is the best defence against ragwort. Certainly, the opposite is true, poor patchy cover is an open invitation to dense ragwort colonisation, but a dense stand of grass is not a guarantee against ragwort. Seeds are in the soil waiting for sunlight to trigger their germination, and there are many mechanisms that will get the sunlight to them, or them to the sunlight.

Hoof damage, urine scorching and rabbit scratches are commonplace and all allow the sunlight to trigger ragwort germination. But in addition, moles, ants and earthworms all move large quantities of soil up into the grass on a daily basis. If the soil contains ragwort seed, germination will be triggered by the sunlight. Look at the moist parts of your grazing among the lush grasses, reaching up through it you will see long slender 'salad leaves' of seedling ragwort.



Hard to spot, ragwort seedling growing in strong grass cover.

Horses do not eat green ragwort, so how can seedling plants ever cause a problem?

These seedling plants have been identified by Ragwort-UK Limited as possibly the greatest risk to stock health, particularly at this time of the year as grass growth rate slows down and stock begin to eat the grazing much closer. Most horses do not eat green ragwort, so how can seedling plants ever cause a problem?

The answer to this question and a valuable insight into the control of ragwort in feeding pastures has come from trials on pasture management carried out by Ragwort-UK Limited.

Continuous low level poisoning has been identified through two routes, both are caused by seedling ragwort plants in good dense grass. Once ragwort germinates it throws up a small single leaf, carried on a long rib to reach the sunlight. It is easy for this single leaf to be bitten off with a mouthful of grass, clover etc and be eaten without its taste being noticed. The ragwort crown will soon send up another leaf and so the problem continues. Staff at Ragwort-UK, have witnessed horses grazing single seedling leaves in this way, and the stock involved was diagnosed by blood tests to have liver damage typical for ragwort poisoning.

The second route is probably even more dangerous, because greater quantities of ragwort can be eaten.

As the ragwort seedling establishes its crown and extensive root system, it throws up three or four long leaves into the grass above it. These leaves are slender but have leaf lobes all the way down the rib to the crown. There is not yet an identifiable 'ragwort rosette' for the stock to stay clear of, only isolated leaves growing through the grass. The leaf is bitten off with a mouthful of grass, but by now there is enough ragwort for the animal to taste it, so the leaf is rejected and dropped to the ground.

Dead ragwort is poisonous even though it has lost its bitter taste.



Dead ragwort leaf waiting to be eaten



Ragwort seedling showing grazing damage

One or two days later, the leaf is dead and has lost its bitter taste. Everyone knows that dead ragwort is poisonous even though it has lost its bitter taste, but your stock do not and the dead leaf is eagerly eaten to play its small but cumulative part in the destruction of your horses liver. Again, staff at Ragwort-UK Limited involved in field trials have witnessed single leaves being bitten off and spat out in this way and have recorded many seedling plants with evidence that several leaves had been removed.

These dangers are magnified as grass growth slows in October and stock graze closer or start grazing long or rough patches.

Seedling ragwort will have germinated throughout the summer, and the seedling leaves will be extremely hard to spot until the classical ground hugging 'rosette stage' is formed. Although once a rosette has formed, accidental grazing is much less likely to occur, dead leaves will still be created by trampling. Once the bitterness has gone from the dead leaves they will also be eaten. Flowering ragwort is a highly visible alert for 2 - 3 months of the year, but staff at Ragwort-UK are convinced that the greatest damage is caused by the seedling plants present throughout the 12 months of the year.

Ragwort poisoning is often called the 'iceberg disease' because the damage is being done bit by bit with virtually no outward signs. Each little ragwort leaf destroys a few more liver cells until in many cases when symptoms become apparent, it is just too late and the horse must be destroyed to save it from a piteous death.

Prevention is the only solution.

Prevention is the only solution. Ragwort seed are already in the soil. Their numbers are increasing year on year and even when further seed production is eventually stopped, the seed store now present will remain viable for many years. Earthworms, ants and hoof damage will continue to trigger germination virtually all year round.

You cannot remove the seed and you cannot prevent it from germinating. Your only defence is to inspect your pastures regularly and remove the seedlings the moment they show. One trial paddock controlled by Ragwort-UK yielded over 200 seedlings per acre every week for over 2 years with only a slight reduction through the winter months.



Ragwort seedlings lifted from strong grass cover
- seedlings range from 5cm to 30cm tall.

Walk every inch of your paddock now. Seedling ragwort is not easy to spot until you 'get your eye in'. If you only have a few plants, lift them with the Lazy Dog tool or an equivalent, firm down the loosened soil and dispose of the seedlings carefully. They might only have a single leaf or be less than an inch across, but they all have to come out to safeguard your horses.

To safeguard yourself, **never handle ragwort with bare hands**. Dr Derek Knottenbelt (Leverhulme Veterinary Hospital) has shown that ragwort poisons can pass straight through your skin and attack your liver, so always wear suitable gloves to protect yourself.

If there are too many seedlings to lift you may have to consider herbicidal sprays. Despite the damage sprays cause to the land and the length of time you must keep stock off the grass until the seedlings have rotted (typically 3 - 6 weeks), spraying with a 2.4D ester based herbicide is often the only practical way of bringing seedling numbers down to the level that they can then be controlled by regular weekly inspection and lifting.

Seedling ragwort is an insidious killer. It is growing 12 months of the year and until the seedlings establish a crown and rosette structure, they are very hard to spot and remove. For the past five years, ragwort seed production has increased inexorably. Ragwort seed blows for many miles guaranteeing that every piece of land gets its share of the burden. Doubtless you did not create the problem, but equally doubtless, you are the recipient of it, and if you do not aggressively and persistently remove ragwort from your grazing, your horses will be the ones that pay the final price with their lives, becoming yet another part of that growing statistic.

It is a daunting task - but get out there now and check for seedlings.

Derek Smith is the Managing Director of Ragwort-UK Limited, a company established to produce biological control agents (Cinnabar caterpillars) to prevent ragwort seed production.

Ragwort-UK Limited recognises however, that stopping further seed production is only half of the fight. The huge seed reserves now in the soil will demand a range of interventions and control measures in order to minimise the toll of death and disease that ragwort is poised to deliver to both livestock and to man. Unfortunately one of these vital measures is the labour intensive task of inspecting and cleaning our pastures regularly throughout the whole year.