

Weeds and plants toxic to equines

There are many plants that are dangerous for horses to eat due to them containing compounds that can be toxic to horses to varying degrees. In some cases the toxins can slowly build up and poison the animal over a period of months without any outward signs being seen by the carer.

Equine carers should be constantly vigilant for poisonous weeds and plants invading their grazing and these should be eradicated upon identification. Poisonous trees should be fenced off appropriately to avoid equines consuming these or their fallen leaves, fruits and seeds. Horses with access to sufficient grazing will generally avoid grazing on toxic plants as these are less palatable than non-toxic species. This cannot, however, be guaranteed and in areas of poor grazing the likelihood of equines ingesting toxic plants within the sward is increased. It is important to note that toxic plants often become more palatable when dried and, as such, conserved forage such as hay and haylage should be checked to ensure it is free from toxic plants before being fed to equines.

Toxic plants may be eradicated via the following means:

- **Spraying with a herbicide** – this method requires the plant to die before removal and as such equines must be excluded from the area before spraying and remain excluded until the dead plants are removed. Careful removal of dead plants is required as they may be more palatable once dead. This method may be undertaken by spot treatment of toxic plants or blanket spraying. Equines must be excluded from sprayed areas for a specific period, depending on the herbicide, which is weather dependant. Please check the exclusion period with the herbicide manufacturer. Be aware of the risk of drift or overspray into adjacent paddocks.
- **Physical removal** – digging up of the plant and its roots and careful removal and destruction/disposal.

Toxic plants to look out for:

Ragwort – *Senecio jacobaea*

Ragwort is one of the most common causes of poisoning of horses in the UK. This yellow flowered plant with lobed leaves grows to around 0.75 metres in height and flowers from July to September. This plant is bitter to taste but becomes more palatable when dry. Ingestion can cause significant, permanent liver damage (called seneciosis) which can be difficult to identify, with some equines losing condition and appearing depressed whilst others will show no signs until significant damage to the liver has already occurred.

A blood test or liver biopsy can help to identify liver damage, however once the liver is severely damaged conditions such as photosensitisation, jaundice, seizures and dementia can occur. There is no cure for ragwort poisoning.

Steps can be taken to reduce ragwort growth, these include:

- Avoiding overgrazing of pasture.
- Avoiding land becoming poached (muddy and broken-up).
- Fertilise land regularly as ragwort flourishes in poor soil.
- Spray growing ragwort 'rosettes' with herbicide.
- Pull out plants, including their roots, preferably with a custom-designed fork. Avoid simply cutting them down as this is not effective; they will quickly regrow. As dried ragwort is more palatable to horses, remove pulled ragwort from the land and burn it.
- It is advisable to wear suitable gloves when direct contact is made with plants.
- Ask neighbours or the local council to remove ragwort from neighbouring land.



RSPCA



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Groundsel – *Senecio vulgaris*

This plant contains the same toxic component as ragwort but in smaller quantities. If large quantities are present or grazing is of poor quantity and/or quality, remove from grazing areas as per ragwort.



"Senecio vulgaris" by amco002 is licensed under CC BY-SA 2.0



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Laburnum – *Laburnum anagyroides* Broom – *Cytisus scoparius* Lupin – *Lupinus*

These plants all come from the same family of legumes and contain compounds which are fatal if ingested even in small quantities. The seeds are the most toxic part of the plants however all parts can be poisonous to equines. Laburnum poisoning causes convulsions and potential coma prior to death whereas lupin causes death through respiratory failure or lupinosis, which is a fungal disease causing liver failure.

Laburnum



"Fabaceae - Laburnum anagyroides-1" by Ettore Balocchi is licensed under CC BY 2.0

Broom



"Cytisus scoparius" by anro0002 is licensed under CC BY-SA 2.0

Lupin



"Lupins" by tuchodi is licensed under CC BY 2.0

Bracken – *Pteridium aquilinum*

Usually found on commons, hillsides and moorland this plant contains the toxin thiaminase which destroys vitamin B1. The resulting deficiency can result in weight loss, weakness, uncoordinated movements and sometimes internal haemorrhaging when ingested in large quantities. Removal from pasture and the administration of a vitamin B1 supplement should enable recovery. Pasture fertilisation and the addition of lime can help reduce bracken growth in pasture as will twice yearly cutting back of the bracken.



"Pteridium aquilinum (bracken fern)" by brewbooks is licensed under CC BY-SA 2.0

Buttercups – *Ranunculus*

These plants are toxic in large quantities as they contain an irritant called protoanemonin. Most horses find buttercups unpalatable and as a result poisoning is rare. The irritant is destroyed through the drying process and therefore the presence of buttercups in hay presents no issue. A good fertilisation protocol will reduce buttercup density in the sward when coupled with chemical spraying before the plants flower.



"Highwood Ash, Mill Hill, London" by Christine Matthews is licensed under CC BY-SA 2.0

Hemlock – *Conium maculatum*

Another plant containing toxic compounds in which all parts of the plant are poisonous with the seeds containing the highest toxin levels.

Whilst similar in appearance to other members of the parsley family, it can be identified through its smooth, purple blotched stems and unpleasant smell. Hemlock is fatal even in small quantities and causes paralysis followed by death.



"Wildflowers - Hemlock - Conium maculatum" by Mick E. Talbot is licensed under CC BY 2.0

Water dropwort – *Oenanthe crocata* Cowbane – *Cicuta virosa*

Other members of the same family which can cause fatal poisoning include water dropwort and cowbane whose sappy stems can prove attractive to equines in dry weather conditions.

Hemlock, water dropwort and cowbane can be difficult to distinguish from harmless cow parsley; further guidance to distinguish these plants can be found online.

Water dropwort



"Hemlock Water-dropwort (*Oenanthe crocata*)" by Rictor Norton & David Allen is licensed under CC BY 2.0

Cowbane



"Velika trobeljka (*Cicuta virosa*)" by brek74 is licensed under CC BY-SA 2.0

Foxglove – *Digitalis purpurea*

Unlike buttercups, foxgloves remain toxic when dried in hay. Symptoms of foxglove poisoning include contracted pupils, convulsions, respiratory difficulty and ultimately death. As little as 100 grams of foxgloves ingested can be fatal.



"Foxgloves (*Digitalis purpurea*)" by wallygrom is licensed under CC BY-SA 2.0

Hard Rush – *Juncus inflexus* Horsetails – *Equisetum*

These plants are mainly found in wet soil and are fairly unpalatable to equines but they are highly dangerous when dried in hay. Horsetail poisoning presents as muscle wastage and loss of muscular control.

Hard Rush



"Juncus inflexus" by anro0002 is licensed under CC BY-SA 2.0

Horsetails



"Field horsetail (*Equisetum arvense*)" by Evelyn Simak is licensed under CC BY-SA 2.0

Toxic trees and hedges to look out for:

Yew – *Taxus baccata*

This is the UK's most toxic plant for equines but it is easily identifiable by its evergreen foliage and red berries. Every part of this tree is poisonous whether dried or fresh and just a mouthful can cause death within minutes. Symptoms include trembling, respiratory difficulties and collapse prior to death and there is no cure. Trees should be removed or securely fenced off with enough perimeter to completely ensure that any leaves or berries dropped cannot be reached by grazing equines.



"Yewtree(s)" by Eskling is licensed under CC BY-ND 2.0



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Oak – *Quercus*

The leaves of the oak tree are poisonous; however far more poisonous are the acorns produced by this tree. Oak trees should be fenced off especially in Autumn when horses may forage on leaves or fallen acorns, causing them to ingest tannic acid which can cause colic, dullness and lack of appetite. Any acorns found on grazing land should be picked up.



"Baby acorns" by Rhian vK is licensed under CC BY 2.0



"acorns" by brx0 is licensed under CC BY-SA 2.0

Sycamore – *Acer pseudoplatanus*

Sycamore seedlings and the 'helicopter' seeds cause fatal poisoning of equines. The toxin hypoglycin A found in the seedlings can cause muscle damage affecting the ability of the horse to stand and breathe normally. Signs include trembling, lethargy, stiffness, sweating and difficulty breathing escalating to sudden death. Areas with sycamore trees should be securely fenced off to prevent access by equines; this area will need to be of considerable size as the seeds and seedlings can spread over 100 metres from the tree. The trees can easily be recognised by the presence of 'helicopters' and distinctive five pointed leaves. The disease is more common in Autumn and in bad weather when more 'helicopters' are falling.



"Sycamore Leaves" by garyknight is licensed under CC BY 2.0



"Sycamore seeds" by judy dean is licensed under CC BY 2.0

Rhododendron – *Rhododendron*

Mainly found in gardens and woodland this shrub is highly toxic to equines causing respiratory failure. It can be found in field boundaries adjoining housing areas and should be fenced off to avoid equines reaching it.



"Back-yard Beauties: Rhododendron" by Tobyotter is licensed under CC BY 2.0

Deadly nightshade – *Atropa belladonna*

This plant is usually found in hedges and has characteristic 'lampshade' flowers and brown and purple berries. If ingested it causes narcosis (drowsiness and sometimes unconsciousness), loss of coordination, and sometimes convulsions and death. The degree of effect on the horse depends on the condition of the animal.



"belladonna. Atropa belladonna." by gailhampshire is licensed under CC BY 2.0



"Atropa belladonna" by amro0002 is licensed under CC BY-SA 2.0

Laurel – *Prunus laurocerasus*, **Privet** – *Ligustrum ovalifolium* **Box** – *Buxus sempervirens*

These plants are usually found in suburban areas and can be highly toxic, with ingestion of small quantities of laurel and box being potentially fatal. Animals in poor condition are more susceptible to poisoning. Privet requires consumption in larger quantities to be toxic.

Laurel



"Prunus laurocerasus cvs." by brweldon is licensed under CC BY 2.0

Privet



"Ligustrum ovalifolium 'Aureum'" by wallygrom is licensed under CC BY-SA 2.0

Box



"Buxus sempervirens" by www.gartencenter-seebauer.de is licensed under CC BY-SA 2.0