

Catsear : a poisonous plant

Catsear is a perennial herbaceous plant with yellow flowers like those of the dandelion. It is poisonous to horses. Ingesting catsear causes the appearance of Australian stringhalt. It is thus important to learn to recognise it so as to prevent the risk of poisoning to grazing horses.

by **Nelly GENOUX** | 09.07.2018 |

Technical level   



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How to recognize catsear ?

Catsear (*Hypochoeris radicata*) is an extremely common perennial herbaceous plant, with yellow flowers from the daisy family (Asteraceae), and from the same family as the dandelion.

Leaves

Arranged in a low-lying rosette the leaves are :

- **Simple** ;
- **With multiple lobes** : each half leaf has several rounded lobes ;
- **Hispid** : Sparsely covered in hairs on both sides.

Their size can vary from a few centimetres to a couple of dozen centimetres in length.



Flat lying rosette of catsear multiple lobed hairy leaves
© N. Genoux

Stems

Catsear has multiple branching flower stems topped by a capitulum (inflorescence resembling a single flower, but in fact composed of numerous tightly packed florets). The stems do not have leaves, but sometimes have scales. They can grow to between 30 to 70 cms in height.



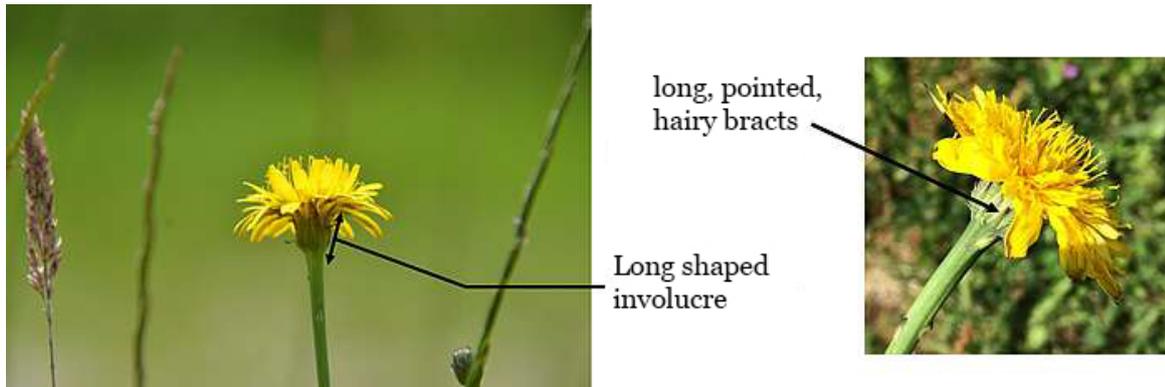
A capitulum of yellow florets at the end of each branch of the stem © N. Genoux

Flowers

The flowers are yellow, and arranged in 20 to 40mm wide capitula at the end of each branch.

The involucre (part surrounding the base of the flower) is long. It is composed of long, hispid bracts, pointed at the extremity and irregularly distributed. Bracts are a sort of « small intermediary leaf » between the real leaves and the petals,

they are present around the flower, which they partly encompass before flowering. The florets are longer than the bracts.



Long shaped involucre composed of long, pointed, hairy bracts. | Capitulum of yellow florets © N. Genoux

Fruit



The fruit of cat's paw are rough, long shaped, orangey-brown achenes with a round cross section. They are about 4-7mm long, tipped with a circle of feathery hairs and a long narrow beak. These features aid in wind dispersal, and allows the plant to easily colonise the more sparsely covered fields.

The fruit (achenes) from the flowers © N. Genoux

Habitat



Cat's paw is adapted to poor soils, and dry conditions © N. Genoux

Very resistant to drought thanks to its **deep taproot system**, **cat's paw** is more often found in **dry areas**. Therefore it is widely present in the South of France. However it has progressively colonised other areas of France, and is now widespread on most of French territory. It is present in a wide variety of soil types : lawns, gardens, fields, cultivated land, roadsides, banks and sand dunes.

Its capacity to develop in poor soils gives it a competitive edge over grass grazed by animals (grass and clover...) when the soil is not very fertile. It is also abundant in poor quality pastures, where grass is scarce , and in overgrazed fields, especially during a dry period.

Life cycle

Catsear generally appears all through the warmer weather, **from the end of Spring/ beginning of Summer** (May/June) to the end of Summer/ beginning of Autumn (September/October), especially after a dry period.

It is a perennial plant, and therefore survives through the winter as a rosette of low lying leaves, before flowering again in the following Spring.

When does poisoning occur ?

The **deep taproot system of catsear**, enables it to **resist particularly dry summers**, as opposed to annuals which will suffer and dry up.

Horses will usually ignore the plant, but in dry conditions it may become attractive when grass becomes scarce. Some horses then start to actively seek it out and to eat the flowers and stems, and even in some cases the leaves. It appears the plant has an addictive effect, as once a horse has tasted the plant, they come back all the more readily, and become « addicted ».

Australian stringhalt

It is solely **ingesting catsear** which is **toxic to horses**. Ingesting the plant is one of the factors involved in the appearance of **Australian stringhalt**, an atypical movement characterised by involuntary hyperflexion of one or both hind legs. France saw an increase in cases of this affliction in 2003, year when a heatwave and subsequent dry period saw increased development of catsear. The common factor in the outbreak of Australian stringhalt, was the presence of the plant in the pastures. The toxic principle of the plant is still unknown, but the aetiology of the Australian stringhalt has shown a link between ingesting the plant, and the appearance of the affliction.

This starts off with the horse having difficulty giving its hind feet, turning, moving backwards, and loading in a trailer for example. In extreme cases the horse moves like a rabbit with its hind legs. (see fact sheet on Australian stringhalt)



Not all horses are partial to the plant (so they will not all eat it) ! This explains that, in a same field, where catsear is present, some horses may be affected by Australian Stringhalt, while others are not.

Prevention

Prevention measures remain the best way of limiting the development/proliferation of catsear. This means good pasture management, and good upkeep of land for grazing and or for production of hay.

Good pasture management

This entails preserving the quality of grazing land so that catsear does not have the chance to develop. When the grass is thick and of good quality, weeds like catsear do not develop as readily as when the cover of grass is sparse, therefore the following measures are recommended :

- **Avoid overgrazing**, by reducing the grazing load (number of horses/ha) and increase the pasture's resting time.
- **Restrict grazing in dry conditions**
- **Cut the roughs** (places the horses do not graze) so as to promote better regrowth of grass.

Good upkeep of fields

- **Over sow** with a grass mix in places where the cover is sparse, a field can even be ploughed and replanted when it is too damaged (> 20 % of the surface with a poor cover of grass, or a low ratio of grass/weeds)
- **Chemical control** : when the area is invaded with catsear, a chemical weedkiller for dicotyledons can be used.
Localised spraying plant by plant works best, as this restricts the use of weedkillers to the areas or to the plants to be treated.
- **Eliminate any remaining waste** after treatment, and do not place on the compost or on the manure heap. This could lead to disseminating any seeds or fruits of the weeds when fertilising. The best course of action is to burn them.
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The use of weedkillers must be carried out by certified professionals (see the zoom on Certiphyto below) and in the right conditions of temperature, humidity, and favourable winds. When the plant is in full leaf is the best time to treat.



Zoom on Certiphyto

Certiphyto is an individual certification for safe usage of phytopharmaceutical products (weedkillers, insecticides, fungicides). Any professional person (farmer or agricultural worker) working with these products is concerned by French and European regulations. The



European directive (2009/928/CE) provides for an initial and continuous training session to acquire and update knowledge of usage of phytopharmaceutical products. Certiphyto is compulsory for any user since 1st October 2014. In France you can contact the DRAAF of your area ((Direction Régionale de l'Alimentation, de l'Agriculture et de la Forêt).



Note : Because of its deep taproot system, catsear is very difficult to pull out by hand. Its pivoting roots are so well anchored into the soil that it is almost impossible to uproot it by pulling at the base of the rosette of leaves. When pulled in this way, only the leaves and stems come away, so the plant is not entirely destroyed, and will grow again.

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