



Browsing trees for animal health: How browsing on trees can help animals to manage internal parasites and provide pain relief

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Silvopastoral practices offer domestic animals multiple benefits including access to shade and shelter. If able to, farm animals will readily browse trees or hedgerows which are within their reach.

The Levels of nutrition in browse can be comparable to other feed crops grown in the same environment and trees can be a good source of minerals.

As a defence mechanism plants produce chemicals known as Plant Secondary Metabolites (PSMs) including bitter tasting tannins. At high concentrations, tannins can reduce feed intake.

However, both tannins and copper inhibit the development of gastrointestinal parasites resulting in both fewer eggs being laid and a reduction in the number hatching.

All tree leaves contain tannins, hazel and beech are good sources of copper. Tannins also increase the availability of higher quality, rumen-bypass protein in the diet resulting in increased resilience to parasite infection.

A second PSM, salicylic acid, is a recognised pain suppressant with anti-inflammatory and mild antibiotic properties, trees such as willow and poplar are good sources of salicylic acid. Gastrointestinal parasites cannot develop resistance to tannins, protein or copper so these methods of parasite control will continue to offer effective aids to animal health. They offer a valid alternative to chemical anthelmintics and avoid the associated increasing problems of resistance.

It is not always easy for humans to recognise when animals are in pain. Enabling animals to self-medicate not only alleviates pain but can alert stockpersons to potential health problems.

Offering domestic animals access to browse can improve animal welfare by enabling them to manage their own health to a greater degree. These systems require sufficient access to trees and the trees need time for regrowth.

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