

DID YOU KNOW?

Studies have shown that horses prefer sugar solutions to tap water, although this isn't the healthy option!

Equine

TASTE

senses

At some point, we've all given our horses something nice to eat, only for them to turn their nose up at it. Vet Sophie Wilkinson from Fellowes Farm Equine Clinic explains why they're so fussy

Ever noticed your horse pulling a face of disgust, while spitting out the contents of his mouth? That's his sense of taste, known as the gustatory sense, kicking in. It's not quite as critical for survival as the other senses, however, along with his sense of smell, it helps to prevent him digesting anything harmful. This is important because your horse is unable to be sick, so he's unable to remove harmful substances from his body once they've been swallowed.

As an example, many plants that are poisonous to horses, such as ragwort, are thought to have a bitter taste that horses find unpleasant, so they don't usually eat them. However, their sense of taste isn't completely fail-safe because horses do sometimes eat harmful things – for example, they will eat ragwort if they are hungry and there is little else to eat, or if it has been cut and dried, making it taste less unpleasant. So although he has a built-in mechanism to protect him, it's important to make sure your horse doesn't have access to anything poisonous.

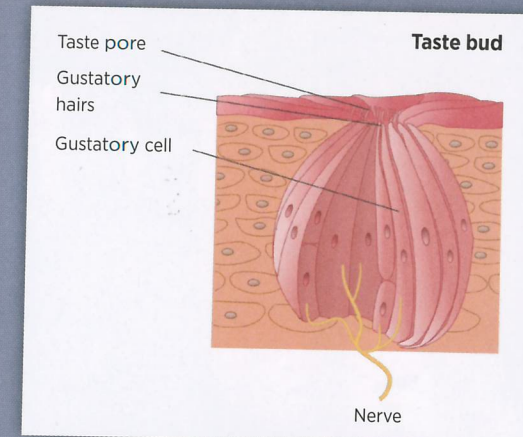
Our expert

Sophie Wilkinson BVetMed MRCVS joined Fellowes Farm Equine Clinic, a member of XLEquine, in 2014. She has a particular interest in equine lameness and surgery.

DID YOU KNOW?
Horses prefer the taste of young plants to mature ones.

The gustatory system

This is how your horse's gustatory system helps him decide whether something is safe to eat...



Tongue

When food and drink enters the mouth, it passes over the **tongue**. If it has an unpleasant taste, it's simply dropped out of the mouth rather than being swallowed, when it can no longer be rejected from the body.

Horses' **taste buds** are similar to ours and are situated on the tongue, soft palate and back of the throat, although the majority of them sit towards the back of the tongue. Taste buds are onion-shaped and measure approximately 0.2mm

across. They contain gustatory cells and each of these cells has a gustatory hair at the end, which protrudes through a little pore in the taste bud. The gustatory hairs detect taste chemicals and the gustatory cells send nerve impulses to the brain.

The **brain** processes these impulses and assesses the information, then fires impulses back to the muscles in the mouth and tongue telling them whether to ingest it or spit it out. ➤

DID YOU KNOW?

A study that assessed the impact of flavours on food selection found that the most readily consumed flavours were fenugreek, banana, cherry, rosemary, cumin, carrot, peppermint and oregano.

DID YOU KNOW?

Your horse's sense of taste is so sensitive that he can even taste subtle differences in the mineral content of water. This can lead him to not want to drink water away from home, which can be problematic if you travel him often. However, if you flavour water with apple juice or specially-designed water flavourings and get your horse used to it at home, this will help you get him to drink different water.





Your horse is likely to help himself to salt when his body needs it

Taste preference

Your horse spends more time eating than anything else, so he uses his sense of taste a lot. Because horses are cautious about consuming something unsafe, they can be very picky about their food – he'll reject anything that tastes unusual to him, even if you've provided him with something that's perfectly safe to eat.

Researchers don't know a lot about what horses taste, but it's assumed that they share the same four basic tastes we do – sweet, sour, salty and bitter. Although all horses are individuals and have their own preferences, in general they prefer sweet and salty flavours, and dislike bitter or sour tastes.

It's often believed that horses will select foods containing the nutrients they are lacking, known as nutritional wisdom, but several studies have been carried out to try to prove this and the evidence is lacking, with the exception of salt. So if you leave a salt lick out for your horse, he is likely to use it when his body requires salt. ■

DID YOU KNOW?

Humans have 8,000-10,000 taste buds, whereas horses have approximately 25,000.

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A study has discovered that horses show specific facial expressions when they eat things they like and don't like. When the horses in the study ate something sweet, they bobbed their heads, had relaxed, forward ears and licked their lips with their tongue only sticking out a little way. When the horses ate something bitter, they extended their heads forward, gaped their mouths open, pulling their lips up, had their ears back and stuck their tongues right out.

