

A fear-reducing pheromone based on natural excretions

By Dr Mac

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The calming effect of equine-appeasing pheromone offers benefits to horse, handler and rider, says Dr Mac.



A horse may need to be desensitised to certain obstacles if you hope to use it in competition.

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Being prey animals, horses react instinctively to dangerous situations with rapid avoidance behaviour. This includes backing up, rearing and shying, all of which are classified under the general heading of 'fear' during breeding or training. Long-term fear can induce stress and anxiety.

Avoidance behaviour holds both advantages and disadvantages in a ridden horse. If you're galloping across a field and your horse avoids a large hole in the ground that you haven't seen, that's an advantage. However, you could be eliminated from a competition if your horse ducks away from a jump.

Fearfulness is to a large extent inherited. In France, breeding horses are routinely exposed to a set of tests to measure their fear of strange obstacles. In one of these tests, workers hang a long, fringed curtain in front of a stable door, then measure how

long it takes for the horse to overcome its fear and be led through this curtain into its stable.

Fear-associated avoidance reactions can be alleviated either with neuroleptic drugs or with specific training based on behaviour modification. The medication can have a calming effect, but it can also produce long-term side effects. In addition, it cannot be used during competitions due to anti-doping regulations.

Behaviour modification works well for specific, identified problems; however, the horse may still overreact to new or strange situations at a show, or when being transported in a horse box.

Pheromones

A relatively new approach is the use of pheromones, which are natural hormones excreted by animals that have an effect through the sense of smell. Synthetic calming pheromones to calm pets during a thunderstorm, for example, are already commercially available. This technique of calming animals is called pheromotherapy.

The pheromone excreted by a mare to calm a newborn foal is known as equine-appeasing pheromone (EAP). Analysis of its composition has led to a synthetic analogue. Using the fringed curtain test described earlier, researchers discovered that when EAP was sprayed onto the nostrils of a horse, the level of fear and the time taken to overcome that fear was significantly reduced.

Fear was measured using reactivity

to the curtain. The intensity or level of fear varied from "calm" (no reaction) to "signs of fear" (hesitation, head raised, blowing through nostrils), and then to "shy" (the horse panics and shies away from the obstacle). Administering the EAP into the nostrils of these horses reduced both the fear reaction and the time taken to walk through the curtain obstacle.

EAP is now commercially available in South Africa. Being a fluid, it can be administered into the nostrils of a horse just before an anticipated stressful situation, such as when a young horse is being trained to accept a saddle and rider. Other stressful situations could include horsebox transportation; a jumping or dressage show; firecrackers or thunderstorms; or a move to a new stable yard.

It may also be possible to use the product when capturing and transporting wild zebra, by spraying it into the box in which they are transported.

Limited stocks of EAP have been supplied to veterinarians in South Africa and the product should be commercially available before long.

Dr Mac is an academic, a practising equine veterinarian and a stud owner.