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*Tarps, Bridges and Bags! Oh My! Investigating the Habituation Effects of Novel Stimuli on Equine Heart Rate, Behavior and Learning Retention*

Developing specific training methods for reducing flight reactions and fearfulness is crucial for the safety both horse and rider. My project's purpose was to test the effectiveness of habituation training on equine behaviors, memory retention and heart rate. Initial heart rate was taken before testing to obtain baseline. Handler then walked horse to first of three novel stimuli where student researcher obtained heart rate after horse has observed first stimulus. Researcher then timed training session while handler worked with the horse and stimulus. Student researcher recorded heart rate and avoidance behaviors during session. Training session did not exceed 10 minutes and ended on a positive trial. This was done 2-4 times a week until horse was habituated to each stimulus. Horses were considered "habituated" when 7 out of 9 avoidance behaviors were resolved. Horses were then retested at 2, 6, and 12 weeks after habituation. This study showed that both horses, once fully habituated to the three stimuli, were able to retain training effects over time. It is this researcher's opinion that these trained horses, when faced with unexpected stimuli, will stop and listen to their handler/rider and not act upon their fight or flight instinct as some would believe.