

Table S1. Behavioural Assessment Criteria.

Indicator	Criteria
General attitude of the equid at a distance. Assessor observes the equid from a distance of 3-5 metres before approaching.	<ol style="list-style-type: none"> 1) At ease – Relaxed, calm and/or resting. 2) Alert – Actively interested in surroundings. Responsive to environmental stimuli. Ears moving, eyes open, movement to keep away flies. 3) Apathetic – depressed and withdrawn. Lack of response to surroundings, head lowered, eyes may be closed, lack of movement to keep away flies. 4) Agitated – Aggressive and hyper-reactive to stimuli.
Response to observer approach Assessor approaches the equid's head at an angle of 20° (rather than directly in front of the equid). Assessor stops 30cm from the equids head and records reaction at the time of stopping.	<ol style="list-style-type: none"> 1) Friendly – head turns towards the assessor. 2) Does not move – no reaction to assessor presence. 3) Turns head away – moves head away from assessor. 4) Turns whole body away - moves entire body away from assessor 5) Aggressive – flattens ears, attempts to bite or kick assessor.
Response to walking down the side of the equid Assessor walks alongside the equid without touching it, from the head to the rear at a distance of 30cm from the equid.	<ol style="list-style-type: none"> 1) Positive – calm and stationary, ears rotate towards the assessor, maintains contact with assessor. 2) Neutral – No reaction to the movement of the assessor. 3) Negative – avoidance responses, ears flattened, attempts to flee, trying to bite or kick assessor.
Tail tuck Assessor records whether equid (donkeys and mules only) shows a tail tuck response.	<ol style="list-style-type: none"> 1) Absent – tail relaxed 2) Present – clamps or tucks tail in hindquarters
Head and neck position Assessor records the position of the equid's head and neck.	<ol style="list-style-type: none"> 1) Head above withers 2) Head level with withers 3) Head lower than withers
Ear position Assessor records the position of the equid's ears.	<ol style="list-style-type: none"> 1) Both ears forwards 2) Both ears facing sideways 3) Both ears backwards but not flattened 4) Both ears flattened towards neck 5) Combination – ears in different directions
Chin contact Assessor raises a cupped hand towards the equid's chin and if contact is accepted, touches the chin.	<ol style="list-style-type: none"> 1) Accepts chin contact 2) Avoids chin contact
Movement of the equid's tail	<ol style="list-style-type: none"> 1) Hanging still

Assessor records tail movement	2)	Swishing
Response to external stimuli		
If assessor had observed response to environmental stimuli during assessment this was recorded, if not assessor clapped hands above head and recorded the equid's reaction.	1) 2)	Response to stimuli present Response to stimuli absent
Signs of fear and distress present	1) 2) 3) 4)	None Showing the whites of the eyes Unpredictable or sudden movements Sudden startle responses when standing quietly – rapidly lifting the head
Assessor recorded any other behavioural signs of distress or fear observed during the assessment.	5) 6) 7) 8)	Aggressive behaviour – ears flattened, attempts to bite and/or kick Trembling Head shyness – the equid avoids any contact with its head Complete withdrawal
Behavioural signs of insect nuisance	1)	Number of behaviours observed –
Assessor counts the number of behavioural signs of insect nuisance during one minute		behaviours include head shaking, tail swishing, foot stamping & skin flickering.

Table S2. Physical Assessment Criteria

Indicator	Criteria
Harmful Practices Assessor examines the equid for signs of harmful practices that may affect welfare	1) None 2) Signs of hot brand 3) Signs of firing 4) Signs of limb tethering or hobbling 5) Signs of amputations or mutilations including ears, tail and nostrils 6) Signs of the use of live serrata or metallic chains in the noseband 7) Other
Body Condition Score Assessor examines the equid by observation and touch to assess body fat and condition. No half measures were included	1) Very thin/Poor – ribs, spine and hips prominent, pelvis hollow 2) Thin/Moderate – ribs, spine and hips visible, pelvis flat 3) Ideal – spine just visible, pelvis slightly rounded 4) Fat – spine not visible, pelvis rounded 5) Very fat/Obese – neck convex, pelvis rounded, 'gutter' along spine.
Indicators of the presence of endo or ecto-parasites Assessor examines the equid's skin and coat for signs of parasites.	1) No indicators 2) Signs of endo-parasites 3) Signs of ectoparasites – flies 4) Signs of ecto-parasites – midges 5) Signs of ecto-parasites - lice 6) Signs of ecto-parasites - ticks 7) Signs of ecto-parasites - other
Skin System alterations	1) No alterations

Assessor examines the equid's skin for signs of alterations.	2) Open wounds 3) Scars 4) Alopecia 5) Sarcoids 6) Swellings 7) Other
Lameness Assessor asks the owner to walk their equid a few paces and observes the equid's movement.	1) Severely lame – unable to walk or lying, unable to stand. 2) Lame but still moving 3) No lameness
Other signs of illness Assessor notes other clinical signs of illness not previously recorded.	1) Nasal discharge 2) Eye discharge 3) Signs of diarrhoea 4) Unhealthy coat 5) Significant discharge from penis or vulva 6) Abdominal pain 7) Other
General Health Status Taking into account observed health indicators assessor scores the general health of the equid.	1) Good 2) Fair 3) Poor
Thermal Stress Assessor records any physical symptoms of thermal stress.	1) No indicators 2) Indicators of cold stress – high respiration, shivering, abnormally coloured mucous membranes. 3) Indicators of heat stress – sweating, high respiration, open nostrils.