MINIMUM WELFARE GUIDELINES FOR THOROUGHBRED BREEDING

Prepared by the International Federation for Horseracing Authorities, the International Stud Book Committee and the International Thoroughbred Breeders' Federation

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This document provides recommended minimum welfare guidelines for everybody involved in Thoroughbred breeding

DEFINITION OF HORSE WELFARE

Horse welfare is the physical and mental state of a horse in relation to the conditions in which it lives and dies. A horse experiences good welfare if it is healthy, comfortable, well-nourished, safe, is not suffering from states such as pain, fear and distress and is able to express behaviours that are important for its physical and mental well-being. Good horse welfare requires disease prevention and appropriate veterinary care, shelter, management and nutrition, a stimulating and safe environment, humane handling and when necessary, humane euthanasia.

A useful tool in devising minimum horse welfare guidelines is the "Five Domains Model" of animal welfare. This model assists in defining optimal and minimal provisions, and identifies a range of husbandry, veterinary and equitation impacts on horse welfare. The aim is to reduce avoidable negative experiences and ensure horses enjoy a "life worth living" at all stages of life. The five domains are:

1. Nutrition – enough water and food, balanced and varied diet.
2. Environment – comfortable and safe environment.
3. Health – wellbeing and fitness, injuries and ailments appropriately treated.
4. Behaviour – able to express natural and rewarding behaviours.
5. Mental or affective state – comfortable in environment, sociable contact and bonding with other animals, close bond between horse and human.

INTRODUCTION

The International Federation of Horseracing Authorities (IFHA) publishes the *International Agreement for Breeding, Racing and Wagering* (IABRW) which brings together a series of articles, appendices and guidelines setting out recommended best practices for racing, stud book administration and wagering, common to all jurisdictions.

The IFHA, in its role to promote good regulation and best practices internationally across horseracing, recognises the central role played by the horse itself and the importance of its welfare.

The IFHA also recognises the diversity of climatic, cultural, political, legislative and other perspectives that underpin approaches to animal welfare around the world. Accordingly, it has adopted a number of broad principles of racehorse welfare for implementation by the IFHA's members in the form of local guidance relevant to their jurisdiction to ensure racehorse welfare. Similarly, the IFHA seeks to include principles and policies for the welfare of breeding horses, young stock and horses retired from racing and breeding for implementation by Stud Book Authorities and Breeders' Representative Bodies.

The IFHA refers to the International Stud Book Committee (ISBC) all matters involving the definition and recognition of Thoroughbreds for purposes of racing, breeding and the facilitation of international trade of Thoroughbreds for breeding and racing. The IFHA refers to the International Thoroughbred Breeders' Federation (ITBF) all matters involving the breeding of Thoroughbreds for purposes of racing, breeding and international trade of Thoroughbreds, as well as matters involving Breeders' Representative Bodies.

Article 12 of the IABRW describes the principal attributes which define a Thoroughbred, including:

A. QUALIFICATION

1.1: The horse must be the product of a mating between a sire and a dam, both of which are recorded in an approved Thoroughbred Stud Book or either or both must have been promoted from a Non-Thoroughbred register under the terms set out in Article 13.

2.1: The Thoroughbred must be the result of a Stallion's mating with a Mare which is the physical mounting of a Mare by a Stallion with intromission of the penis and ejaculation of semen into the reproductive tract.
3.1: A natural gestation must take place in, and delivery must be from, the body of the same Mare in which the Foal was conceived. Any Foal resulting from or produced by the processes of Artificial Insemination, Embryo Transfer or Transplant, Cloning or any other form of genetic manipulation not herein specified, shall not be eligible for recording in a Thoroughbred Stud Book approved by the International Stud Book Committee.

4.1: The details of the mating must be recorded by the Stallion owner or authorised agent on an official form or electronic system provided or approved by the Stud Book Authority certifying the Thoroughbred.

B. DISQUALIFICATION

a: The heritable genome of a prospective or registered Thoroughbred must not be modified in any way at any time, including during its conception, gestation or at any stage thereafter in its existence.

DUTY OF CARE

It is important to recognise the role of the people that look after horses daily. It is vital that those working with horses understand and accept responsibility for the welfare of the horses in their care. Every person responsible for the supervision of horses should be provided with adequate training, and continuous development and training should be encouraged amongst all those responsible for the care and welfare of horses.

Under animal welfare legislation in most countries, animal owners and keepers are under a legal duty of care for the animals for which they are responsible on a permanent or temporary basis. A person could therefore be responsible for an animal if they own it or oversee it. If an owner leaves an animal in the care of another person, it is the owner's duty to ensure the keeper is competent and has the necessary authority to act on their behalf in case of an emergency. Responsibility for an animal includes understanding the specific health and welfare needs of the animal and having the appropriate knowledge and skills to take care of the animal.

CONTENTS

1. GENERAL HEALTH AND WELLBEING

1.1 Routine health care and biosecurity measures should always be maintained for breeding horses

a) Vaccination, worm and other parasite control and disease monitoring and implementation, to include appropriate hygiene and isolation procedures[1], should always be in place. Local guidance on parasite and tick control and a de-worming programme should be sought to reduce the risk of infestation and worm burden. This should involve consultation with a veterinary surgeon.

b) A worming and faecal worm egg count (FWEC) testing programme specific to the age and pregnancy status of each type of horse on the stud farm, should be devised in consultation with the stud's veterinary surgeon. Care should be taken to assess the suitability of wormers according to the age and pregnancy status of the horse requiring treatment. Resistance by worms to the current treatments available has increased in all animals and with the development of no new drugs on the horizon, it is likely to become an increasing problem for horses. All worming and FWEC testing programmes should be strategically planned to ensure careful and appropriate use of dewormer treatments. Similarly, the effective management of paddocks (i.e. regular removal of faeces and cross-species grazing), to minimise worm egg burdens is vital.

c) Sufficient and good quality forage, normally grass, should be provided unless determined otherwise by a veterinary surgeon/nutritionist, and, if required, supplemented by additional fibre such as hay.

d) Good quality feed, minerals and vitamins should be provided as required. Overfeeding and underfeeding must be avoided. Any changes to feed should be made gradually to avoid gastrointestinal problems such as colic and diarrhea.

e) Herds should be monitored to ensure all members are receiving adequate feed and that any bullying behaviour does not prevent access to adequate portions of supplemental feed.

f) A nutrition expert should be consulted if issues arise with feeding to ensure nutritional requirements are met.

g) The weight and condition of horses should be monitored regularly with nutrition intake adjusted as appropriate with the advice of a nutrition expert or veterinary surgeon as necessary and where available.

h) Teeth should be inspected by a veterinary surgeon or a trained equine dental technician, at least once a year and rasped or otherwise treated if necessary.

[1] Horserace Betting Levy Board (HBLB) International Codes of Practice https://codes.hblb.org.uk/

i) Hooves should be inspected and trimmed regularly by a farrier or competent person. Particular attention should be paid to a horse's hoof balance and whether equal weight is being placed on all four legs.

j) Veterinary advice and support should be sought for all ailments.

k) Local guidance on vaccinations, including for equine herpes virus, equine influenza, ~~and~~ tetanus, rotavirus, African Horse Sickness, etc., should be sought and administered according to veterinary guidance and industry and government regulations.

l) Depending upon the management system in place, a horse's health and wellbeing should be evaluated regularly to ensure:

i. Alertness and interest in their surroundings
ii. Eating and drinking is normal
iii. Passing urine and faeces in normal amounts and appearances
iv. Weight bearing is even on all four legs
v. Mucous membranes are pink
vi. Normal temperature, which should be approximately 37.5-38.5°C / 99-101°F, heart rate (36-40 beats per minute) and respiration (8-15 breaths per minute)
vii. No outward signs of abnormal behaviour, discomfort, distress, sweating or pacing
viii. No discharge from the eyes, nose, navel, rectum or genitalia
ix. Coat is glossy, supple and lying flat
x. No abnormal swelling or noticeable heat on the body
xi. Sufficient hydration - skin recoils in a couple of seconds
xii. Normal capillary refill (after pressing a thumb against the horse's gum, the colour returns almost immediately)
xiii. No skeletal abnormalities or broken skin

1.2 Illness and injury

Everyone responsible for the supervision of breeding stock should be able to check the basic vital signs (demeanour, temperature, respiratory rate, colour of mucous membranes etc.), and be familiar with normal equine parameters for the age and pregnancy status of the animals under their care, which can be done with the advice, help and supervision of the stud's veterinary surgeon. Further examinations must be performed by a veterinary surgeon.

Where an infectious disease is suspected or identified, the stud farm's veterinary surgeon should be contacted and immediate action should be taken to contain the disease and prevent further spread, in accordance with local emergency animal disease legislation and requirements. Protocols should be established in advance, so that staff are able to implement them at short notice. *(Refer to the HBLB International Codes of Practice[2] in relevant jurisdictions.)*

[2] https://codes.hblb.org.uk/

All Thoroughbred breeders must comply with local emergency animal disease legislation and requirements, in conjunction with their veterinary surgeons, in the prevention and control of specific diseases that occur in all breeds of horses and ponies, including information on correct notification procedures.

All new arrivals on the stud farm may pose a risk of introducing equine infectious disease to the resident herd and a risk assessment should be performed, veterinary history checked and biosecurity protocols followed, including appropriate quarantining, to safeguard the health of other horses on the premises.

Horses that are in pain, or having veterinary treatment, may become stressed, anxious and difficult to handle. Where temperament changes are noted, it should initially be assumed that the animal is uncomfortable and efforts should be made to ascertain the source of this discomfort with support from the stud manager, veterinarian, farrier, dentist and / or physiotherapist, as required. It may be necessary to use additional restraint to achieve a successful outcome but this should be kept to the minimum required and applied only by experienced handlers.

Sedation may be used from time to time by a veterinary surgeon if considered essential to treat a horse, to ensure their safety and that of the handlers and with due consideration for the horse's condition, particularly pregnant mares.

1.3 Appropriate pasture should be provided for breeding horses

a) The paddock should have safe and secure fencing and gates that are easily visible. Any treatments or preservatives applied to any gates or fencing should be non-toxic.

b) Paddocks and any accessible shelters should be inspected frequently to eliminate any risks of injury or inhibitions to free movement.

c) Pasture or grassland should be managed to ensure healthy and safe grass and related plants as regionally appropriate.

d) Regionally appropriate pasture or grassland management practices should be consulted to avoid toxins, parasites and overuse.

e) All paddocks, pastures or grasslands should have uninhibited access for all horses to adequate and clean water sources.

f) The paddock should be free from any potential hazards such as steep slopes, fallen branches, rocks, drains, ditches, deep standing water, areas of standing water which provide breeding grounds for mosquitos, etc.

1.4 Appropriate stabling, where stabling is required, should be provided for breeding horses

Horses on the stud farm vary in size from the unweaned foal (with its mother), yearling, stallion, or large broodmare. Stallion boxes should be sufficiently sized to allow the potentially large occupants

to lie down in any direction unhampered, with some space for movement, stretching and expression of normal behaviours. Stallion handlers will also require adequate space to groom and change rugs / tack without putting themselves at any unnecessary risk. Stallions may spend more time in the stable than mares and young stock.

a) Stabling should be cleaned regularly to prevent build-up of bacteria, and attention should be paid to air quality, with minimisation of dust and respiratory irritants.

b) Bedding should be dry and cleaned out daily, waste material removed to a suitable location away from the paddock and stables.

c) Any treatments or preservatives applied to any surfaces should be non-toxic.

d) Floors should be level throughout, non-slip and provide good drainage.

e) Adequate and suitable dry bedding should be provided and maintained at least daily to ensure hygiene.

f) Fire safety precautions should be in place always and all handlers should be trained in fire safety procedures.

2. MATING

2.1 All measures should be taken to ensure the health and welfare of a mare and stallion, and the safety of handlers, before mating

a) Both mare and stallion should be assessed for breeding in terms of both physical health and psychological suitability, and breeders should give thought to what will happen to the resulting foal if it is not capable of entering the racing industry.

b) Veterinary advice should be sought and Codes of Practice for Equine Breeding[3] as well as local guidance for equine breeding practices should be followed to help breeders, in conjunction with their veterinary surgeons, prevent and control specific breeding-related diseases.

c) Clinical veterinary examinations should be undertaken to ensure reproductive and general health and to maximise the probability of achieving conception, including swabbing and testing blood samples from the mare and stallion to check health status and freedom from disease, and ensuring vaccinations are current.

d) Occasionally, veterinary intervention is required to assist in the management of the natural cycle in the mare. The welfare of the mare should be a key consideration when devising reproductive management regimes prior to covering.

[3] HBLB International Codes of Practice https://codes.hblb.org.uk/

e) Health examinations and veterinary care should take place in a safe, enclosed area, and with experienced handlers to avoid stress and injury to the horse and its handler.

f) A breeder should ensure the mare is in oestrus/estrus, or heat, before covering to provide an accurate assessment of whether she will accept the stallion and it is the right time to cover and achieve conception.

g) Consideration should be given to interaction between a maiden filly and a teaser before covering, whereby the teaser will lean across or mount the mare without mating, to prepare a maiden filly for covering for the first time.

h) Consideration should be given to a stallion's covering regime to avoid fatigue.

2.2 Covering facilities should be safe for handlers, mares and stallions

a) Covering barns/yards should be of sufficient size – ground surface area and ceiling height – and of safe construction and materials to allow covering and handlers unencumbered and protected movement, particularly around the entry and exit points.

b) Covering should be conducted on flooring that ensures non-slip and level footing.

c) Covering should be conducted in an environment where dust is kept to a minimum.

2.3 Covering should be safe for horses and handlers

a) All protective measures should be applied during covering for the protection, safety and welfare of the handlers, mare and stallion.

b) The covering area and handlers should be as quiet and calm as possible before, during and after covering.

c) Handlers working in the covering area should be trained and experienced in covering practices, and consideration should be given to wearing safety helmets, vests and shoes/boots.

d) There should be at least one handler overseeing the covering, one handler at the head of the mare and one handler at the head of the stallion.

e) The stallion should be led into the covering area and handled during covering by the same handler who grooms, feeds and cares for him or a competent handler who is familiar with the stallion.

2.4 The welfare of a foal at foot should be carefully considered when the foal's dam or foster mare is being covered

a) A decision should be made before covering what is in the best welfare interests of the mare and foal and whether the foal should accompany the mare to the covering barn.

b) When a foal accompanies the mare to the covering barn, it should be held securely by an experienced handler within sight of the mare and preferably within a safe and enclosed area.

3. MARES, FOALS AND FOALING

3.1 Abortion and premature birth

a) All aborted foals should be subject to postmortem examination in accord with the International Codes of Practice[4] or relevant local guidelines. Common causes of abortion include Equine herpesvirus (EHV-1) and placentitis, including that due to Equine Amnionitis and Fetal Loss (EAFL), and compromise of the blood flow to the foetus caused by an excessively long or twisted umbilical cord.

b) Foaling boxes or boxes where an abortion has occurred should be thoroughly cleaned with disinfectants. It is crucial that studs have biosecurity protocols in place, have a readily available stock of disinfectants and disposable PPE (personal protective equipment), and that staff are trained in correct procedure in the event of an abortion, as early actions can have consequences for any subsequent spread or control of a virus such as EHV-1. The stud's veterinarian should be consulted and biosecurity procedures such as those outlined in the International Codes of Practice or in local guidelines should be followed.

c) Foals born between 300 and 320 days of gestation are premature. Their survival is likely to be dependent on the availability of intensive care.

d) Normal gestation in the mare ranges from 330 to 345 days but normal foals can be delivered thereafter, and some mares routinely carry their pregnancies for more than 360 days. Prolonged gestation can be associated with placental pathology and resultant compromise of the foal and veterinary advice should be sought.

3.2 Suitable preparations should be made in advance of a mare foaling

a) A pregnant mare should be kept under close observation by experienced handlers. Veterinary examinations should take place in a location and on flooring to prevent injury to the mare, the veterinary surgeon or any other personnel.

b) A record of foaling history is an extremely useful tool as many mares adopt a similar pattern of behaviour year after year.

[4] HBLB International Codes of Practice https://codes.hblb.org.uk/

c) A mare's mammary development should be regularly monitored, particularly for any premature lactation, to determine when she should be moved to a foaling box or foaling paddock. In any event a mare should be moved to a foaling box or foaling paddock in advance of her due date.

d) A mare should be tested immediately after foaling to ensure sufficient concentration of IgG antibodies in her colostrum.

e) Alternative sources of colostrum and plasma should be readily available in case of need.

f) A foaling box should be temperate, contain deep, hygienic bedding and be free of fittings or associated infrastructure which could cause injury to a foal. In certain regions, outdoor foaling paddocks that are safely fenced and with good pasture coverage are a suitable alternative.

g) A mare should be placed under constant surveillance, and handlers should be ready to respond immediately, including contacting the veterinary surgeon.

h) Handlers should be aware of the three stages of labour (refer to Appendix 1: Definitions) and check regularly for any abnormal behaviour, box walking, sweating or signs of discomfort from a mare.

3.3 A mare should be monitored throughout foaling

a) A handler with experience of foaling should be present when the mare starts to foal.

b) Many mares take a natural pause between stage two and three of labour, but as long as the foal's front limbs and nose are presented and the mare is not pushing, this is quite normal.

c) Handlers should be ready to respond at any moment. If 10 minutes of strenuous stage 2 labour produces no signs of the forelimbs or head, the mare should be examined, preferably by experts experienced in foaling and/or veterinary medicine.

d) Stage three of labour in Thoroughbred mares is often rapid in comparison to other species and most mares will not require assistance in the form of pulling the foal's forelimbs with the mare's contractions.

e) Any handling of a foaling mare should be undertaken with extreme care and as calmly as possible with utmost regard for the welfare and safety of the mare - particularly a first-time mare - foal and handlers.

f) Foaling, from the early signs of foaling to after delivery of the foal, should be observed regularly by a handler with experience and training of foaling and potential problems that can arise in foaling.

3.4 A mare and her foal should be closely monitored after birth

a) After the mare gives birth, some time should be given to respect her need to recover and, after she stands and the umbilical cord has broken (normally within a few minutes after expulsion of the foal), connection between the mare and foal should be encouraged if this is not happening naturally. The placenta should be checked for colour, size and weight and to ensure it is intact.

b) A foal should stand within the first 40-60 minutes and start to suck within approximately 90 minutes.

c) Ingestion by the foal of adequate quantities of good quality colostrum within a few hours of delivery is important for their survival. Foals are immunocompromised at birth and serum samples should be taken and evaluated within a few hours of foaling by experts, preferably by a veterinary surgeon or a person experienced in assessing IgG levels.

d) Alternative sources of colostrum and plasma should be readily available in case of need.

e) A mare should be tested immediately after foaling to ensure sufficient concentration of IgG antibodies in her colostrum. A tool such as a refractometer can be used to measure the quality of the colostrum in the dam's milk post foaling and when this is scored below 20%, a decision may be made to provide donor colostrum to the foal by bottle, or if the foal is lacking a suck reflex, the stud's veterinarian may administer it via stomach tube.

f) Donor colostrum should be given before the foal is around 12 hours old. The donor colostrum is usually collected from another mare with a High IgG concentration who has ideally foaled at the same location, as antibodies produced will be specific to the local environment. If colostrum has been frozen, it will require gradual de-frosting and should not be thawed in a microwave or overheated.

g) Donor colostrum may also be given where a foal cannot nurse from its own dam for the first 48 hours of life, due to her having a history of producing haemolytic foals.

h) Foals who have a poor transfer of colostral immunity from their dam, as determined by an IgG blood test, or who were unable to nurse from their mother within the first 24 hours of life, may receive a transfusion of hyperimmune plasma performed by the stud's veterinarian, to boost their immune system.

i) Handlers should anticipate a mare showing aggression after foaling, in protecting her foal. Handlers should also maintain vigilance for any signs of the mare showing aggression towards the foal or rejecting the foal.

j) A foal should be handled carefully by experienced and trained handlers. A new foal should be gently supported by handlers front and back when being examined. At all times a foal should be kept close to and in full sight of the mare. This method of handling should be maintained until a foal fully accepts a head collar.

k) If a standing foal is not sucking it should be held close to the mare's teats to encourage it to suck.

l) If a mare will not stand to let her foal suck, the foal should be introduced to the mare carefully in a safe and calm environment with a minimum of two handlers, one standing at the mare's head and one to encourage the foal to suck and to show the foal where to suck at the same side as the handler.

m) A mare, which is observed to take time to bond with their foal or show signs of rejecting their foal, should be constantly monitored for signs of abandonment or rejection. Intervention by experienced handlers may be necessary to encourage the mare to bond with the foal. Removal of the foal should be initiated immediately if the mare attacks the foal.

n) A veterinary surgeon should visit the mare and foal within the first 24 hours after foaling.

3.5 If a mare dies or rejects her foal or is unable to feed her foal, a foster mare (that has been veterinary health-screened) should be sought as soon as possible

a) Before a foster mare can be introduced to an orphan foal, the foal must be kept hydrated, including alternative colostrum supply, until fostering can take place.

b) A foster mare and foal should be monitored until the foal has sucked several times and the mare has fully accepted the foal. This can take up to a week.

c) The foster mare may initially wear a hood and hind limb hobbles until a satisfactory bond between mare and foal has been achieved. Sedation of the mare may be performed by a veterinary surgeon.

d) Fostering a foal should not occur when the birth mare and foal are in good health and have bonded or have the potential to bond naturally.

3.6 Appropriate stabling should be provided for a mare and foal

a) For the first few days after birth, a mare and foal should be kept in a small paddock or, if necessary in colder climates, a stable.

b) Subject to the health of the mare and foal, they can be introduced into a small group of mares and foals (of similar age) after the first few days spent in a small paddock.

c) Stabling should allow sufficient space for free movement and for both the mare and foal to lie down. It should be well-ventilated and of sufficient height to avoid contact with the ceiling. Walls, surfaces and fixtures such as feed racks and water bowls, should be positioned and inspected to eliminate risks of injury or inhibitions to free movement.

3.7 Regular hoof and limb checks and care should be provided for a mare and foal

a) A foal should have its feet checked and evaluated regularly by a farrier or experienced handler. A foal receiving remedial footcare should be monitored more frequently and the advice of the farrier sought.

b) A foal's growth rate should be checked regularly.

c) Foals should be checked for any angular limb deformities, and corrective management instigated as early as possible, particularly for any foals born before 310 days of gestation and foals that appear dysmature (for example, silky hair coat, floppy ears, domed forehead, entropion).

3.8 It is important to ensure correct nutrition is provided to the mare and foal

a) Quantities, qualities and types of feed should be available as appropriate for the mare and foal. Nutrition experts or veterinary surgeons should be consulted if necessary to ensure correct nutrient intake.

b) Hard feed should be introduced prior to weaning to reduce the effect of the reduction in milk intake.

3.9 Weaning should be carried out using a method which will maintain the health and safety of horses and handlers and minimise stress for the mare and foal

a) The time to wean should be based on the best interests of the mare and foal including observation of the behaviour of the mare and foal and the development of the foal.

b) Weaning in a herd should be carried out in a manner that maintains equanimity and allows the herd to settle as soon as possible.

c) A mare and foal, which are not part of a herd, should be introduced to other mares and foals or suitable companions (for example retired mares or geldings) well in advance of weaning. Horses are herd animals and a foal should not be weaned on its own.

d) Paddock weaning, whereby single mares are removed sequentially (one or two mares per day) from a stable group of mares and foals until one 'nanny' mare remains, is preferable in that it appears least stressful to the foals, who remain in a group of known companions where a hierarchy and relationships are well developed.

e) A mare and foal should be monitored before and after weaning, particularly the foal to ensure it is eating sufficiently after weaning.

f) A foal's headcollar should not be pulled in any way in the early days as foals will resist and may flip over and damage themselves.

4. YEARLINGS

4.1 Daily management and care for the welfare of the yearling should be in place

a) Caring for yearlings should be overseen by an experienced yearling manager and approved personal protection equipment should be available for staff.

b) Guidance on yearling nutrition and feeding should be sought from an expert or a veterinary surgeon to manage growth rates and body condition.

c) Yearlings should have access to paddocks and turned out for grazing and social group integration. Prolonged confinement in stables without appropriate exercise can induce stereotypic behaviours through lack of stimulation such as box walking, weaving, crib biting and wind sucking.

d) Yearlings' teeth should be checked periodically by a veterinary surgeon or a trained equine dental technician particularly for sharp edges on top and bottom cheek teeth at around 18 months to avoid a reduction in nutritional absorption, prevent pain and laceration to the inner walls of the mouth. Particular attention should be paid to wolf teeth, which start to emerge at this stage and can cause prolonged discomfort, and a decision made on their removal.

e) Yearlings should have a comfortably sized head collar – not tight around the head and not too loose causing it to come off the head without unbuckling - to enable regular handling. The head collar will require frequent adjusting to ensure comfort and safety as the yearling grows.

4.2 Appropriate and graduated training, based on learning, with an emphasis on positive encouragement and reward, should be applied to educating the yearling through sales preparation and foundation training

a) Sales Preparation or the management programme for each yearling leading up to a sale, should be planned to present them at the point of sale in the optimum physical and mental condition.

b) The management of yearlings leading into and through the sales preparation should be structured to slowly develop the yearling's physical and mental capacity through exercise and education and the nature and duration of the sales preparation should be adjusted to take account of their physical and mental development.

c) Sale preparation should always be a positive experience for the yearling and should include grooming, walking in hand, lunging, long-reining, driving and, if available, use of a mechanical horse walker to educate and prepare the yearling for the sales and for their future as a racehorse.

d) A yearling's exercise routine should progress slowly allowing them the time to gain confidence as they progress through the preparation up to the point of sale.

e) The yearling should progress to foundation training from about 20 months old. This is a continuous process which progresses to race training.

f) The horse-human bond should be developed and built to enable a yearling handler to recognise the many behavioural cues that are indicators of good and poor welfare and a horse that is comfortable and confident to work with the handler. This should be reinforced by:
   i. Regular, consistent contact which builds familiarity with each individual yearling's behaviour.
   ii. Daily interaction with the yearling which allows behaviours to be observed.
   iii. A culture of empathy and concern for the yearling's wellbeing.
   iv. Scheduled routines of exercise, feed and rest.
   v. Providing opportunities for yearlings to have varied environmental challenges and choices to engage in rewarding behaviours.
   vi. Appropriate and consistent training and management practices, using graduated learning with positive reinforcement and reward.

g) Care of the yearling should optimise the welfare and mental and physical condition of a yearling as it progresses towards foundation training and should include the following:
   i. Comfortable sensory inputs.
   ii. Engaging activities.
   iii. Training based on graduated training practices supported by encouragement and reward.
   iv. Opportunities for spontaneous free movement.
   v. Opportunities to respond to varied environmental challenges.
   vi. Opportunities for foraging and browsing.
   vii. Opportunities to bond with other equids and with humans.
   viii. Opportunities to play.
   ix. Opportunities to use safe spaces, retreat, or defensive activity.
   x. Having sufficient sleep and rest.

h) Conditions and training should be re-evaluated and corrected where horses exhibit the following behaviours – it is likely minimum welfare conditions are not being met:
   i. Stereotypical or repeated behaviours or stress related behaviours such as box/stall walking, ~~or~~ weaving, crib biting and wind sucking.
   ii. Resistance or lack of cooperation when worked or handled.
   iii. Lethargy or exhaustion.

i) Breeders, trainers and handlers depend on healthy and willing horses and should regularly monitor a yearling's mental state for:
   i. Alertness and engagement with handlers.
   ii. Willingness to work.
   iii. Confidence and calmness in familiar environments.
   iv. Signs of distress - anxiety, fear, pain, anger or frustration.

j) Minimum welfare conditions for yearlings should be provided where:

i. Management provisions meet nutritional, environmental, health and behavioural requirements.
ii. Opportunities are available for positive experiences.

5. STALLIONS

5.1 Stallions should be managed extremely carefully by experienced handlers

a) Stallions present unique challenges and safety risks to humans that are not seen with other horses and great care should be taken at all times when handling or being near stallions.

b) Stallions should be cared for, including during exercise, feeding, grooming, medical treatment and covering, to the greatest extent possible by the same handler.

c) Stallion behaviour should be monitored, such as fence pacing and box/stall walking.

5.2 A stallion requires specific facilities and care

a) A stallion's paddock should be large enough to allow him to run freely.

b) Paddock fencing and gates should be strong and secure, and of appropriate height to prevent jumping from the paddock.

c) A stallion should be exercised regularly to maintain good condition and a positive mental state.

6. RETIREMENT

6.1 Breeders/owners have a responsibility to ensure their horses are sympathetically and humanely treated when they retire from breeding

a) Planning for the best outcome for horses retiring from breeding should be undertaken before retirement.

b) Stud Book Authorities should aim to have procedures in place to permanently identify and register horses to enable ongoing traceability and end-of-life outcomes.

7. EUTHANASIA AND CARE OF OLDER OR ILL HORSES

It is recognised that properly conducted euthanasia can, in certain circumstances, be the most humane option and the best welfare outcome; for example, for individual horses with severe or chronic injuries, or where care would be inadequate, and long-term pain and distress is likely to be the result.

8. TRANSPORT

During transportation, thoroughbred breeding horses and those of their progeny transported to public auction sales must be fully protected against injuries and other health risks. Vehicles must be safe, well ventilated, maintained to a high standard, disinfected regularly and driven by competent personnel. Competent handlers must always be available to manage the horses. In addition:

8.1 Handling

All thoroughbred breeding horses and their progeny should be well handled and used to leading in hand / halter trained and accept gentle restraint as required prior to being transported. This applies equally to mares, foals and yearlings and to older progeny.

8.2 Personnel

Drivers must comply with all applicable national and multinational (e.g. European Union) legislation in relation to journey planning, durations and rest stops. Horse handlers accompanying thoroughbred breeding stock and their progeny must be experienced in the transport of horses, whether this is part of their normal work or a full-time occupation as is the case for so called professional traveling grooms.

8.3 Vehicles

All vehicles must be equivalent to those used for all other elite horses in the racing and competition horse jurisdictions. They must provide low-loading ramps, non-slip surfaces on the ramps and within the vehicle, internal partitions that can provide generous space for all categories of breeding stock and their progeny – and that can be narrowed to provide lateral support as and if required. They must have appropriate ventilation which may be passive (opening windows and roof vents) or active – with supplementary fans which can be utilised as required.

Choice of ventilation method can be assisted by the knowledge that the internal temperature of the vehicle in motion is usually significantly lower than external warm/hot ambient temperatures. Respectively, travelling in extreme cold ambient temperatures, the internal temperature is usually significantly warmer. The vehicles must be designed so that ramps can be lowered to increase ventilation while the vehicle is stationary in hot weather at border crossings or at ferry ports, in accord with existing elite horse transport practice. They must be designed so that personnel can have immediate and ongoing access to all horses on vehicles at all times, whether they are in motion or stationary. It is essential that all vehicles are thoroughly cleaned and disinfected after each journey.

8.4 Journey times

Normal journey times will not usually exceed some eight to 12 hours without overnight rest. However, these durations can be extended where the internal area is expanded to provide the equivalent of a “loose stall”, which permits free movement akin to stabling. Extension beyond the planned journey time can occur, due to delays caused by road accidents, delays at border crossing and ferry ports or other unforeseeable events. Under these circumstances it may be better to continue the journey, rather than risk the hazards of unloading and reloading and biosecurity hazards at unfamiliar

premises. Any premises used for journey stopovers should provide a standard of housing equivalent to that of the premises of origin and destination.

8.5 Access to feed and water during the journey

It is essential that water is offered regularly throughout the journey and at intervals of no more than three to four hours. Hay should be provided ad lib either in hay nets where horses are separated by partitions, or from the floor in open stall situations.

8.6 Pregnant broodmares and foals

Mares in their final trimester of pregnancy and those with a foal at foot can be transported untied in a double stall, to give adequate space for any foal to lie down and for the mare to balance (often using her hind quarters to lean on). When transporting foals, bedding materials should cover the floor of the stall to allow them to lie down comfortably. Pregnant mares may be transported in late gestation, over relatively short distances to specialised foaling units/facilities, where the home facilities either do not, or cannot, provide the required foaling expertise.

8.7 Identification

All thoroughbreds are registered with pedigree registration authorities, on the basis of DNA testing, picture identification and tamper-proof microchips, with a unique identifying number. In relevant jurisdictions, their passports, which travel with them, also carry certificates of vaccination. Furthermore, thoroughbred breeding stock is certified to be compliant with the International Codes of Practice for the control of equine infectious disease. ePassports which carry this information have been successfully developed and are now increasingly available. These passports are available for inspection by any regulatory authority, at any time, prior to or after a journey or at the roadside, border crossing or ferry port during any journey.

APPENDIX 1: DEFINITIONS

Abortion	Delivery of a foal at less than 300 days of gestation. Foals born at less than 300 days of gestation are generally non-viable.
Box walking	Characteristic, repetitive pacing movements that a horse may make around its stable. The horse typically paces around the sides of the confined area and may seem preoccupied with this behaviour and have difficulty stopping.
Brushing boots / Over-reach boots	Applied to the limbs to prevent injuries where horses strike into / tread on themselves in the faster paces, i.e. when exercising or during turn out.
Chifney	A ring bit attached to a leather headpiece, which may be used in place of a bridle. Used by experienced staff only, as depending on the angle and pressure exerted it can have a more severe effect than a conventional bit, e.g. a snaffle.
Colostrum	The first secretion from the mammary glands after giving birth, which is rich in antibodies.
Covering	A stallion mating with a mare which is the physical mounting of a mare by a stallion with intromission of the penis and ejaculation of semen into the mare's reproductive tract.
Crib Biting	Grasping a solid object such as the stable door or fence rail with its incisor teeth, then arching its neck, and contracting the lower neck muscles to retract the larynx
Driving	Walking behind a horse using two long reins attached to the bit to teach it to respond to reins and become accustomed to wearing a bit before it is ridden for the first time
Fly mask	Various styles or fly masks, hoods and fringes are available, but all have the common purpose of protecting the horse's face, eyes and sometimes the ears from flies which cause fly strike and eye inflammation or infections. Fly masks should be removed daily to check for abrasions to the face and to examine the health of the eyes.
Foal at Foot	A foal running with, and nursing from, a mare.
Foaling Box	A box or stable specifically used for foaling with full views of the mare to allow an attendant to observe her, and larger than normal to allow a mare to foal (usually no smaller than 5 x 5 metres or 16 x 16 feet).
Foaling Paddock	A small paddock specifically used for foaling.

Foster Mare	A mare brought in to care for a foal in the event of the birth mare being unable to rear her own foal due to not being able to suckle, illness, injury, temperament or death.
Foundation Training	The education process for a horse to accept a rider on its back calmly and confidently and participate in the exercise required in preparation for racing.
Grazing muzzle	Where diet is being controlled as part of a weight loss programme, a horse may wear a muzzle for no more than 12 hours per day to reduce intake of grass, whilst allowing free exercise and companionship. When the grazing muzzle is removed, the horse should be in an area without access to grass and provided with an alternative type of forage, such as soaked hay (preferably with a low protein content). The muzzle should be cleaned regularly, and the horse should be checked daily for any pressure sores or abrasions to the lips or nostrils.
IgG Test	An IgG or immunoglobulin test measures the level of types of antibodies in the blood of the foal. Antibodies, or immunoglobulins, are building blocks of proteins used by the body's immune system to fight off infections.
Long-reining	Lunging a horse with two reins, one of which goes around the outside of the horse to enable the handler to exercise it at walk, trot and canter in a controlled manner
Lunge whip	A long whip that is used to direct the size and shape of the circle the horse is to exercise on and to encourage upward transitions. The whip is used in a pointing or flicking gesture to support the voice aids of the handler.
Lunging	Exercising a horse around a large, enclosed circle on the end of a lunge line attached to the bridle
Maiden Filly	A filly that has never been bred and has never carried a foal.
Nose twitch	A short cord applied to the nose to control a horse, for example, to help handlers prevent a mare from moving forward rapidly or kicking out. Any twitch used must be made of appropriate materials and should only be applied to the nose.
Oestrus/estrus	The period of the reproductive cycle when a mare ovulates and, if bred, is likely to conceive. Estrus is also the time when a mare is receptive and will accept the stallion.
Positive Encouragement	Method to demonstrate to a horse that it has exhibited behaviour that is being asked of it, expressed by voice and touch

Stages of Labour	*Stage 1:* Initial uterine contractions begin. The duration of this stage varies from mare to mare. A mare may appear agitated, sweat, get up and down, walk consistently, paw the ground, roll, have a change in behaviour or look uncomfortable. *Stage 2:* Waters breaking and strong abdominal contractions followed by expulsion of the foal. Normal delivery is often within 20 minutes of waters breaking. A mare would usually be lying down at this stage. *Stage 3:* Expulsion of the placenta within 1 hour of foaling.
Swabbing	Taking a sample ('swabs') from the genitalia of a mare or stallion for testing in a laboratory to establish freedom from infection before, during, and after breeding activities where practical.
Teaser	A stallion employed to determine if mares are in oestrus/estrus and receptive to covering by a stallion.
Walking in Hand	Walking a horse with a lead rein looped through but not fastened to the head collar.
Weaning	The process of separating a mare and her foal.
Weaving	Stepping in place with the front feet and bobbing the head and neck from side to side
Wind Sucking	This is often related behaviour to crib biting whereby a horse arches its neck and sucks air into the windpipe but often does so without grasping an object.
Wind-sucking collar / Anti-crib biting Muzzle	Not all horses who wind-suck or crib-bite will require these behaviours to be managed, but where they are detrimental to the health of the horse (sucking air into the stomach can cause recurrent gas colic in some individuals and the habitual chewing of surfaces such as fencing and the top of stable doors can cause uneven wear of the teeth), then a decision may be made to attempt to reduce the frequency of these stable vices. A wind-sucking collar may be fitted around the horse's head and neck, which discourages them from wind-sucking or crib-biting. Collars should be made from leather which will snap and free the horse if it becomes caught. Collars should be removed regularly for cleaning to eliminate scurf and debris, which may rub the skin and whilst the collar is removed the hair should be checked for any pressure sores or abrasions. Anti-crib biting muzzles can be an effective alternative to a collar but should also be removed frequently to check for any pressure sores or abrasions to the mouth and nostrils.