EFTBA Veterinary Newsletter 38

Fig. 1 Bayeux Tapestry - Invasion of England 1066

Transporting Horses Yesterday and to-day

Obituary

Prof. 'Twink' Allen

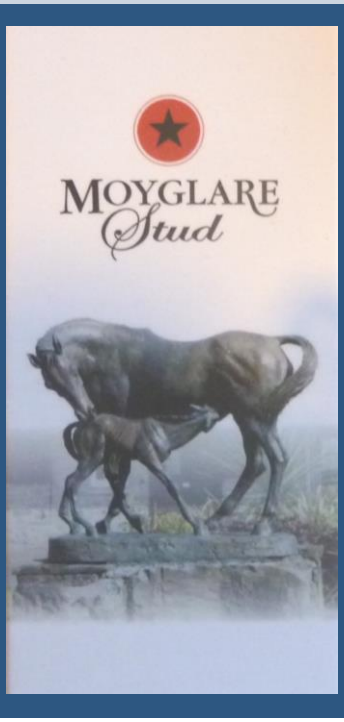
July/August 2021

. The transport of horses is one the most important and pretentious tasks in our industry.

. Its history already dates back to about 2'500 years B.C.

. The incidence of infectious diseases due to transports can still be as high as 20%. All the efforts for realizing High Health Breeding (HHB) therefore merits the support of all of us.

"Many thanks to Mrs. Eva-Maria Bucher-Haefner, Moyglare Stud Farm, for her valued sponsorship of this newsletter."



Welcome to EFTBA's veterinary newsletter

Dear EFTBA members,

It is hard to believe we are in the eight month of 2021 already. August truly heralds the commencement of yearling sales preparation; with breeders getting ready to sell their stock right across the world.

Bearing this in mind, as part of the latest edition of the EFTBA Veterinary Newsletter, kindly sponsored by Moyglare Stud, Hanspeter Meier, in a very timely fashion takes us into the world of the transportation of horses; from days gone by, right through to today.

In this edition Hanspeter also delivers a very informative, yet touching obituary to the late Prof W.R "Twink" Allen who dedicated much of his veterinarian career to improving breeding techniques. To quote TBA veterinary consultant James Crowhurst "No veterinary scientist has made a greater contribution to the horse breeding industry".

On the matter of transportation, be rest assured, your federation is working hard behind the scenes as well as via public and political engagement to ensure the transportation of thoroughbreds, within Europe and beyond is permitted to continue in a safe, efficient and timely matter, for the betterment of breeders and the welfare of the horses. Your federation is strongly advocating for the HHB status to be integrated into the new e-passport system. We will keep you all updated on the matter.

In the meantime, I would like to take this opportunity to wish all European breeders a safe and successful 2021 yearling sales season.

Best regards

Joe Hernon

Chairman, EFTBA

Editorial

The movement of horses in our days has been one of the most important subjects of discussion in our federation this spring and summer. Beside Brexit and the e-passport, both the projects "High Health Breeding (HHB)"and "Protection of Animals in Transport (ANIT)" had to be dealt with, and the outbreak of Equine Herpes Virus (EHV) in Spain did show us once more the great importance of health aspects in shipping horses. It therefore certainly makes sense to get familiar with the possibilities and problems of transporting our stallions, mares, foals, yearlings and racehorses as well and safe as possible.

Dr Hanspeter Meier

EFTBA veterinary advisor & Newsletter editor

Introduction

The transport of horses is a most important and demanding task for all of us, and here we want to occupy ourselves above all with potential impacts on health and risks for their well-being. In doing so, we first might remember that in the past the horse has been a most effective means of transport itself; in our days however, their shipment normally occurs on the road, by boat or aircraft.

Some remarks to the history of transports

The domestication of the horse and its first shippings

Our relationship with the horse started with its domestication about 5'500 years ago, probably first as provider of milk and meat and soon also as a means of transport for us in many respects. The horse and other equids also were used in warfare already early, proven by a Sumerian illustration from 2'500 B.C. The earliest known record (invasion of the Persian army) of a transport was provided by the Greek historian *Herodotus* (1'500 B.C.), via a seal impressed with a horse in a boat. Of course, conduct of war normally meant conflict with other countries far away and therefore, the probably very first transport of horses was done by shipping them (horsenetwork 2017).

The practice of transporting horses by boat for the purpose of war did become quite common and in our regions, the invasion of England by William the Conqueror in 1066, is well known thanks to the Tapestry of Bayeux (Fig. 1). William brought more than 2'000 horses with him by row-boat across the Channel. The animals were usually slung in slings on deck or tethered tightly and boxed into compartments in the hold; this practice often resulted in death. Moreover, at that time, there were also no loading ramps for horses, so getting them on and off the ship presented its own special peril; many were simply thrown overboard upon arrival (horsenetwork 2017).

The journey of *Byerley Turk* (1678-1703)

The way to transport horses long distances, before the invention of means for this task on land, was on foot - very simply. Information to this subject is available thanks to the biography of *Byerley Turk*, the "first thoroughbred" (James 2005). He was born in Bor (1678), a city about 150 km south-southeast of Belgrade (capital of Serbia). From Bor, he came to Istanbul first, and afterwards was brought from there to the second siege of Vienna in 1683 and to the siege of Buda in 1686. There he was captured and came to England, via Calais. In 1687, he was sold to Captain Byerley and due to his obligations, *Byerley Turk* also had to attend in Ireland the battles of Boyne (1690) and Aughrim (1691) and the second siege of Limerick (1691); by the way, there he also won the King's Plate in Downroyal in 1690. In 1692, *Byerley Turk* started his stallion-duties in a stud in Yorkshire, where he died in 1703 (James 2005). He certainly was a very strong horse, as just the air line of all his scenes of action was about 6'200 km (Fig. 2).

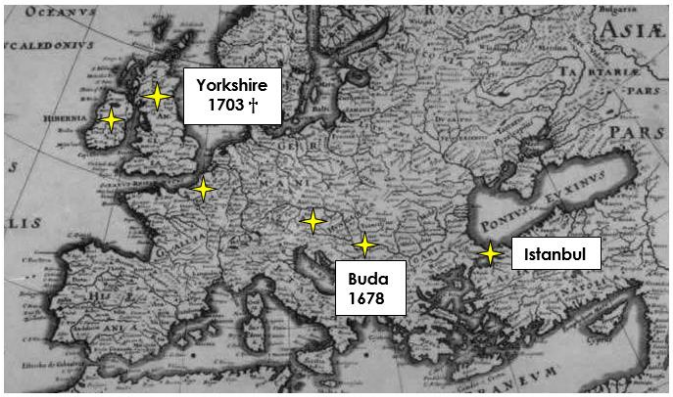


Fig. 2 *Byerley Turk* was born in Bor (near Buda), was brought to Istanbul, had to travel to Vienna and Buda and was than brought to England and Ireland.

The transport of *Eclipse* (1764-1789)

The first real record of transporting a horse overland came with the great British racehorse *Eclipse*. However, information on this event is inconsistent, as Reuter (2010) mentioned that a special carriage was built for him in 1771, for the travel to a stud farm for his new career. Contrary to this, Clee (2009) reported that for the transfer of the O'Kelly Stud from Clay Hill to Cannons in 1788, *Eclipse*, was feeling his age. He was too disabled to make the fifty-mile walk and became the first horse in Britain to travel by means of others' effort. Philip O'Kelly had devised for him a prototype horsebox, a four-wheeled carriage with two horses to draw it.

The trip of *Eclipse* became the first recorded appearance of a "horse trailer" - whether it happened in 1771 or 1788 (Clee 2009, Reuter 2010).

The St.Leger and *Elis* (1833- ?)

Afterwards, it was until 1836 that transporting horses became a trend rather than a rare occasion. Responsible for this development was the trainer John Doe, who convinced the owner of *Elis* to drive him from Goodwood to Doncaster (250 miles), to compete in the St. Leger stakes. He was put on a horse-

box and hauled by "inferior" horses and was said to have arrived at Town Moor "as fresh as a daisy" (Fig. 3).

Fig. 3 Portrait of *Elis*, winner of the St. Leger 1836 and his horsesbox (Abraham Cooper)

Elis performed spectacularly in the race and won at high odds; his owner Lord George Bentinck won £12'000. This was reason enough that trainers all over Britain soon adopted the practice and began vanning their horses to meets (horsenetwork, Wikipedia, Reuter 2010, Thompson 1996).

Further developments of means of transport

The "Vanning" of horses certainly brought progress, but at this time, in the first half of the 19th century, the horse-drawn transport was replaced with **railways**, a much faster and more economical option. However, experts and haulers, including the RSPCA, noted that many horses reacted badly to train travel, particularly at the point of loading. In 1905, J. Wortly Axe, a former president of the Royal College of Veterinary Surgeons, wrote that conditions on board of railway-transport often seemed intentionally designed to spook horses, with loud noise everywhere, and tethers too short to allow the animals to maintain their balance (Pearce 2014, Reuter 2010, horsenetwork).

This brought us to the advent of the haulage by **motor vehicles** in 1901 and in the meantime, this evolved to open and roomy boxes on wheels in our time.

The first transport of a horse **by air** was mentioned 1924, when a horse called "Tony" was flown from London to Paris (Küper 2003).

Professional horse transportation by air began at the start of the 1960s, and at this time already, the risk of spreading infectious animal diseases due to flights all over the world, was recognized (Küper 2003).

This short summary brings us now to the transport of horses in our days, and the main issue of this newsletter refers above all to veterinary matters. Here, we are very lucky that ***Des Leadon***, the chairman of our veterinary advisory committee, is the most experienced expert in this field. Therefore, let us occupy with one of his many contributions to this subject.

When and how should horses travel to perform optimally

(Leadon 2004, 'Conference on Equine Sports Medicine and Science' in Oslo)

1. Introduction

Air transport studies have relevance to all other forms of transport and are, arguably, the best model for study of transport-related disease.

The international horse industry began to be enhanced by access to air transport services when regular horse carrying flights between Ireland, England and France were initiated in the early 1950's. Bristol Freighter aircraft were used for this service. Their front-loading facility made them easier to load than other contemporary aircraft, but they were felt to be noisy and slow by the personnel that travelled with the horses. The volume of traffic was sufficient to justify staff dedicated to providing horse care from departure to destination, familiar with the environments and requirements at airports and at altitude. They became known as "Flying Grooms". Their numbers have grown from a handful, to the stage at which there are international efforts to recognise their chosen profession by accreditation and certification.

The "jet age" arrived with the first carriage of horses in a Boeing 707 in the early 1960's. Stalls were built around the horses after they had walked up a ramp into the aircraft. These were so called "open stall systems", which although they surrounded the horses, they did not fully enclose them.

Fast and efficient, regular air services from Europe to the USA, Japan and Australia became commonplace in the 1970's, using the then "state-of-the art" Boeing 707 and DC8 aircraft. Palletised freight systems in which three-horse stalls with a groom's compartment, were loaded with horses on the ground and then lifted onto the aircraft led to faster loading and unloading. Thirty horses could now be loaded onto an aircraft in an hour. Later, 112 horses could be carried in a Boeing 747 when these and other, so called "wide bodied" jets became available for horse charter flights in the 1980's. Improved access to scheduled services also took place and

three horses and a groom could, from then onwards, travel almost anywhere in the world in fully or partially enclosed "air stables" or "jet stalls".

The open stall system usually is utilised when the entire aeroplane has been chartered by a shipping agency. The numbers of horses that are carried in open stall systems are determined by the type of aeroplane and the size of the horses to be transported.

Jet stalls can carry up to three horses and have a groom entry door and a groom's compartment at the front of the stall. A modified "insect-proof" jet stall was used to transport *Vintage Crop* from Ireland to Australia, prior to his victory in the Melbourne Cup. Jet stalls are used where aircraft are chartered from airlines, but they can also be used in so called "Combi" systems, where passengers are carried at the front of the aeroplane and freight, including the horses in the jet stalls, is carried in the rear. Passengers are separated from the freight section by a partition.

The normal practice of the horse air transport industry is that the ratio of personnel to animals should usually be one groom for every three horses on the aeroplane. Seating restrictions may limit the number of grooms that can be carried. Horses are offered hay ad lib while the aeroplane is in flight and water is provided every six to eight hours or at landing/refuelling stops.

Prolongation of an event, such as transport, may result in stress, fatigue and eventually, illness. There is in horses, as in humans, great individual variation in ability to tolerate travel. Journeys that seem to trouble some horses may cause little demonstrable effect in others.

The term **"transport stress"** has been utilised to describe some of the effects of travel. Stress is a term that is easily understood but is notoriously difficult to define. One of the most useful definitions of stress is that used by Fraser and his research colleagues in 1975. They stated that stress occurs when an animal (a horse) is required to make abnormal or extreme adjustments in its behaviour or internal management (physiology) in order to cope with adverse aspects of its environment and management. This definition allows us to recognise that some adaptations to travel are normal and that we all have a role in optimising the transport environment and our management of it.

Measuring various adaptive responses can give us an impression of the extent to which horses have been challenged by a journey and provide us with an impression of the rate and duration of recovery. We can reasonably suggest that we should be most concerned, not when we observe transient minor changes, but when adaptation fails and disease emerges.

Shipping Fever - a potentially fatal pleurisy and pneumonia, can affect any of the literally millions of horses that are transported nationally and internationally each year. The majority of horses transportted by air travel in metal or wooden containers - so called "air stables" or "jet stalls". These containers have in the course of the 1990's, largely replaced the open topped "open stall" systems, in which horses were transported by air in the past.

Previous research, sponsored by the FEI (Fédération Equestre Internationale) and the ILPH (International League for the Protection of Horses), has shown that the incidence of Shipping Fever in horses transported in open stall systems was about 6% (Leadon et al. 1990). Horses were studied during a flight from London to Sydney. The aeroplane used for this flight was a specially chartered Boeing 747. A total of 112 horses were carried on this flight in open stalls that were arranged so, as to carry seven stalls across the width of the aeroplane.

Measurements included temperature, relative humidity and numbers of bacteria and other airborne particles within the aeroplane and blood samples were also taken from the horses before and after the flight. There were significant differences between the conditions experienced in flight and during refuelling stops. Surges in temperature and relative humidity occurred and although they may not in themselves have posed a major challenge to the respiratory system of the horses, these factors may have added to the challenge presented by the large increase in micro-organisms that were found when the aeroplane was stationary. These large increases in micro-organisms may have contributed in the development of respiratory disease/ travel sickness/shipping fever on arrival in Australia in seven of these 112 horses (6.3%). There were significant differences between the degree of change seen in blood samples from normal/unaffected horses and those affected by shipping fever.

Studies of the present situation suggest that the incidence of shipping fever in horses transported long distances by air can now be as high as 20%. This study and other similar studies led to the introduction of an in-flight, equine veterinary clinical service for horses travelling by air to Australia from the UK, USA and Ireland. Recent studies have been able to show that the introduction of this service has led to a 50% reduction in the number of days of treatment required for horses with shipping fever.

However, what is somewhat alarming is that the incidence of shipping fever has appeared to increase over the past few years. This has coincided with different methods for transporting horses. Analysis of recent data on horses shipped for periods of greater than 12 hours, has shown that with some flights, the incidence of shipping fever can approach 20% (Leadon and Kläy 1999, unpublished data). While the majority of these cases are mild, some cases require complex treatment and a number of horses have never fully recovered.

Collaborative studies aimed at increasing our knowledge of the environment in which horses are transported have recently been approved for funding by Ireland's National Development plan. It seems that there is considerable variation in water vapour density in the cargo hold, during flight, between flights and between even apparently identical aircraft. Water vapour density can fall from 14 g/cm^3 on the ground in temperate climates, to below 4 g/cm^3 at altitude. This dramatic reduction in air moisture content can occur within as little as one hour after take-off and be sustained for as much as 12 h on long haul flights. The highest incidence of Shipping Fever in our most recent studies, has been seen where the lowest water vapour density has been recorded.

2. Some recommendations on the transport of horses

The following recommendations were compiled by Des Leadon and Reuben Rose, following a suggestion made by Michael Osborne at a meeting held at the Emirates World Series King George at Ascot. They were intended to provide guidelines for trainers sending horses to compete in World Cup races. They are based on those published by the International Equestrian Federation (FEI) in 1990 and on research carried out by the Irish Equine Centre and the Hong Kong Jockey Club which was presented to the International Conference of Racing Analysts and Veterinarians in Stockholm, Sweden in 1994. They are in essence equally applicable in general terms, to both road and air transport. In many ways, it makes little difference to horses whether they are being transported in a vehicle that has wings or one that has wheels. Fundamentally, we are placing large animals in a confined space and moving them, in confinement, from point A to point B.

The recommendations were offered to CESMAS (Conference on Equine Sports Medicine and Science) as a source of advice from clinicians to owners – who are transporting horses long distances. Providing good health care for transported horses requires focus prior to travel, during the journey and after arrival.

2.1 Prior to transport

2.1.1 Journey planning

Wherever possible, hostile or potentially hostile environmental conditions en route should be avoided. Adding extremes of heat or cold to the challenges inherent in transport is always undesirable, use competent staff, drivers, grooms and specialist "flying grooms". Ensure adequate ventilation. Avoid as far as possible, prolonged stationary periods in traffic or at refuelling stops. Provide appropriate tack. Bring sufficient food and water. Have an effective means of restraint. Plan for rest or recovery periods. Check that veterinary help may be available if required. Notify the point of arrival of the journey plan and any special requirements.

2.1.2 Training and familiarisation

Many horses have become familiar with transport from the time that they are foals. Most, even many that have never been transported before, demonstrate just how "biddable" these wonderful animals are, and will relatively readily allow themselves to be loaded and confined in a transport vehicle. There are, however, a small minority whose temperament is more questionable, or whose history can be suggestive of resentment of transport. In these cases, familiarisation sufficiently in advance of transport to be meaningful and if absolutely necessary, tranquillisation by a veterinarian, for safety reasons and to facilitate loading on the day of transport, may be indicated. Allocation of greater space within the vehicle may also be helpful.

2.1.3 Water and electrolytes

There is a belief that it is necessary to "preload" horses with fluids and electrolytes prior to travel. This may well be unnecessary unless a horse has a demonstrable history of dehydration and excessive or uncontrolled administration of electrolytes may actually have adverse effects on water and electrolyte balance. It is prudent to check that a horse that is to be transported, has been drinking in accord with its own norm in the days leading up to transport and immediately prior to transport.

2.1.4 Body weight

Horses tend to lose weight on journeys. The amount of weight lost can range from 0.45 to 0.55% of total body weight (about 2.5 kg in a normal mature Thoroughbred horse) per hour of transport. This weight loss may reflect reduced dietary intake during travel, the evacuation of the contents of the rectum and muscular work associated with maintaining po-

sture during movement. It is not unusual for horses to lose 20 kg on international flights and horses with shipping fever may lose 35 or more kg, en route. Exceptional racehorses, well used to international travel may however, fail to lose even a single kilogram on flights of 12 hours or more. These horses are often among the most successful international competitors! In contrast, horses travelling on extremely long road journeys (up to 60 hours) have been found to lose up to 5% of their body weight.

Weight lost in transit tends to be regained over the following three to seven days in healthy horses and perhaps over longer periods in horses with shipping fever. There is therefore, much to be gained from weighing horses prior to travel to establish a baseline for comparison with weight status on arrival and in the recovery period from the journey.

There is no guarantee that any scales available for post arrival weight measurement are identical with those prior to departure. The body weight of the accompanying groom or of some heavy piece of equipment or feed that has been transported with the horse should give an indication of the comparability of both sets of scales.

2.1.5 Respiratory Health and Disease

One of the fundamental rules of transport is "*sick horse on, sicker horse when getting off*". The importance of avoiding the shipment of horses of compromised health status, other than for transfer to a hospital or other clinical facility, cannot be overemphasised. This is especially true for horses affected by respiratory disease. Horses with fever or nasal discharge, those with a history of exposure to other horses with infectious respiratory disease (e. g. strangles or viral respiratory infections) should not be transported unless passed as being fit to travel by a veterinarian.

2.1.6 Medication

Unnecessary medication should always be avoided. Adverse reactions are an ever present hazard with all therapeutic substances. Tranquillisers should be administered by a veterinarian. *Acepromazine* which seems to be widely available world-wide may be contra-indicated in entire colts and stallions (risk of paraphimosis, Fig. 4).

The so called "prophylactic" use of antibiotics is also contra-indicated. This highly questionable practice may lead to respiratory disease caused by bacteria which are resistant to the antibiotic which was administered in the mistaken belief that it would prevent disease.

The use of immune-stimulating agents should also be avoided. They can result in depression, fever

Fig. 4 Paraphimosis: A constriction preventing the penis from being withdrawn into the prepuce

and other undesirable effects that can be difficult to differentiate from shipping fever. Too little is known of their potential efficacy in the prevention of shipping fever to make their administration justifiable. Any substances that reduce the immune and inflammatory response (e. g. non-steroidal anti-inflammatory drugs such as phenylbutazone, corticosteroids, etc.) also are contra-indicated prior to shipment.

Any substance given prior to transport in horses destined for racing or other forms of competition may potentially be detected in the course of post arrival forensic procedures (dope testing).

There is a long standing horse transport industry practice of seeking the administration of mineral/laxative oils prior to transport, in addition to feeding a light laxative diet on the night(s) immediately prior to transport. The latter may be more important than the former. Both practices may have their origins in the days when horses shipped for warfare tended to develop laminitis after long sea journeys. Although it is tempting to state that laxative considerations prior to transport may be unimportant, it is salutary to remember that there have been a reported series of colic related equine fatalities at altitude, on flights to destinations within the former USSR.

2.2 During transport

2.2.1 Behaviour and injury

Horse behaviour should be monitored regularly throughout any transport. Personnel should offer verbal comfort and companionship, apply restraint or where appropriate tranquillise as required. Additional skilful help may be required urgently if equine frenzy occurs. It must be recognised that it may be foolish for personnel to pursue valiant attempts at restraint in some extreme circumstances. Any depression or injury in horses should be noted and appropriate first aid action taken wherever possible.

2.2.2 Hay and water

Hay or perhaps the more dust free "haylage", should be available on an 'ad lib basis' throughout the journey. Water should be offered every four to six hours. Addition of electrolytes to drinking water should be avoided as it may depress water intake.

2.2.3 Environmental monitoring

During any journey, environmental temperature, relative humidity and the concentration of contaminants in the environment may change. During air journeys in particular, although also in road journeys, it may be helpful to place a wet and dry bulb thermometer in the vehicle or air stable, near the breathing zone of the horse and to record temperature and humidity at regular meaningful intervals. This information can be very helpful in deciding whether to cool or perhaps warm the environment in which the horses are being transported. It provides an objective measure of the success or failure of attempted improvement. Horses travel better in cool conditions than in hot conditions and temperatures in the mid-teens Celsius are probably ideal if attainable. In greater heat, high relative humidity or where horses are sweating, water should be offered more frequently than the norm.

The inevitable accumulation of faeces and urine associated with confinement will lead to a build up of environmental contaminants. These contaminants will be at their most deleterious when the vehicle is stationary. Stationary periods should be kept to a minimum. Recent research work carried out in Japan suggests that in the case of long road journeys, there is benefit in removing faeces and urine soaked material, during compulsory driver stops. This is clearly impractical during air journeys.

2.2.4 Shipping fever and other illness

Shipping fever is the most common illness found in horses that are being or have been, transported. This condition is a respiratory infection characterised by signs of depression, inappetence, fever, increased respiratory rate, nasal discharge, coughing (often a distinctly soft, moist cough) and can rapidly progress to pleurisy and pneumonia. It may be better described as **transport-related respiratory disease**. It can occur in as little as four to six hours after departure in all journeys. Initial signs of this condition may be seen relatively soon after take-off in air journeys, which have been preceded by long road journeys or by long delays spent in a road vehicle while awaiting loading onto aircraft.

The incidence of this condition in long journeys may be 6% or perhaps even much higher. In any shipment of 16 or more horses it is reasonable to anticipate and provide for one or more instances of this disease complex.

Not all cases of shipping fever are apparent during the journey or immediately after arrival. A substantial number of cases will be inapparent until the morning after arrival or thereafter.

Where the above clinical signs are observed during road journeys, veterinary help should be sought en route or, if this is impractical, be sought for the moment of arrival. In air journeys, where a veterinarian is aboard the aircraft, clinical intervention should occur immediately. It has been shown that prompt intervention in this manner reduces the duration of therapy (and thus of the severity of the illness) by 50%. Colic and all of the other unpredictable conditions that are the inherent hazards of horse keeping, can also occur in transit either on the road or at altitude. The approach to dealing with them should be, in general terms, as described above for shipping fever.

2.3 After arrival

2.3.1 Behaviour

Horses may be visibly excited after arrival at any unfamiliar premises. After long journeys, this initial excitement may be followed by apparent "tiredness". If observed, fatigue should be monitored carefully. Horses should be allowed some gentle exercise after arrival, perhaps being led "in hand" or turned out into a small, confined paddock in which they are the sole occupant. They should show interest in hay and water within two hours of arrival. If they fail to do so they should be considered to be depressed rather than tired and appropriate further examinations, especially examination of rectal temperature, should be carried out.

2.3.2 Rectal temperature

The taking of rectal temperature immediately after arrival and twice daily for at least the first three days after arrival is essential after all long journeys. Fever (temperature > 39.0° C) or any of the aforementioned signs of shipping fever or any other disease, are indications for immediate veterinary intervention.

2.3.3 Body weight

Check the comparability of the scales used prior to departure with those available after arrival. Record the weight lost during transport. Monitor the rate at which weight is regained.

2.3.4 Resumption of normal activities

Allow at least one day of rest after journeys of up to 12 h. At least three days of recovery should be provided for after air journeys of 12 h or more for all but

exceptional individuals. Allow, where possible, a seven to eight day recovery period to provide a window of opportunity for treatment of shipping fever and its resolution, if racing or competing overseas. This interval should facilitate clearance of essential medication, prior to competition.

Be guided by behaviour, weight gain (and other parameters as perhaps haematology and blood biochemistry) in selection of an appropriate post-arrival training regimen, prior to competition. If you wish to monitor blood biochemistry after arrival, bring a frozen, pre-departure plasma sample with you, so that post-arrival samples can meaningfully be compared with those taken at home.

2.4 Return journeys

The effects of long journeys may be cumulative. Remember that you may be superimposing the challenges of competition on the journey effects to your destination, and then adding further return journey effects, if you do not allow appropriate recovery phases between each of these events (Leadon 2004).

o O o

Might this be a future possibility for the transport of foals? (source: *Pinterest*)

Obituary

Prof. W.R. "Twink" Allen

Fig. 5 Professor William Richard Allen, universally known as "*Twink" Allen*, died on June 6 at the age of 80 after a short illness while in hospital in Dubai, writes ***James Crowhurst*** (also a member of our veterinary advisory committee) in the Owner Breeder Magazine (01.07).

A New Zealander, Twink Allen qualified as a vet in Sydney in 1965 and, after a year in farm practice in New Zealand, a severe car-accident resulted in a year in hospital and retirement from farm work. He travelled to England and enrolled for a PhD under Dr Roger Short at Cambridge University. His thesis on placentation and early pregnancy in the mare demonstrated the origin and role of the endometrial cups and was completed in 1970.

He continued to work on early pregnancy with a herd of experimental ponies at the Agricultural Research Council unit in Cambridge, establishing a rapport with both veterinary practices in Newmarket and with Peter Burrell, Manager of the National stud, and Col Nat Frieze, Chairman of the TBA, who helped to raise funds for his work.

Allen set about the many challenges of breeding mares in the 1970s. He developed and helped bring to market prostaglandins, *Regumate* and the routine use of ultrasound scanners per rectum in mares. These, and other techniques greatly improved fertility in broodmares by controlling the oestrus cycle and identifying and managing early twin pregnancies. Horse breeding became much more efficient, allowing stallions to cover many more mares and raising fertility levels. Much of the research was funded by the TBA and the Levy Board.

An enthusiastic and inspiring speaker, Allen helped educate many vets, breeders and research workers in improved breeding techniques. In 1972 with Peter Rossdale he organised the first International Equine Reproduction Symposium in Cambridge. This four-yearly event attracts all the foremost researchers in the field and its proceedings became a vital resource.

In 1989 the ARC Huntingdon Road Unit closed and funds were raised to build the Equine Fertility Unit at Mertoun Paddocks, Newmarket, a world-class facility which was opened by the Queen. Allen and his team continued research into stem cells and endometrial cysts and with Huw Neal he developed laparoscopic stimulation of oviducts with prostaglandin gel to great success.

Allen was awarded the 'Jim Joel Professorship' at the Cambridge Vet School funded by the Childwick Trust. With research material saved and funds remaining from the unit, he set up a small lab in a cottage on Cheveley Park. Over the next three years the "Paul Mellon" laboratory produced over 50 scientific papers. Twink's enquiring mind, enthusiasm and many overseas contacts resulted in becoming an expert in reproduction of many other species, especially the camel and the elephant, and, with Sheikh Mohammed, to set up the Dubai Camel Reproduction Unit.

After retirement, a lifeline came from the Sheikhdom of Sharjah, where Twink was offered the directorship of the Reproduction Unit of the Sharjah Equine Hospital. With his research assistant Dr Sandra Wilsher he continued research into equine pregnancy and modern breeding techniques.

During the summer he was able to return to Newmarket and dispense gin to his many friends.

Once Twink was invited to Clarence House by the Queen Mother to discuss her racehorses and was horrified to discover, when she offered him a gin and tonic, that she did not keep his favoured Bombay Sapphire. The following day he drove back to Clarence House with a bottle of the stuff, handing it to the butler to pass on to her (The Telegraph, 06.07.2021).

He was awarded membership of the Victorian Order by the Queen and made CBE in 2002 for his contribution to horse breeding. Moreover, it must not be forgotten that the magnificent stallion statue on the roundabout into Newmarket was his idea and with his determination the money was raised to see it to fruition for the millennium (Crowhurst 2021).

In the opinion of James Crowhurst, ***"no veterinary scientist has made a greater contribution to the horse breeding industry"***, and the Australian Equine Veterinarians described him as ***"godfather of equine reproduction"*** (Horsetalk.co.nz 2021).

Both these appraisals are shared with great conviction by breeders in several smaller European countries, e.g. Belgium, Finland, Poland and Switzerland. In the latter country, Professor Allen spoke both at the University Berne ("The Enigma of the Pregnant Mare – Morphological, Immunological and Endocrinological Studies of Early Fetal Development and Pregnancy Failure", 1988) and at the seminar "Gestütsmedizin" (Schweizer. Pferdezuchtverband and Vereinigung Schweizer Vollblutzüchter in Solothurn, 1988) (Fig. 6).

Fig. 6 Seminar "Gestütsmedizin" in Solothurn (1988), Twink Allen in the company of the Swiss veterinarians Meier, Wälchli, Verena Bracher, Barrelet and Held (Courtesy of Elisabeth Weiland)

And on top of this, we all also made profit of his wisdom as well – see our newsletter 30, April 2019 (The maternal grand-sire effect), where he contributed with the study "Factors influencing pregnant mare serum gonadotropin production", published in the magazine "Nature 223", one of the most important scientific publication.

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If there is any area you would like covered in these very informative newsletters you should contact Kerry on kryan@itba.ie and she will forward your request on.

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