



Care Of The Racehorse

*“A righteous man regardeth the life of his beast;
but the tender mercies of the wicked are cruel.” Proverbs 12:10*

The head lad in the yard will be expected to ensure supplies of everything are always on time, of top quality and in full measure. He should have the authority to hire and fire but should use it sensibly. All medical treatments must be accurately recorded for future reference, with worming and dentistry programmes and all vaccinations kept up to date. He need not bother taking temperatures routinely, but any horse that does not eat up should be checked, as well as any known invalids and any that may appear a little dull or off-colour. The thermometer should be attached to a clothes peg, which can be clipped to the edge of the rug. The head lad will be expected to notice anything amiss when he feeds first thing and again when he checks the mangers before evening stables. He must make absolutely certain that any medication cannot possibly reach any horse other than the one being treated, and that treatment stops the required time before any race so as to avoid positive tests. He will be responsible for treatment of wounds and removing loose shoes but for best results the trainer himself should be responsible for day-to-day monitoring of the horses' legs for work-related damage. However, the head lad should be familiar with the current status of any ongoing problem legs, as he may be required to stand in when the trainer is away. Assistant trainers, in Britain at least, tend to be pupils under some degree of instruction; by the time they are even vaguely capable of making an informed decision they are normally training in their own right.

The trainer must, for best results, examine each horse's forelegs every day when he is at home. When his runners are in early races he is better employed returning home to see the remainder of the string rather than socialising, although most owners fail to grasp this relatively simple concept. The changes that take place in the legs of a racehorse in training are often subtle and easily overlooked, but on the other hand many horses never do have cold and fine legs whilst they are in hard work, hence this is a vital area of operations and not one in which to delegate. Horses rarely break down with a soft tissue injury without warning signs having shown previously. If the trainer cannot be present at evening stable time he should be certain to feel, at least, the legs of any problem horses before morning exercise next day.

This is in no way supposed to be a veterinary paper and any observations on soundness should be interpreted with common sense. The vet is the technical expert and should always be consulted in case of doubt. A long-term relationship with one individual is to be recommended, although he may be part of a group practice and so have the opportunity to compare notes with his colleagues in unusual cases. It is important that the veterinary advisor be aware of the realistic expectations and principles on which the stable is to run and that his professional advice should be formulated on that basis, bearing in mind that very often we will be looking at financial as well as physical damage limitation and at making firm decisions in a war situation. As a rule, expensive and long-term procedures, particularly those with

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questionable outcomes, should not be applied to marginally talented horses.

It is not uncommon for a horse to be terribly lame with a comparatively minor infection from a wound. This possibility should always be considered and addressed if there appears to be any evidence at all of broken skin near the site of the problem, as even a chafe from the boots can sometimes result in an alarming scenario exactly reminiscent of a major injury. Dermobion, or something similar, should be liberally applied to these cases whilst awaiting x-ray, and in many cases a miraculous improvement will take place.

The most devastating nonfatal injury for a racehorse is a tendon strain. Once the horse himself is conscious of any tendon injury the prognosis is always bad. In fact, as a generalisation, all time spent rehabilitating genuine established tendon injuries is time wasted. Most of the successful rehabilitations may not have been bona fide tendon strains, despite giving the appearance of being so. Mathew Hodson's *Reader*, published around 1700, recommends that we "take a live cat, either wild or tame, and cut off her head and tail, then cleave her down the chine, and clap her hot, the Bowels and all, upon the strain, and remove it not for forty-eight hours, and the effect is great". Although less high-tech than some of the more recent brainwaves, this is not recommended! Avoidance, rather than cure, of tendon injuries should be foremost in our minds, and visual monitoring of tendons is as important as feeling them.

Fortunately, with proper shoeing and training, this disaster should be an uncommon state of affairs. A major tendon strain out of the blue is most unlikely in any flat racehorse following a programme of progressive exercise loading. Sometimes a slight irregularity will occur which can be seen but not felt, and tendons should instinctively be inspected as well as felt, both from the side and from above. If we stop immediately at this stage, whatever

the horse's racing programme may be, the prognosis for recovery is excellent. Experience will show that minor degrees of heat and fleshiness need not be the cause of stopping work in many horses, but any visible deviation from the perpendicular in any one tendon should be treated with grave suspicion from the outset. Initially any slight heat should be removed by cold hosing and then the leg should be either lightly blistered with iodine or painted with DMSO to increase the blood supply. The blister should be a working blister, not a strong one, and it is usually sufficient to paint the leg with iodine without rubbing it in. If we don't think we did enough we can very gingerly repeat in a day or so. The second application should be cautious for fear of overreaction, and in fact we should be extremely cautious even with the first application on anything other than black legs; on a white leg even a diluted solution may seem severe. All we need to do is to excite the blood supply to the extent that the tendon itself may appear up to double in size, not the whole leg. In a few days it will be back to normal and usually all sign of damage will also be gone. Never bandage over an irritant. The return to serious work should be cautious.

A bandage bow or disfigurement on a tendon caused by ill-fitted boots or bandages should immediately be dispersed by vigorous hand rubbing before it can become a long-term disfigurement.

This basic minor irritant treatment should also be applied to slight fetlock joint wear and tear as long as x-rays show no actual damage. DMSO is also quite effective and will increase the blood supply without giving the filling; however, care must be taken not to use it too close to a race. Windgalls, or soft swellings on the upper aspects of the fetlock, are very common and, if minor, cause little inconvenience. However, deterioration in the situation normally predicts at best some arthritic change in the joint. Those horses with windgalls should be treated daily with either a

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proprietary cooling lotion, or with a mild irritant, according to which suits them best. Such treatments should always take place after the trainer's inspection.

Many older horses may have joints that look fairly rough and still race quite normally. They should, however, be carefully observed and the exercise rider must always be careful both to choose the very best available ground and always to keep his mount well balanced with no careless stops at the end of his work. These joints can be treated as for windgalls, or they can be regularly hosed. In more severe cases a course of Adequan injections is advisable, or an oral supplement of chondroitin sulphate can be fed to provide the same therapy. Old horses with these chronic minor problems may stand in bandages, as discussed below.

Although these measures are rather simple and old-fashioned they have proved effective in maintaining soundness in hard-raced horses over a long period. There have, however, been one or two fairly recent developments that make our life easier, including arthroscopic knee surgery and scans of bony and soft tissue, and these of course remain in the vet's domain.

As a general rule, standing bandages are not to be used except on horses whose legs we accept as already being a serious worry, because they definitely prevent proper monitoring and also because the bandage marks will be seen, in Britain at least, as advertising damaged goods. If a horse is obliged to stand in bandages, perhaps because his fetlocks are so fleshy as to cause concern, great care must be taken that they are always correctly fitted. In fact it may be safer if only certain members of the team are ever allowed to put a bandage on, so as to ensure that this is done properly. Quilted pads are best under a standing bandage. When it is correctly fitted the horse should give the impression of having his leg encased in a regular tubular shape from the bottom of the fetlock to the top of the tendon. Each lap should be the same size and the

tension just enough that everything will still look very similar next morning, neither like a tourniquet nor hanging off like a pair of football socks. Actually if it looks right it probably is right, and if an aerosol marker is lightly sprayed from top to bottom it will be easy to follow the pattern subsequently. If it looks wrong it should be done again, before using the spray. The thickness of the quilt should protect against bandage bow, but great care is essential. Any small irregularities or wrinkles visible on the leg when the bandage is removed should be vigorously rubbed by hand to disperse them. The lad doing any horse standing in bandages must take them off as soon as evening stables begins so as to allow us to examine the legs after an hour and a half without the bandage. The bandage disguises a lot from both eye and touch, which is why we are reluctant to use them. Bandages must never be fitted over any irritant, as the reaction will be too severe.

Anti-inflammatory drugs also disguise what is happening in the legs of a horse in training, and should only be used on a horse in work under exceptional circumstances and in consultation with the vet.

In some cases good results can be had by standing very fleshy-legged animals with their forelegs coated to the knee in an amoricaine clay. There are several proprietary brands and this method does away with any risk of bandage bows, but it will still disfigure the hair on the legs. There are also many jointy horses that are greatly helped simply by hosing their legs, which has no contraindications. There was a box that had a stream running through it when the Old Man trained at Exning, near Newmarket, in the Harraton Court yard where Percy Peck trained Cicero to win the 1905 Derby, although by my father's time it had fallen into disuse. In fact, anyone with a stream on their premises could easily construct an open-air stall for this purpose. Exning was the original settlement in the area that

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subsequently became the headquarters of British racing, before the 'new market' became a town in the Middle Ages. Lord Rosebery had three Derby winners trained there, the others being Ladas in 1894, and Sir Visto in 1895; both came under the charge of Mat Dawson at Melton House, where the bungalows now stand next to St Martin's Church. Golden Miller, winner of five Cheltenham Gold Cups and the Grand National was trained at Beechwood House, which stood opposite the White Horse. Grand Parade, winner of the Derby in 1919, is buried at Rose Hall at the other end of the village. George Digby trained Souepi to win the Stayers' Triple Crown from Harraton in the 1950s, and may have been one of the last trainers to have his string out twice a day.

Exercise bandages are, in most cases, to be used only when we really are already in tiger country. They are difficult to fit correctly and positively dangerous if fitted wrongly. There must definitely be only one or two trusted lads allowed to fit them and these should be firmly impressed with the serious nature of the task. Any exercise bandage on a foreleg not extending right to the top of the tendon is risking catastrophe, just as a hose pipe will probably fail adjacent to any binding. This risk does not seem to be the same on a hind leg and here rundown bandages need not go right up the leg. In order to strengthen the horse's suspension it will help to incorporate a splint between the down run and the return of an exercise bandage. This splint is made from several pieces of Vetwrap pressed together and the length can be easily trimmed as required. We first bandage down, make a figure of eight, fit the splint below the fetlock, repeat the figure of eight and continue back up with the splint neatly incorporated into the bandage. Again, all the laps should appear regular in size. The tension of an exercise bandage is critical, and whilst it should be tighter than a standing bandage, care must be taken that it is not too tight, and that the tension throughout is

absolutely even. When correctly fitted, exercise bandages should look as if they have been painted on. Although they do have a Velcro fastening this should be reinforced with tape which is applied without added tension. If in doubt, expert instruction in bandaging for work should be sought before embarking on this practice. If any horse has broken skin, such as a chafe or a rundown, in the area to be covered by a bandage it is a good idea to first pull on a section taken from a pair of tights under the bandage to avoid further irritation.

Knees should probably not be x-rayed unless there is some reason to suspect a problem. Our programme is largely dependent on two-year-old runners and very many of their knees, on x-ray, will be seen to be immature. This may often result in horses being put aside which could be competing successfully, and it may also result in even more time being wasted on those that will eventually fail anyway. As long as our charges are sound we must, as throughout this method, believe what we can see with our own two eyes, and get on with it. At the same time we should be certain to use those eyes to spot any changes immediately they occur. Any localised lump on a knee must be x-rayed, although more general soft filling may, as long as the horse is moving well, be due to a bump in the stable, possibly on the manger by a greedy feeder, if that should be the case his feeding arrangements must be changed. The fleshiness should be closely monitored and treated as other minor soft tissue problems. Whenever any horse in training begins to toe out markedly at the walk he is probably trying to save his knees, and the vet should be consulted. If knee lameness is indicated by nerve block, but the normal x-ray views appear clean, a skyline picture will often reveal changes. Knee problems are far less serious now that chips can be removed without invasion of the joint, and a speedy recovery is greatly assisted by treatments such as Adequan. Of course, the resale value of the

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This is the story of a reformed RAKE. A horse called GALLOWAY HILLS who, when we saw him in his box at Newmarket yesterday, looked as though

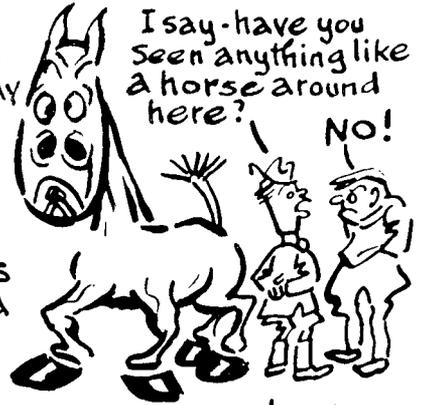


butter wouldn't melt in his mouth, or a carrot either.

When GALLOWAY HILLS went to the Sales as a colt

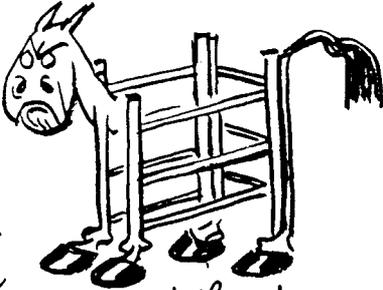
I say - have you seen anything like a horse around here?

NO!



No one would look at him

— and so the poor thing went home feeling like a clothes-horse.



Extremely depressed GALLOWAY HILLS tried to go into retirement. Whenever he saw a hedge



he stuck his head in it and wouldn't come out.



But a trainer called Mr O'GORMAN has changed all that.



Although Mr O'Gorman hasn't exactly crawled into a hedge to show the horse that there is no future in that kind of thing he has



← persuaded him to run in the Cesarewitch Which is more than any trainer could get TISHY to do.

Cartoon from 1953 featuring Paddy O'Gorman's first winner as a trainer, Cesarewitch hope Galloway Hills. 'Tishy' was a notoriously unreliable performer and the bête-noire of cartoonist Tom Webster. (Courtesy of Daily Mail)

horse may be sorely affected.

Two other common injuries to the foreleg are suspensory ligament sprain and damage to the sesamoids, either by fracture due to a blow or by having a piece of bone torn off where the ligament attaches. These can both occur out of the blue and the outcome is hard to predict, particularly when both aspects are involved.

Split pasterns are fairly common, and these frequently occur without warning, although certain training grounds may be a contributory factor. However the prognosis is normally very good, and although some cases may require surgery to stabilise them, many will heal with box rest alone.

Pulling up too sharply or too sloppily after work may well be implicated in many injuries; riders must be constantly reminded to pull up carefully, and to trot their mounts out properly after all work. Overall it can prove difficult to persuade exercise riders to achieve the correct balance between having horses relaxed in their work and keeping enough hold of their heads in an attempt to prevent needless injuries. There is always the danger of horses either hurting themselves because they are absolutely uncollected or becoming far too keen due to being grabbed hold of too severely. The current fashion for one-handed salutes by winning jockeys is very unprofessional as the dangers to tired horses are obvious. It should not be countenanced by any trainer with even a basic understanding of racehorses' legs.

Leg Care and Soundness

"A righteous man regardeth the life of his beast: but the tender mercies of the wicked are cruel." Proverbs 12:10

Sore shins, the most widespread problem with young horses' legs is, happily, time wasting rather than serious in the majority of cases. This condition involves stress-induced changes in the cannon bone, usually in the foreleg, and these then cause discomfort in the tendon running over it. If we hope to run the stable as

planned we can assume that perhaps two-thirds of the team will be effected to some extent. There appears no way to avoid this syndrome short of a very light training regime. However, as previously discussed, the success of the enterprise depends absolutely on rapid turnover of horses, and as there is every likelihood of horses unaffected at two years suffering at three, we will attempt to accept this problem and to address it in the most practical manner.

As soon as the two-year-olds get to a two minute rate of speed we should always have the prospect of sore shins in mind. There is no way of predicting exactly when, or indeed whether, any particular horse will be effected. Particular attention must always be paid to the shins of all two year olds at evening inspection, but the manner of this inspection is important. The shins must be felt very lightly, with minimal pressure, and the contact should start at the knee. Both shins should be instinctively visually inspected for any forward deviation in the profile. Immediately any animal gives reason to suspect any awareness of his shins a basic plan must be implemented. The lad must be instructed that on no account should he touch this horse's shins, as in many cases a completely cured horse will continue virtually to fall down due to the association of pain from previous handling of a sore shin. If his legs get dirty at exercise they should be hosed and not brushed until the episode is over. The shins should be treated with a cooling lotion, but this must be liberally applied without putting any pressure on the leg at all. The horse should be immediately restricted to walking exercise for a day or two. After a couple of days he can resume gentle trotting and assuming he moves well, which he should, as long as we did spot the first sign, he should have lengthy trotting exercise for ten days. Most cases can then be gently returned to the normal routine, and may be back in strong work in less than a month. It is pivotal to the early return to work that the shin is spotted before the horse is lame, and

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that considerable trotting exercise takes place, both to accelerate the healing process and to maintain enough fitness for an easy return to work. Obviously, as in all soundness matters the horse's upcoming races must be regarded as secondary to the treatment. Horses with sore shins do not wear boots at exercise, and the farrier can be advised to handle their legs gently. Occasionally stress fractures occur in a shin. These horses will normally be very sore and should be x-rayed to determine the extent of any damage. Although a rapid return to work is impossible for these animals, the long-term prognosis is good in most cases. Although possibly dismissed by some as crude, this method has proved sound practice over an extended period; it does require considerable vigilance in order to prevent exacerbating the first damage to the shin.

Once again, the absolute necessity of all horses being carefully pulled up after their work, and of downhill stops being avoided when at all possible, should be stressed on a daily basis if we wish to minimise these injuries. Many horses are prone to taking a bad step when tired, and one bad step can be enough to do catastrophic damage. The stable jockey must also be aware of the importance of pulling up correctly after a race, and particularly when cantering back to the paddock area.

It is extremely common for horses in hard training to lose the fluency of their action to a greater or lesser extent, particularly as mentioned elsewhere, in their slower paces. Traditionally these animals are referred to as 'jarred up', and some degree of shoulder or knee soreness is usually suspected. Dramatic improvement has been demonstrated in some apparently typical cases by the use of Isoxsuprine, which would appear to indicate that some of these horses were more likely to have been suffering foot problems rather than simply from being jarred up in the accepted sense. This is worthy of further investigation. Under the bizarre English Jockey Club Rules

there is no indication of a safe withdrawal period for this extremely volatile medication, and it should therefore be used with great circumspection on horses that are likely to run.

Fortunately in Flat racers the hind leg causes comparatively few day-to-day problems and these are often, like curbs, thoroughpins and spavins, easy to identify and not difficult to treat.

There seem to be a surprising number of pelvic fractures, and whether or not these are due to damage initiated by horses slipping when getting up in the stable is not clear. However, all horses must always have plenty of bedding, not just in the box, but in the middle of the box. The bed should not be, as is often the case, all banked around the sides so as to facilitate mucking out.

Stifle lameness is not uncommon and usually seems to involve a bone cyst, or OCD lesion, which may have to be removed, although many settle down with rest. These are a relatively new phenomenon, whether due to dietary changes in yearlings or improved x-ray facilities is not clear.

Stress fractures to the tibia occasionally occur but normally heal themselves with box rest.

Undiagnosed hind lameness or discomfort, with no obvious visible reason, has caused, in Britain at least, a proliferation of back specialists. Despite the earnest opinions of these opportunists, the vast majority of these problems are secondary and result from problems elsewhere. Listed winner Bestplan was repeatedly treated by a specialist for awkward hind action, but eventually showed a small knee chip that he was attempting to protect. Front limb involvement should always be investigated in these cases and the bona fide back injury may actually be quite rare.

In all cases of lameness that show no more obvious cause, some degree of foot involvement should be suspected. It should be remembered, however, that a sore foot does not guarantee that there is no other problem; a

problem in the foot, such as a corn, might occasionally result from the animal trying to protect something higher up the limb.

Injuries caused by interference are usually not serious, although they are a nuisance, and thought must be given to their prevention by alteration to the shoeing. Every effort should be made to eliminate even minor blemishes as they are always liable to infection and because they obviously take a horse's mind off running. Interfering injuries can sometimes be extremely difficult to remedy, as similar wounds can often result from different causes. With this in mind any changes should not initially be too drastic, so as not to make matters irreparably worse in cases of misdiagnosis.

Shoeing and Interference

"Stablish their feet." 2 Esdras 2:23

One of the most vital members of any serious racing stable is the farrier and it is essential to recruit one who is prepared to implement sound practices day in and day out. Unfortunately demand for farriers outstrips supply and best practice is far from universal practice. To complicate matters further, certain policies, which are definitely detrimental to correct foot care, are widely demanded by the customer base, and to a certain extent farriers, like trainers, merely respond to what the marketplace requires. Two obvious examples are the routine corrective trimming of foals and short heel shoeing to prevent shoe-pulling at exercise. It is common to hear someone praising his farrier for making an animal appear correct or because he never loses a shoe, irrespective of the outcome for the horse, so we can have some sympathy for the farrier's situation.

As observed in the section dealing with soundness, there is no pretext that this is a technical document, and it is simply intended to give practical guidelines for a successful racing stable to follow. However, these recommendations are based on long experience

and observation and will not be found to risk any contraindications, unlike many common current practices.

Although many stables do employ their own farrier, the practice does have its drawbacks as it is not unlikely that their man will suffer illness or injury, leaving them high and dry. It is better to try to select a suitable farrier from amongst those working for a firm, as this should guarantee cover in such an emergency. It is well worth making some additional arrangement to get the one we want. If the firm does employ a qualified girl it may be well worth giving her a try, as this job no longer requires such hard labour, due to the advent of machine-made shoes. A girl may prove to have a better attitude and more patience, both with the horses and the requirements of the job. She may also possess a surer touch when shoeing sensitive-footed animals, and she should have more time for our animals as other trainers normally prefer a man. We must insist on punctuality and reliability as very often a first lot horse will require attention before exercise.

We want the basic principles to be observed in shoeing these horses. The feet are to be kept as balanced as possible, remembering that they may have been previously corrected. The toes are to be kept short and the hoof angles are to be kept fairly high, probably around 50° in front and in most cases at least 54° or so behind. There is no need actually to measure Flat racers' angles in most cases, and as with the training times, these figures are mainly intended to convey the principle involved. It is impossible to maintain these angles once the heels have become too low, or as in many horses, nonexistent. If we think of the foot in terms of a mass of tubes, and then think of a Coca-Cola can, it is obvious that the more upright the tubes remain, the stronger it is. Once more, this is not rocket science, it is simple common sense. The increase in strain on the lower leg if the load is allowed to descend even half an inch further back from the fulcrum

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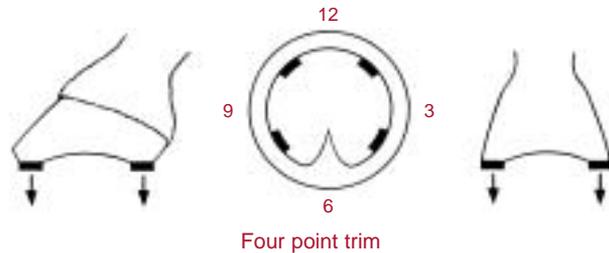
than is necessary must also be considerable. Certainly if we hope to push our horses to anywhere near the limit of their speed we must not increase the basic mechanical problems. Any radical changes which may be necessary in animals coming from elsewhere must be implemented gradually over two or three shoeings, although these shoeings need only be a few days apart.

Toe grabs are forbidden in Europe and are therefore not a subject for much heart-searching here but, viewing the question mechanically, it would appear to indicate that their use must greatly increase the destructive forces at work in any racehorse's foreleg. Lack of traction in the absence of grabs does not seem to present a problem on some fairly hair-raising tracks in England, although the surface can often be like a skating rink. Quite apart from the 24-hour-a-day strain imposed on the tendons by a toe grab, the extra shock to all hard and soft tissue when the foot is prevented from sliding slightly forward as it hits the ground must be very considerable. The fenders or bumpers on most modern cars are designed to reduce the shock of impact by one or two inches of movement and the same theory must apply to the foot when it hits the ground. If extra traction is felt to be essential some experimentation with a couple of grooves cut at 90° to the swedge or fullering might be worthwhile as a less destructive form of grip.

As a rule all our horses will wear plates with solid, not pencilled, heels. However, this might mean refitting hind plates for the front if only the pencilled-heel front plates are normally available. We might occasionally fit pencilled heels to a horse that persistently gets a front plate off at exercise to see if it helps, or we might try them on one that is interfering. The reason we reject them for general use is that the foot will tend to grow towards where the weight hits the ground, and as this design of heel must tend to move that point forward, it tends to encourage lowering of the foot angle. At best it

must make it more difficult to maintain the angle we require.

It is amazing how quickly the heels do collapse in some horses and, as mentioned elsewhere, many yearlings are now in this condition before we ever see them. There may be two reasons for this: firstly, the systematic destruction of yearlings' heels due to attempted correction of crooked or too upright stance, and secondly, the shoeing of yearlings very short in order to avoid losing shoes whilst lunging. Because of the latter problem, we break all yearlings barefoot, but it is often necessary to address damage that has already been done.



A fairly recent discovery, or more likely, rediscovery, is the four-point trim which attempts to reproduce the type of foot encountered in wild horses in desert areas, a much stronger and more upright foot. This is the high and hollow foot recommended by Xenophon three centuries BC, and by Simon of Athens even earlier. Basically the foot is trimmed to give bearing at what might be considered the four corners only, that is at 10 o'clock, 2 o'clock, 4 o'clock and 8 o'clock, if we regard the underside of the foot as a clockface. As the foot growth will tend to follow the weight, the wall should gradually become more upright. The rolling, or rounding off, of the toe (between 11 and 1 o'clock), and similar trimming of the sides (around 3 o'clock and 9 o'clock) also serves to reduce the flare that many British vendors find so desirable. The entire wall should be rounded off as for a horse that is to be turned out to grass. Quite good results have been obtained with the small number of cases tried so far. This experiment is

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worth pursuing and has no discernable drawbacks, although it is recommended as a barefoot system to improve the shape of the foot, and is unlikely to suit shod animals.

In all barefoot systems the edges of the hoof must be rounded off to prevent splitting of the wall, and pains should be taken to keep barefoot horses on the grass whenever possible. It may prove advisable to pursue the four point system for several weeks before reshoeing. By the time the yearlings are reshod they will often have reduced the size of their feet considerably by natural wear and tear from the size which they were on first coming into the yard, which should tend to make angles higher and the structure stronger. They should be shod with plates or with light steel shoes, and reshod in about 25 days. Once yearlings are correctly shod in front, the turning and figure of eight exercise should be kept to a minimum, particularly on soft ground, as they may easily step on a full-fitted shoe. In most cases there is no need for hind shoes at this stage.

For older horses with very flat feet or those with no heels, we may need to use wedge-heeled plates to achieve a more acceptable angle. The Elite Competition Shoe has about 2° of lift and it also has a lot more substance to it than regular aluminium plates. Unfortunately in some cases there might be a tendency for the wedged shoe to further crush the horse's heel and the situation should be monitored at each shoeing. A horse with very underrun heels may be helped by a bar shoe in order to attempt to bring the foot more under the column of the limb and to encourage the foot to assume a more upright growth. A front plate can easily be altered so as to be fitted to the foot backwards to do the same thing. The open toe is an added advantage when using a reversed plate for this purpose, but the original heels must be very well pencilled so as complete the rolled toe effect. After two or three shoeings most horses should be much improved, will have naturally

shortened their toe, and might be able to accept a more normal shoeing. Care should be taken to restore, if possible, the angle of the sole between the wall and the bar, which has often become a blur in these animals, at each removal. Wedge heels can also be helpful in the case of a horse which tends to run down either in front or behind.

Horses that have front feet of widely differing size are not uncommon. One foot tends to be big and flat and the other smaller and steeper - a box foot. This situation is not normally evident in very young animals and develops due to uneven loading of the two limbs being absorbed by the feet. The fact that the condition seems to become increasingly noticeable as the animal gets older implies that either the increased strain of exercise is to blame or that it may actually be an ongoing problem resulting from one or more faulty shoeings. It may result from the horse bearing his weight unevenly due to pain somewhere in the limb with the upright foot. If, as is normal procedure by many farriers, the higher heels on the tall foot are then reduced with a view to making it less boxy then that foot will be even less able to bear its fair share of weight. The bigger foot will be further crushed by assuming an ever bigger proportion of what should be an equal burden. Once this cycle is confirmed it can prove difficult to resolve. Thought should be given to reloading the tall foot with its full half of the bodyweight in order to reduce the crushing of the flat one, if necessary by the use of a pad or marginally thicker plate. If the problem of uneven stress on the forelimbs is not resolved there are likely to be more serious repercussions than odd feet.

It is essential that all our horses be shod as full as possible at the heels in an attempt to guard against collapsed heels and the corns that often result, although unfortunately this will always increase the risk of getting shoes off with badly behaved horses or when doing

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repeated turning.

Although there are schools of thought that advocate leaving the sole and the frog untouched, that theory is not suited to racehorses in training. If the sole is allowed to thicken there is every likelihood of the toe lengthening and the angle of the foot may then fall considerably. If the frog is not kept tidy there is danger of some degree of thrush flourishing beneath the surface.

It is most important that all horses are shod so as to wear their plates evenly as this will indicate that the foot is landing evenly, which in turn indicates that the leg encounters stress evenly. Any horse wearing one side more quickly should have the other side of the foot taken down slightly. For example a pigeon-toed animal will be seen to wear the outside of his plate more. Although this may not start for some days after he has been shod, once it does start it progresses more rapidly. The horse probably grows foot more quickly on the inside, which after a time makes the inside edge land first, and he then rolls all his weight onto the outside edge. The same thing happens to a human shoe; the heels may remain perfect for some time, but as soon as there is any lowering of the outside, perhaps initially caused by turning, that side quickly wears right away due to the extra loading.

We should always stress the importance of not inflicting any unnecessary damage on the foot. Clenches should be big enough to be secure but small enough that any pulled shoes cause minimal breaking of the wall. The use of the clenching tool or alligator should be careful so as to tear the wall as little as possible. The practice of cutting a deep groove across the wall to bed the clenches in should be discouraged, as again the wall is being destroyed. If for any health-related reason the horse stops growing foot at the normal rate it is essential that what he does have is protected. To further avoid breaking up of the wall the nails should not be pitched too low, but any nail inadvertently

straying too high should be immediately removed, and not, as is too frequently seen, left without it even having re-emerged at the wall.

The importance of the horse's foot as a barometer of his general health and wellbeing tends to be overlooked on a day-to-day basis, although the basic idea is universally accepted. A horse that seems to have very poor quality horn may well be suffering from some systemic disease and this possibility should be discussed with the vet, particularly should the situation develop in an animal which causes any other strange problems in his daily routine or which inexplicably loses his form. The recent reliance on dietary supplements, which supposedly improve the quality of horn, should not be the only action taken in these cases, and if several horses in the yard are affected there is likely to be more than a dietary problem. Minor laminitic episodes due to the same cause may be quite common but misdiagnosed, and this should be thoroughly investigated if any horse demonstrates reddening around the white line or in the wall of a white foot. The farrier must report all such cases on the understanding that they in no way reflect on him. Steaks or blotches of white on a black foot with no white hair at the coronet seem likely to be definite signs that all has not been well with the animal's general health. An unusual number of horses that interfere, even to a minor degree, in a stable with sensible shoeing policies may be another indication of possible disorder to the central nervous systems of the inmates. Veterinary advice should be sought and systemic antibiotic treatment initiated immediately. These marks tend to be common in the graduates of certain stud-farms and they are not omens of likely good fortune, in fact quite the reverse. Colonel Warburton seemed well aware of this indicator a century ago, as he wrote, "The foot should be of good size, at the same angle as the pastern, and the horn smooth and without rings and steaks,

which are sure indications of disease.”

There were a very high percentage of these white marks on black feet and red marks on white feet in the horses sold at Keeneland in September 1997. This might well have indicated some widespread sickness in the area in previous months, and it would be interesting to determine whether those horses as a whole achieved what might reasonably have been expected of them, or if they demonstrated any higher percentage of physical and temperamental weaknesses than any other group.

If any horse has feet so weak, due to poor quality and separating horn, that he is obliged to wear glue shoes we should, unless he has an imminent and attractive engagement, stop with him and attempt to resolve the situation. A very effective method of doing this is to remove the shoes and poultice the whole foot right up over the hairline for five days, replacing the poultice daily. The horse should then be left for three days before repeating the whole procedure two or three times, which may involve a month of box rest. In many cases the result will be enough foot to complete the season with careful shoeing. In case some systemic disease might be implicated we should seriously consider antibiotic treatment orally for the whole of this period. So as to avoid the possibility of removing the whole hoof with the poultice, it is essential to observe the periodic drying out stage with the poultice removed. This procedure was discovered by accident whilst trying to resolve a lame animal with a suspected splinter in his foot; although no splinter ever did emerge, the animal grew a great deal of new foot, and the method has proved very useful in re-establishing a healthy foot on several occasions since.

A milder stimulation such as iodine or Cornucrescine can be regularly applied to the hairline in less serious cases, and the animal can be kept in work. Great care should always be taken on white-legged horses, so as not to

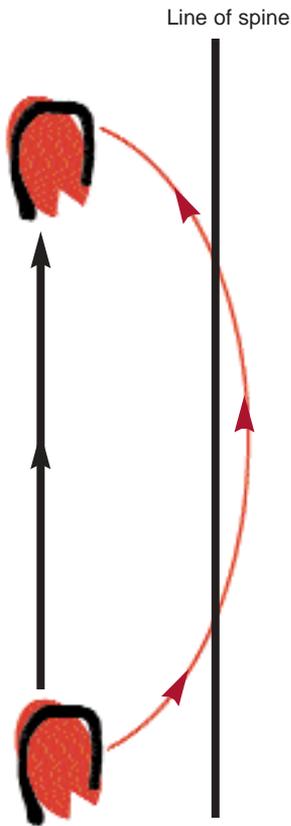
start any irritation that might turn into a sore heel. In white-legged animals DMSO might be preferable, but cannot be used close to race day. It is not normally recommended to use hoof dressings as they prevent the foot from breathing. The moisture from the grass combined with the washing of legs and feet will normally keep the feet in good condition. The nail holes of a horse with weak feet can easily be reinforced after shoeing by using super glue around them to prevent the wall from breaking; the glue should only be applied in a stripe half an inch wide connecting the nail holes on the same side. Weak-walled horses may be better gently clenched up with the hammer rather than the alligator so as to avoid tearing the wall.

The shoeing of the hind feet causes few problems in itself, and most of the string should wear plain plates, or sometimes light steel, with a toe clip in order to avoid the shoe shifting back. This programme assumes no roadwork, on the basis that cars and horses do not mix well, and most of the horses can be kept in plates all year in front and in plates or light steel behind. The advantages of this system are that any horse can run in what he already has on, should an opportunity suddenly present itself, and that the horses never go too long without being reshod, which may easily happen to a good wearer with regular shoes on.

Some alterations may have to be made in shoeing those horses that incur injuries through interference, and discovering the answer to some cases may prove difficult. However, no horse will give his best performance whilst he is hitting himself, and time devoted to this problem is normally time well spent.

The most common interfering problem is simple brushing of the inside lower hind leg with the opposite hind leg. The balance of the foot should be checked. If the foot is balanced, a three-quarter shoe is fitted with the short

[24]



Original ground placement and foot flight.

Ground contact and flight with medial extension shoe.

branch to the inside. In fact this is very common shoeing in Newmarket anyway. If this does not resolve the problem, in many cases reversing the shoeing, so that the short branch is to the outside, will. Many young horses brush out of weakness or when they are tired, and improve as they get stronger.

The more confirmed hind brushing cases tend to turn their feet out markedly and tend to be cow-hocked. We should visualise where the shoe print would be with normal conformation and shoe these horse in an attempt to achieve something approaching that normal placement of the foot. The

original shoe prints of a horse with this conformation will be similar to those of Charlie Chaplin, with the centre of the toe at an angle of perhaps 30° to the animal's spine. We should aim to place the ground surface of the shoe, if not the foot itself, in as close alignment with the direction of the spine as possible. The toe of the shoe should be squared and will form a moderate extension towards the inside, but will not extend to the outer toe of the foot itself. Although there may appear to be an increased danger of damage from this medial extension shoe, the change in foot flight due to the alteration in the breakover point should now prevent any interference. The outside branch is left a little long and fitted slightly inside the wall at the toe but slightly wide and long at the heel. The extension makes the inside branch slightly wide at the toe, but this branch is fitted very close at the quarter and at the heel. The resulting standing shoe print should now more nearly agree with the direction of the animal's spine [24]. A bandage covering the site of the interference should reveal no brush marks after exercise following this shoeing, and if so it can be dispensed with.

A cautious attempt at this solution might be tried in front with a badly toeing-out horse that interferes excessively with the opposing sesamoid area. These horses should normally wear boots. One advantage in attempting this plan is that, even should it prove ineffective, no radical change has been made to the foot.

Interference caused to the hind limb by the front feet is often much more of a problem and can seriously disrupt a horse's career. Most of these injuries are in some way scalping types of wound, usually in horses whose front feet tend to turn in, and they can occur from the hairline right up the pastern and even in some cases the fetlock. In many cases protection is ineffective due to the angle of the blow. To reduce the solution of the problem to its simplest, we need to encourage the front foot to break over as

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quickly as possible whilst minutely retarding the flight of the hind foot, in order to reduce the chances of their paths coinciding. The front feet should be well balanced and as short as is practicable and the toes should be squared or rolled. The hind feet can be left a little long with the angle slightly lowered, and the hind shoes can be a little heavier than normal. An outside trailer, perhaps with a calk, can be added if necessary, although cutting two or three grooves across the shoe behind the last nail may tend to grab hold of the ground just long enough to make a difference. Apparently Curtis and Sons, the Newmarket farriers, refer to this particular shoe as the 'Billygripper'! [25] Trailers are not recommended for horses that regularly use transport as they may catch under the partition, although a long travelling boot should prevent this. There is also the danger of the trailer becoming caught in the head collar when the horse is scratching his head in the stable with disastrous consequences, and the head collar should always be removed when the horse is loose in his box or turned out.

The Billygripper hind shoes are effective in curing those animals that can be heard to clatter their front and hind feet together, known as forging, when they are cantering. Even if they are not damaging themselves, these horses do tend to be paying attention to the noise rather than to what they should be doing.

Horses that hit high up, inside the hock, are

fortunately uncommon. This is very difficult to resolve, partly because it is not clear exactly how the damage is inflicted, and obviously because protection is very difficult in this area. With a bad case even the option of stick-on patches can be unsatisfactory, and when riding the horse at speed it will be obvious that he is severely compromised. If the outside edge of his front shoes is felt to be causing the damage then it should be well rounded off right back to a pencilled heel and we should attempt to slow the hind feet down by the means described above. The rider must be strictly instructed to keep him balanced at all times, as these horses will often move well until they do touch themselves, after which they will naturally try desperately to save themselves by constantly changing leads. If the horse is inclined to turn his feet out behind he should be shod as recommended above. Pleasure Beach, our worst case was, apparently, subsequently cured by a trotting farrier in Macau who left him barefoot behind. This would imply that it was, for that horse at least, purely a hind limb problem, and this theory is worth consideration. The medial extension shoe might well have resolved this case had it been tried.

Possibly one reason for the widely differing theories on curing any interference in gallopers is that gait peculiarities cannot be nearly so well observed from directly behind as they can in a harness racer. The fact that the directly opposite solution to one originally recommended is sometimes successful in resolving interference problems may be due to the difference, commonly accepted in harness racers, between line-gaited and passing-gaited horses. It is often apparent, when directly following another galloping horse, that the flight of his feet is extremely odd, to the extent that he may give the impression of trying to flick his front foot off his leg altogether.

It is worth considering whether many interference problems, particularly any which prove difficult to resolve, might involve some



slight co-ordination problem which in turn may be symptomatic of a systemic disease such as EPM or Lyme disease. Certainly, should a high percentage of horses from any particular source seem to suffer interfering tendencies, or even to tend to be particularly clumsy or stumbling types, that source should be regarded with extreme suspicion. This question may arise in many more aspects of training than is generally supposed, and it should always be considered as a factor in any difficult to resolve situation concerning the training programme. It is impossible to achieve maximum results working with damaged material, and both we and our vet should remember that not knowing what is amiss is by no means the same as nothing being amiss. EPM is certainly far from being the only systemic disease compromising the equine population, although disastrous racing results have normally been attributed to 'The Virus'. In his lecture *Horsemastership*, published in 1911, Derby-winning trainer Col. F. MacCabe refers to tick-borne Relapsing Fever and its serious effects on both humans and animals. This disease is very similar to Lyme disease.

This line of thought reinforces previous warnings concerning both homebreeding programmes and vendors who have proved unlucky for us. Obviously there is no reason to suppose that any stud is immune to athlete-compromising disease. However, in a high stakes business, we must shun any sources that provide even circumstantial evidence of increased risk, based on our previous experience of their stock. This type of unscientific observation may nowadays be dismissed as unsatisfactory, however bitter experience teaches that we ignore it at our peril! It is widely accepted, for instance, that many farms have had land on which particular stock would never thrive, fields that were eventually proved to harbour poisons of vegetable or mineral nature. There is no reason to suppose that unsuccessful or disappointing horse-rearing establishments should be immune to

similar problems, possibly originally of some parasitic nature. Occasional success stories do not necessarily give any farm a clean bill of health if they regularly produce disappointing stock. The norm of any farm's achievements should be the basis for judging the likely future performance of its graduates. In *The Twentieth Century Book of the Horse*, published in 1905, Sidney Galvayne states (pages 227-8): "Stringhalt is a nervous disease... It is very common in some parts of Australia and South Africa... In Australia I have frequently heard some such remark as the following, 'I shall not put my horse in this or that paddock, or it will be sure to get stringhalt'." Careful observation might make us too suspect that unusual patterns are to be observed in the former inmates of various properties.

Feeding

"Give me neither poverty nor riches, feed me with food convenient for me." Proverbs 30:8

The nutritional requirements of the racehorse are the subject of an enormous amount of literature; how much of it is great literature is open to question. Unfortunately, very little relevant work exists on the nutrition of the racehorse under combat conditions, certainly nothing that vaguely justifies many of the claims and counterclaims made by the feed industry. A stable winning important stakes with horses fed on 'Product X' is almost certainly performing moderately overall, considering the capital cost of its equine raw material. If there truly were an elixir of life all advertising would become obsolete due to the vastly superior results obtained by its users. This has not yet happened. The truth is that the horse is a remarkably adaptable animal, up to a point, and in nature he successfully inhabits many different climatic regions with correspondingly differing vegetation. This presumably accounts for the fact that racehorses appear to thrive on a wide variety of nutritional programmes; there

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certainly does not seem to be any great evidence to show that normal common sense cannot get good results. The considerable expense of some of the more exotic additives should rule them out immediately, particularly when their manufacturers seem very coy on the subject of cost-effectiveness. In the real world, more expensive fuel is only adopted following research that demonstrates superior power or stamina!

We should confine our feeding programme to a fairly basic and traditional one and we should not propose to make any dramatic changes until some serious work is produced involving the study of horses in training and currently racing.

The only thing published that does spring to mind is the 1950s survey of, if memory serves, the Windfields Farm racing division which appeared to indicate that those horses raced more productively when fed 2,000 iu vitamin E daily. As we have had some success in getting horses through long and arduous campaigns on this regime we accept its value. Almost all of the other material is smoke and mirrors, possibly on a par with shampoo advertising on television.

The one thing horses do appreciate is routine, and the feeding schedule should be as regular as possible. Feed times should also be spaced, although whether to the degree sometimes advocated is questionable based on the results achieved by some of the more extreme 'little and often' enthusiasts.

Another indisputable fact is that whatever feed is selected there must be no compromise on quality control. All suppliers must deliver consistently high-grade forage. If we do hope to obtain this service we must in return be meticulous in settling their accounts on time. We aim to form an association with the feed man which should guarantee that if top-class material is ever in short supply, then we are at the front of the queue. In fact this philosophy has traditionally found little favour in Newmarket, Mr Wilde's observation that "It is only by not paying one's bills that one can hope

to live in the memory of the commercial classes" being widely accepted amongst the local racing fraternity.

Racehorses in hard work may not require, indeed they normally will not eat, the amounts that are often quoted by many sources, including head lads, feeders and trainers. The traditional measure used to be a stone of short food and a stone of long - 14lbs of grain and 14lbs of hay - daily. For many young racehorses these targets are still too high yet we often hear of animals apparently avidly consuming 20 and more pounds of grain per day. The occasional glutton that might devour these amounts would certainly have his enthusiasm at the manger dramatically reduced were he put into an appropriate training regime. Any trainer who has been told that all his horses are eating 20lbs of oats per day, and whose corn bills seem to support that figure, is almost certainly being robbed. Feeders as a whole give rather optimistic reports of their charges' consumption, and it is important to define accurately what measures are being quoted.

As we are using a traditional approach we will aim to achieve the traditional consumption for the older horses although from experience we may be disappointed by the intake of most of the two-year-olds once their workload increases. The older males will often eat quite large amounts, at least until they have a hard race or two, when they realise that this life is no longer quite so easy and that they aren't really very hungry! The basic ration we use is very lightly bruised Scots or Canadian clipped oats plus about 10% racehorse cubes and 10% proprietary sweet feed. Oats should weigh as heavy as possible in order to reduce the bulk to be consumed. Oats like hay should always appear clean and bright in colour, and should smell sweet. The 'naked oats' now widely available weigh very heavy, due to their having no husk, but are inclined to make the droppings very soft. Several manufacturer's produce a balancer supplement with a protein

Care Of The Racehorse



Manor Farm Boy wins the Gosforth Park Cup under a welter burden as a 4-year-old; he won seven races at two and was a smart winner at three. We got him by swapping for another horse after he was unsold (for £1,000) as a yearling. Tony Ives up. (Photo courtesy of Kenneth Bright)

content of almost 20% as opposed to that of regular oats at around 10% or 12%, and this can be usefully employed for delicate animals. Australian oats tend to be rather sharp and hard, so can aggravate any minor cuts a horse might have inside his cheeks. A small amount of corn oil is added to the night feed, as well as a simple vitamin supplement which should deliver 2000 iu of vitamin E daily. Salt is supplied in a block but is also added to the ration in an attempt to ensure adequate water intake. Electrolytes are added to the ration during hot weather, and are given regularly to free-sweating horses. This feed is used every

day, with no mash or cooked feed days. Should the droppings of any horse appear to be very dry and firm the proportion of cubes may be increased for a day or two. The sweet feed is included to give the vitamin powder something to stick to, as many horses tend to sort out any additives and leave them in the manger.

The main thing to remember about feeding racehorses is to feed them so that they normally manage to eat up their allowance. If any horse does leave unaccustomedly he may well be off-colour and his temperature and general appearance should be checked, although if he goes straight to his breakfast he

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is probably fine. The art of the feeder, of course, is in judging just what a horse will eat and keeping his total daily feed a double handful, or about one pound, below that limit. Attempts to overfeed may result in horses leaving so frequently that no one knows whether they are well or not.

The ration is fed in the following proportions: 5 am: oats, 3lbs; 12 noon: oats, 3lbs; 6.30 pm: oats, 5lbs; racehorse cubes, 1.5lbs; sweet feed (as carrier for supplement powder) 1.5 lbs; oil, 1/3 cup; supplement and salt. This is for a horse that eats fairly well, and adjustments can be made as necessary over the three feeds, in fact many animals that are poor daytime feeders do eat quite well at night. Many horses ignore their breakfast until after they have been exercised, but will go straight to it when they come in; in most cases the midday feed will have to be reduced for those animals that have not by then finished their breakfast.

Once the horses are in strong work and their hard food ration has increased the hay allowance is reduced and the hay itself is changed from timothy to a strong alfalfa or clover and timothy mix, which must be of top quality. The protein content of the alfalfa is considerably higher than that of the timothy. The hay should obviously smell fresh and sweet, the leaf and flower should be intact, and the colour should always be bright rather than dull. As the work intensifies, the hay intake seems to drop naturally as evidenced by what is left in the shavings bedding, and the

ration is reduced as indicated. Although it is not so readily apparent amongst horses bedded on straw, animals in hard training may tend to eat surprisingly little hay, and obviously hay that is dragged through their bed does not count as intake. The two-year-olds not yet in full work can easily tend towards fat if allowed too much alfalfa, and this situation must be closely monitored. All horses appreciate greenmeat during the spring and summer. If a daily supplier of fresh cut lucerne or alfalfa can be found, the hay ration can be reduced, if necessary, for as long as this benefit lasts.

Water

"Thirsty and you gave me drink." St. Matthew 25:35

The amount of water consumed is thought to be important and fresh clean water should be always available. However, despite being fed salt, Manor Farm Boy rarely drank three or four gallons of water in 24 hours, yet was near the top of his generation through long campaigns at two, three and four years. This may be another area deserving of more research. There might be some sense in those horses that tend not to drink whilst away from home always having their water lightly flavoured with something innocuous, in order that they be less aware of changes in the taste of the water at the racecourse. Care should obviously be taken that any such additive does not fall foul of any medication rules!