

HOW TO KEEP YOUR 2YO RACING

One of the most admired and respected Associate Professors in the world lives in NSW. And his area of expertise is racehorse exercise physiology.

His name is David Evans and in June he flew to Japan at the JRA's request to talk about some profoundly important things: emphasising exercise physiology for the young Japanese racehorse (prevention of shin soreness being one of the topics) as the cornerstone.

In August he flew to Brazil to do likewise – a sort of lone ranger letting the world know that the instance of shin soreness as a massive tool for juvenile racing wastage can be stymied by a “modification in training techniques and early preventative treatment of ice and products that withdraw heat from the legs.”

He has cited a NSW company, Kelato Animal Health, as one that can help in relieving problems associated with soreness.

He is in NO WAY a paid representative of Kelato – he simply has a talk on shin soreness, among other topics, and Kelato has a product named SwellDOWN which draws heat from the legs and has a salicylate compound which aids in reducing pain. Which is pretty much all owners want.

The Japanese are anxious to hear his often left-of-centre thoughts on exercise and preventatives that help keep a young horse sound, active and racing.

Professor Evans recently oversaw a comprehensive study conducted by Dr Naomi Cogger into the reasons and cures for shin soreness.

This was funded by the Australian Rural Industries Research and Development Corporation (RIRDC) and the study was alarming in its findings.

The RIRDC-funded project found less than 50% of 2YO racehorses in training,

raced during their first year.

There are about 22,000 foals born each year and about 17,500 are prepared to race as juveniles. That means that of that number only 8,750 will stand up to a sufficiently rigorous training program to get to the track as a 2YO.

“And while that is disappointing, a lot of it can be prevented,” claimed Evans. “We have research evidence to suggest modification of training practices when combined with early prevention of injury to the cannon bones can lower the risk of shin soreness.”

The study also found that shin soreness affected 43% of all 2YO's in training and was the cause of 27% of all lost training days and 23% of weeks at pasture.

This study has prompted various racing bodies throughout the world to be proactive and a study is underway to find ways of changing these stats through different training and the application of such products as SwellDOWN, along with ice packs, as ways to stifle the onset of juvenile wastage.

“Thoroughbred wastage of young horses in training in particular must be addressed,” claimed the Professor. “There is no evidence to suggest if we cut down on racing 2YOs that we would cut out shin soreness.

“It would just prolong it to their 3YO days so we need to restructure how we train these young horses and, just as importantly, how we treat them when and if heat starts to show up.

“Naturally we can't stop shin soreness altogether, but we need to look at controlling it because it is a big welfare issue and an even bigger problem for owners through lost bills.”

To fully understand shin soreness you need to look at what it does to the horse and how it occurs.

Shin-soreness is part of a group of conditions caused by non-adaptive exercise induced bone remodeling.

It is caused by the cannon bone's inability to adapt effectively to the stresses placed on its dorsal surface as the speed and distance of training increase.

That just means all the concussion these young, inexperienced bones undertake on hard turf surfaces leaves them tender and eventually, if not treated, this tenderness causes pain. Once heat gets into the bone it MUST be drawn out.

All bone is constantly undergoing metabolic changes; being reabsorbed and laid down in response to the varying stresses associated with training and racing.

The faster young horses run during training, the greater the concussion on the front of the cannon bones, leading to haemorrhage below the periosteum (the tough fibrous layer of tissue which overlies the bone) and often micro fractures, laying down of new bone on the dorsal surface and, in more severe cases, stress fractures.

Signs of shin-soreness include heat over the front of the cannon bones and pain on palpation. These signs are usually adequate to identify the problem, but radiography or scintigraphy (bone-scanning) may be required to definitively diagnose stress fractures.

There are many different factors which may contribute to the development of shin-soreness. Bigger, heavier horses can be more prone to the condition, as the forelimbs are carrying relatively more weight.

The surfaces on which horses are trained are a major factor. Hard and/or uneven tracks contribute significantly to the problem too.

Those new cushion tracks and wood-



fibre surfaces seem to be the surfaces that cause the least amount of shin deterioration in young horses.

Horses with poorer conformation may be more likely to develop shin-soreness along with a number of other orthopaedic problems.

Treatment and management of shin-soreness varies from horse to horse. It is important that horses are examined thoroughly to rule out other causes of poor performance and lameness, which often affect younger horses (eg foot, fetlock and knee problems).

Early cases may be successfully treated with topical and systemic non-steroidal anti-inflammatory drugs, such as phenylbutazone, and the application of ice or cold poultices. If you can cool your clay poultices, that is very effective also.

There is growing evidence that shin-

soreness can be minimised by reducing the distance that young horses work as the speed of that work increases.

Also, products that target drawing the heat from the effected area applied after every really fast bit of work has a positive and preventative effect.

“These approaches allow the bone at the front of the cannon to better adapt to the stresses of higher speeds without causing distress and associated inflammation and pain,” claimed Professor Evans. “But again I stress, physical therapy (ice packs, products that draw out the heat) work best when applied after modified training practices.”

Those approaches allow the development of cardiovascular and muscular fitness without loading painful limbs. And in turn may help in cutting down on time spent in the paddock.

Most trainers, when heat appears in the shin, just send their babies out for up to 12 weeks spell.

Many other treatments have been used over the years, including pin-firing (now banned in Australian racing), application of blisters, local injection of corticosteroids and systemic injection of growth hormone.

But reduced duration at top speed, swimming to keep fit when the pain arises, and cold clay poultices when combined have shown they aid significantly in the control of shin soreness in the juvenile racehorse.