TWO YEAR OLD RACING

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The welfare aspects of racing of 2 year old horses has become an issue for the AEVA as a result of Senate Select Committee inquiry into the welfare aspects of racing, and discussion on the topic at the 1989 Annual General meeting. The following information is provided for consideration.

There are two aspects to be considered. Is the level of exercise-induced injury in immature horses unacceptable and does racing at two years of age reduce the useful racing life of a horse? The first question is of prime concern to equine practitioners but the second is also of importance. Is breed improvement retarded because premature retirement of some horses might prevent these from displaying their ability and thus devalue them as breeding stock? Economic losses associated with injuries in young horses and the premature retirement of some of these horses are matters of interest primarily to owners and trainers, but prevention should be the concern of the equine practitioner.

Reliable information on the incidence of injuries in 2 year olds suggests that it is only shin soreness that is a particular problem. Although shin soreness is seen in 3 year olds or even 4 year olds when these horses are placed in work, usually for the first time, a much larger percentage of 2 year olds develop this condition. A Victorian survey involving 14 trainers and 10 equine practitioners conducted by Buckingham and Jeffcott (1990) suggested that up to 80% of 2 year olds develop the condition. Many respondents had ceased to regard it as a problem, but rather as an integral part of the racing industry. Mason and Bourke (1973) found that 40% of 2 year olds in training in Melbourne developed skin soreness.

Carpitis, a term used to embrace all the common diseases of the carpus, was seen in more than 15% of 2 year olds in this study and splints developed in about the same percentage. Sesamoiditis was a feature in some 4% of the 2 year olds. Bourke (1990) reported on 122 horses (29 colts, 42 geldings, 51 fillies) which first raced at 3 years of age in the 1989/90 season. Fifty-six of 85 horses developed sore shins when placed in training as 2 year olds. The remaining 29 horses were either found to have limited ability or developed other problems, (often carpitis) which delayed their race track debuts. The above observations reinforce the long-held view that exercise-induced problems of immature horses are mainly skeletal in origin. Soft tissue injuries are less common but are the main cause of wastage in older horses which tend to be subjected to more rigorous racing and training schedules.

While sore shins and carpitis can result in significant loss of training time and opportunities to race, the majority of horses affected return to racing after rest in the case of shin soreness, and rest and/or surgery in the case of carpitis. The significance of conformation in the high incidence of carpitis reported by Mason and Bourke (1973) should not be overlooked as a contributing factor.

Whether or not 2 year old racing should be endorsed because of the seemingly inevitable high incidence of sore shins is a matter of debate. It could be that modified training methods with less fast work and perhaps fewer races could reduce the incidence. It is unlikely, however, that the condition could be eliminated.

Two year old racing is an integral part of the Australian racing industry. The high costs of bloodstock and training make it important for most individual owners to seek an early return for what is often a significant investment.

In recent years about 70% of horses raced first at 2 years of age although the report of Bourke (1990) suggests that more horses are placed in training at this age but develop problems which prevent them from racing until 3 years of age.

In Victoria, 9327 horses raced in 1987/88 and of these 1537 (16.4%) were 2 year olds. Some idea of the growth of the industry in this state can be gained by consideration of comparable figures for the 1977/78. In that year 6696 horses raced and 1257 (18.8%) were 2 year olds. In that year 53.2% of two year olds that raced earned no prize money. This suggests that the high attrition rate in young horses is due at least in part to failure to perform profitably as 20% of 2 year old and 3 year old fillies do not race at three and four respectively while the figure for male horses is 10%. How much of this failure to perform can be attributed to the development of some ailment is another matter, but lack of ability must assume some significance.

A number of studies in recent years (Bourke 1978; 1989; 1990) have demonstrated that racing a horse first at 2 years of age does not tend to shorten a horse's racing life. The racing histories of 269 yearlings sold at Melbourne Yearling Sales in 1968 and 397 yearlings sold in 1978 were studied. These studies revealed significant wastage even before these horses were eligible to race. Some 10% of named 2 year olds did not race. How much of this wastage was put to exercise-induced injury could not be determined. As far as length of racing lives was concerned, those horses that raced first at 2 year old in fact raced for at least as long, and had at least as many races as horses that raced first at 3 years of age. On average, male horses raced for 3.5 seasons and had 30 to

40 lifetime starts, and female horses raced for 2.5 seasons and had 20 to 30 lifetime starts. Two year olds that had raced by the end of December had racing lives of equal length to those that raced first after the end of December. These studies all demonstrated that age at first start was of little significance.

Attempts have been made to assess the suitability of immature horses for racing by radiographic examination of certain features of the horse's skeleton. It has been suggested that skeletal development should reach a certain stage before a horse would be able to withstand the rigours of training and racing. The high incidence of skeletal abnormalities in young horses tends to support this proposition. Results obtained have been equivocal and the situation is still confused. Montfort (1967) observed radiographic closure of the distal epiphysis of the third metacarpal bone. He recorded a higher incidence of lameness and poor performance records in horses that closed this epiphysis either early, (7 months) or late (12 months). Banks et al (1969) gained the impression that there was a reduced incidence of lameness if horses were withheld from training until the epiphysis of the tuber calcis was closed. Other workers (Thom, 1970; Reed, 1965) have used the distal radial epiphysis as an indicator of maturity but a critical evaluation of the practice has not been recorded. Mason and Bourke (1973) also studied the closure of the distal radial epiphysis as an indication of the readiness of horses for training and racing. There was a significantly higher incidence of carpitis in horses in training with open epiphyses and possibly some correlation with the incidence of shin soreness. Even so at the end of their first racing season 45% of the horses that commenced racing with closed epiphyseal plates had become unsound compared with 23% of those horses in which the epiphyseal plates were open. Numbers in this study, however, were small and it would be dangerous to draw any conclusions.

Gabel et al (1977) found no definite correlation between closure of the distal radial epiphysis and the incidence of injury in 113 two year old standardbreds although they suggested that there was a weak indication that very immature horses may have a slightly higher incidence of injury.

The economics of the present day thoroughbred industry in Australia and other countries are such that there is emphasis on the breeding of early maturing animals. They are often reared on a higher than necessary plane of nutrition to appeal to yearling buyers. Horses are expensive to produce, buy and train and owners understandably seek early return. The high incidence of problems, particularly shin soreness in 2 year olds is a challenge to the veterinary profession to devise methods of reducing the incidence of problems. Obviously immature animals should be held back as should horses with glaring faults in conformation, and closer attention should be paid to the development of modified training and racing schedules for young horses. The nature of the most desirable galloping surfaces, particularly for training, is also worthy of consideration and further study.

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