



## - FOAL GROWTH RESEARCH -

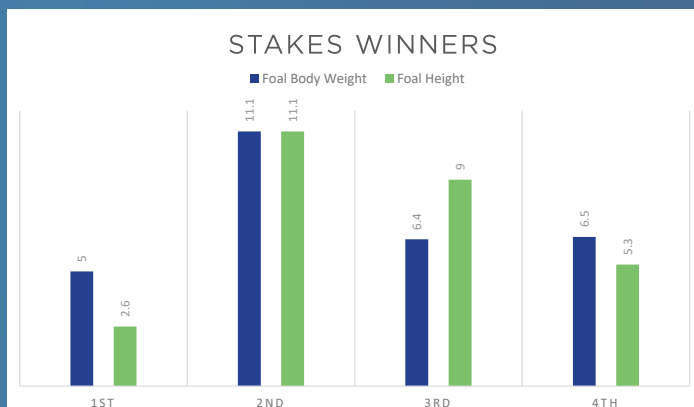
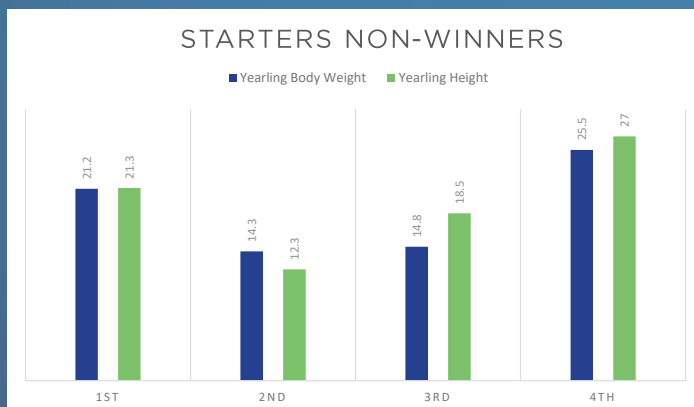
### Links between Foal size, OCD risk, Sales results and Racing Performance

A Kentucky Equine Research study that links foal growth measurements and radiographic findings to sales and racing performance has come up with some very intriguing findings in the pilot phase as well as confirming some common knowledge. The previous article looked at the methods of the study and the relationship between growth and survey x-ray findings and found that size made a big difference to the risk of OCD.

“When we looked at sales and racing performance, we found that again, size made a big difference,” said Dr Joe Pagan the study director. “At yearling sales in Kentucky, the size of the yearling is a very important parameter for sale price, both body weight and the height of the yearling. So much so that the median price paid for horses in the top 25% of body weight as yearlings was five times greater than in the bottom quartile. So there was a massive difference there.” The same trend occurred with height, although in the Australian market very tall yearlings can be ‘marked down’ by the buyers. These findings agree with previous KER studies on sales in Kentucky in the early 2000’s.

#### How size affects racing performance

“When we drilled down to how that size affected their racing performance, it didn’t really match the sales data. We actually found that sort of middle of the road for size, the second quartile particularly, seemed to produce the best racehorse. Significantly more taller and heavier yearlings tended to start as 3yo rather than 2yo. Second quartile foals and yearlings had more winners and stakes winners. Foals and yearlings in the 4th quartile for weight and height were more likely to be non-winners, along with tiny (short) foals (Figure 1). When it came to black type the highest percentage of stakes winners were in the 2nd quartile for weight and height as foals and yearlings and no group race winners came from 1st quartile foals or yearlings.” Pagan summarised.



#### Effect lesions had on sale price

“Somewhat surprisingly, when we looked at the racing and the sales performance of horses that had evidence of OCD in their survey radiographs, we found that hock and fetlock lesions, which are two common sites for these problems to occur, didn’t really have an adverse effect on the sale price of the yearlings that were offered for sale,” Pagan continued, adding this caveat, “But that doesn’t say anything about whether foals ended up not going to sales because they had those problems. We couldn’t address that question from the information that we had.

“But of the foals that were presented at sales that had the hock and fetlock OCD in their surveys; they weren’t knocked in terms of sale price and sold above the session median,” Pagan said. “Stifle lesions seemed to be a different matter. Horses that developed stifle lesions, they did seem to sell for a lower price, so that was problematic”.



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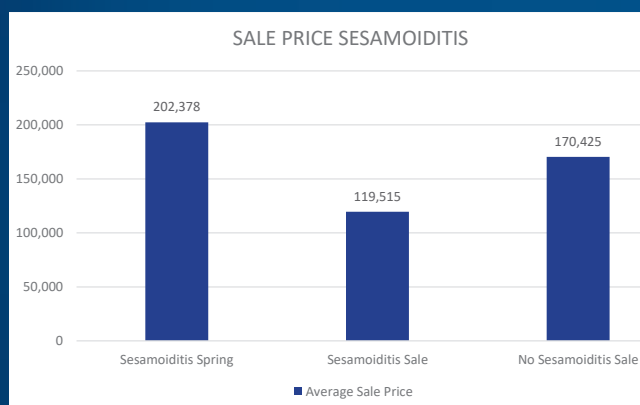
# Links between Foal size, OCD risk, Sales results and Racing Performance

## Effect OCD had on racing performance

“When we looked at racing performance, horses that had hock and fetlock OCD did not have reduced racing performance, except that foals that had hock OCD in their survey radiographs made their first starts at a significantly older age than those that didn’t,” Pagan said. “Many of these horses would have had surgery before or after the sales. More of these yearlings raced, won races and won black type or group races than the weanlings without OCD in survey radiographs. Stifle OCD cases were a different story again as they could win races but not black type races.”

## OCD & Racing Performance (% foals)

AS FOALS	NO OCD	ALL OCD	HOCK OCD	FETLOCK OCD	STIFLE OCD
UNRACED	30.3%	23.5%	23.8%	14.3%	27.8%
STARTERS	69.7%	76.5%	76.2%	85.7%	72.2%
WINNERS	50.9%	58.8%	61.9%	64.3%	50%
STAKES WINNERS	5.9%	5.9%	9.5%	7.1%	0%
GRADED STAKES WINNERS	3.7%	5.9%	9.5%	7.1%	0%



## Sesamoiditis

Yearlings with sesamoiditis sold for only 70% of the session average, and if the sesamoiditis persisted from survey x-rays to sale x-rays to was more likely to be withdrawn or passed in (Fig 4). Unexpectedly, sesamoiditis didn’t delay the age at first start or the odds of racing and winning races, but they were less likely to win stakes races.

## More research depth needed

Even though he is pleased with the data the pilot study generated, Pagan said the research needs better depth, both in terms of the number of participants, and geographic diversity.

“We’re calling it a pilot study because it had over 300 foals,” Pagan said. “But in the grand scheme of things, that’s still a fairly small population. We need bigger numbers to add more statistical significance to the findings. We’re taking this pilot study and we’re ramping it up now. We’re asking more farms to participate, and there’s been great enthusiasm worldwide amongst breeders who want to participate.”

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