

## **Sustainable Model of a Performing Barefoot Horse Facility**

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The debate of horse shoeing versus barefoot trimming has been an on-going debate amongst the horse industry for several years. Horses have been domesticated for over six thousand years, partnering with man in work, travel, war and sport. The practice of shoeing horses appears in written records around 900 A.D and continued into the Middle Ages, when horses were housed in castles on damp surfaces compared to being outside on corrals. The equine industry perceives that barefoot horses cannot perform at the same level as shod horses. For this reason, they are willing to accept the application of shoes that impede the normal function of the hoof by interfering with natural circulation, peripheral loading, heel contraction and unbalanced digital axis. The purpose of this research is to show that barefoot horses can perform at the same level, if not better, than shod horses, by providing a successful barefoot husbandry and business model that is acceptable by the equine industry. The study compares two groups of horses selected with the same criteria, 35 barefoot and 35 shod, of different ages, breed and sex that have been kept in work for a period of 4 months. The horses were housed in different facilities, but with similar industry standards: Type of food, working surface, hours of turnout and housed in individual box stalls size  $13 \text{ m}^2 \pm 2 \text{ m}^2$ . Days of loss of work due to lameness, lost or loose shoes were recorded and evaluated. Statistically, significant analysis (Z Test  $P < 0.05$ ) showed that the mean of days out of work for the barefoot horses was 0.5 while for the shod horses was 1.5. This not only indicates that a barefoot horse does not lose more days of work than a shod horse, but also suggests that the contrary may be occurring – the shod horse is out of work more time than the barefoot horse. Furthermore, we compiled the costs of 20 hoof practitioners and determined that the barefoot horse is less expensive to keep than a shod horse. A full barefoot trimming is on average one third the cost of a fully shod horse, and the barefoot horse is trimmed less frequently than a shod horse is shod. The data collected in this research proves that barefoot husbandry can be a successful business model adoptable by facilities in today's equine industry. The purpose of this research is to facilitate the acceptance from the equine industry of those researches that considers barefoot riding a better option from a welfare point of view towards a more sustainable way of riding horses.

**LP:** It is more economical to keep a working barn of barefoot horses than shod horses. Shod horses lose more days of work due to shoeing related complication compared to the days barefoot horses lose due to hoof damaging issues. Furthermore, shod horses have higher farrier expenses making it less economical.