The Effects of COVID-19 on Equine Welfare and the Equine Industry in 2020

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1. Introduction

COVID-19 is a zoonotic infection. Research uncovered that the bat coronavirus (RaTG13) could not bind with receptors in humans or pangolins, but the pangolin coronavirus was able to bind to pangolin and human receptors. Though this research may suggest that the pangolin virus is involved in the transmission of coronavirus in humans, currently there is no confirmation as to whether the pangolin virus was a part of SARS-CoV-2's evolution to humans.1 Equine coronavirus is transmitted between horses through fecal-oral route when an unaffected horse ingests infected manure or has oral contact with a contaminated horse. Symptoms may include anorexia, fever, lethargy, colic, and diarrhea. Diagnosis is achieved for enteric coronavirus by testing fecal samples, and treatment includes supportive care such as fluid therapy and anti-inflammatories. Though frequency of this disease is low in horses, biosecurity remains the most preventative modality for denying a horse transmission of the coronavirus.2 As of spring 2021, 3 million people have died of COVID-19 worldwide during the pandemic of 2020. The havoc that COVID-19 wreaked on our professional communities will have an impact on the livestock and horse industries for years to come. The challenges in the equine industry caused by COVID-19 are mirrored with similar problems in the swine and poultry production business. During the spring and summer seasons of 2020, the swine and poultry industries faced challenges with labor and resource availability, especially since both sectors have an overseas market. Though contingency plans were in place prior to the declared COVID-19 pandemic to manage both poultry and swine farms during a crisis period, and despite industry efforts to mitigate risks for human safety and health, animal health and welfare, and supply chain continuity, many challenges and extreme circumstances simply overwhelmed the contingency plans that were established. Labor shortages, lack of feed, closed slaughter facilities, and no income for the producer led to devastating outcomes and production shortages both immediately and in the long term. Attempts to slow poultry and swine growth by feeding them a limited-calorie diet, thereby providing more time to get the animal from farm to slaughter, was a short-term solution to a long-term problem. Ultimately, depopulation became necessary, with 2 million poultry euthanized in the Delmarva (Maryland and Delaware) region in April 2020. Swine and poultry slaughter facilities were closed due to workers infected with COVID-19 and a personal distance of 6 feet between employees. Pigs intended for human consumption were intentionally rationed food and water to slow growth until slaughter facilities reopened. This tactic increased aggressive behavior among housed pigs and compromised the welfare of each animal, ultimately resulting in depopulation. Though horses in the United States are not typically intended for...
human consumption as are livestock, similar to the meat industry, feeding, housing, physical labor, and the intended-use market were negatively affected by COVID-19.

2. Thoroughbred Racehorses

According to Dr. Scott Palmer, NY State Gaming Commission Equine Medical Director, after analyzing data on Thoroughbred fatalities from 2020, he determined that the COVID-19 pandemic could be considered a novel risk factor for fatal Thoroughbred injuries last year. Overall, there were 24% fewer fatalities per 1,000 starts in the region in 2020 as compared to 2019, but some shifts in the types of fatalities occurred. The number and percentage of overall fatalities that occurred during racing versus training decreased, which was to be expected since the pandemic resulted in fewer race cards in 2020 versus 2019. However, a change in the proportion of fatalities occurred in training, especially in juvenile runners, where there was a very unusually high number of fatalities in 2-year-old racehorses, especially at Saratoga Racetrack in 2020. It is assumed that when racing was cancelled and with uncertainty as to resumed race dates, more trainers maintained their horses at the resident farm rather than on the race-track where daily fees to maintain a racehorse are incurred. Consequently, some 2-year-olds did not post their first official timed works until June, much closer to their racing debuts than usual. Out of the 18 2-year-old fatalities in 2020, 8 occurred in horses that had never raced. It is suggested that some 2-year-old racehorses were denied the usual time frame of training that permits the bone remodeling process, which is crucial to preparing the skeleton for the rigors of racing. Bone remodeling after track training and added workload is critical to preventing catastrophic racing injuries. Due to limited racing during 2020, many horses ran fewer times overall during a normal race calendar, and their skeletons were unable to respond to intense exercise before the next race. Out-of-competition test samples are administered by two regulatory staff that collect samples for drug testing in horses. Due to the restrictions of distance and physical contact between two people, many out-of-competition test samples were not obtained. It is theorized that some trainers may have used more medication out of competition to maintain the racehorse during training and racing. The racing fatality rate in the Mid-Atlantic for 2020 was 1.39 per 1,000 starts, which has improved with time. As of April 2021, data from the Equine Injury Database had not been published for 2020. COVID-19 is projected to have an effect on Thoroughbred, Standardbred, and Quarter Horse racing for years to come. With the majority of the racetracks closed to the public during the pandemic, most of the spectator stands were empty. Tracks located in states without online wagering, such as Oklahoma, experienced more financial hardship than tracks with online wagering, such as California and Kentucky. Without the benefit of campaigning a racehorse and with the impediment of dwindling race days, the decline of wagering or betting on a track, and overall fewer mares being bred during the pandemic, all have contributed to more financial constraints within the racing industry. Many stakeholders predict a shortage of 2-year-olds for sale in 2023.

3. Equine Rescues

When many people realized that the restrictions of the pandemic such as working remotely could become a more permanent option for their employment, many adopted pets and horses as a complement to their home life and mental well-being. During the spring of 2020, several of the equine rescue facilities were depleted of their rescue horses because of increased adoption rates. Numerous people selected to live off the grid and move to a more rural area where they could participate in hobby farming. This also increased adoption rates in the rescue facilities. Initially in early spring 2020, though adoption rates were up, there was the overall appearance that horse rescues and confiscations due to equine abuse and neglect were decreased in number during the pandemic compared to years previously. With the inability for law enforcement, shelter workers, and humane officers to visit on-site purported horse abuse, fewer horses were confiscated, resulting in skewed data. In later 2020, as unemployment rose and the cost of horse care increased, it was expected that the number of abuse cases will also rise in 2021 as shelter officers and employees return to work. The increase in number of cases of horse abuse may create an overwhelming scenario for rescue facilities and shelters in 2021. Court dates for abuse and neglect cases will be delayed, which will delay adoption and fostering, ultimately increasing the cost for the care and custody of a rescue horse. Many of the donated horses have health issues that preclude them from a career other than as a companion horse, and this poses a greater challenge for suitable adoption. Horses adopted in 2020 may be returned if family finances warrant an adjustment. Equine rescue organizations face difficult decisions as to which horses need rehabilitation and which are euthanized based on financial allocation. In order to maintain equine welfare, some of the assigned changes to rescue facilities include more volunteers rather than paid employees, increased turnout for horses to avoid increased bedding costs, construction of turnout sheds in pastures, feeding more round bales rather than square bales to mitigate labor costs associated with square bales, and pulling shoes to lower farrier costs.

4. Survey

To determine its effect on horse owners and horse welfare specifically, a group of British, Australian, and
U.S. researchers conducted a survey of more than 11,000 owners from late March to early April. Lead researcher and independent scientific consultant David Marlin, PhD, presented their findings at the International Society for Equitation Science’s virtual meeting in August. Dr. Jane Williams, Dr. David Marlin, and Louisa Taylor, MRCVS, veterinary surgeon with equine nutrition specialists Science Supplements, carried out the study on the effects of the COVID-19 pandemic on horses and horse owners. In summary, the study revealed that there is an emotional bond that is developed with a horse and owner that is the same as the bond that other people have with a dog or a cat. The horse is considered a member of the family. Lack of time spent between owner and horse resulted in a negative impact on the owner’s mental health and well-being. The common themes seen across all countries were horse health and welfare and horse owner well-being. The effect on people’s mental well-being is a theme that in general has become more prominent throughout the COVID-19 pandemic. Impact on the horse included lack of funding for board, labor, feed, hay, and bedding. Financial grants and fundraising are needed to manage horses during the pandemic. Key findings of the study indicated that horses housed at home suffered little impact as a result of the pandemic. Horses that were boarded or partially boarded felt a major impact as a result of the pandemic. In the United Kingdom, survey respondents indicated that 66% are still riding their horses, while 45% adjusted their riding habits to include not jumping their horses, not working with young horses, and not breeding for a foal crop. Many of these constraints were implemented because the rider was a financial provider in their family. In North America, 44% to 84% of horse owners are still riding, while 28% to 37% of the riders have adjusted their riding habits, similar to the U.K. owners. Australians expressed no difference in their riding habits despite the pandemic. Owners in the United Kingdom reported the strictest measures being taken by equine establishments, with 41% of the facilities allowing essential visitors only. When asked if pandemic-related restrictions were affecting horse health, up to 60% of U.K. owners, 30% of North American owners, and 33% of Australian owners said yes. Fifteen percent to 22% of respondents said the pandemic had impacted their access to veterinarians and allied services, while 52% to 85% said it had not yet but they anticipated that it would soon. Given the recent drought and bush fires, Australia was more concerned about the future availability of feed. The North American horse owners were concerned about human well-being and economics as well as restricted time with and lack of purpose for the horse. The U.K. owners were more concerned about risks associated with increased stabling such as obesity and laminitis; peer pressure, especially via social media; and the pandemic's ongoing influence on equine welfare.

5. Discussion

Two bills were passed into law that will assist the horse industry. As of May 2020, the unemployment rate was 13.3%.

   i. Benefits small businesses and provides payroll protection. Instrumental in maintaining equine facilities and providing extra financial incentive to assist in caring for the horse.
   ii. American Horse Coalition lobbied for bill passage into law.

b. Great American Outdoors Act (S.3422).
   i. Aimed at getting Americans outside and promoting the health of recreational sports and rides.
   ii. Some of the bill was incorporated into other legislative bills. Encourages equine sports outside to help eliminate COVID-19 stress emotionally and physically.

6. Conclusions

It is imperative that rescues and shelters appeal and vocalize to benefactors, the public, and previous donors for money, supplies, and volunteer assistance for the rescue. Transparency with the public for the need of additional resources is necessary for the survival of the shelters and the welfare of the horses. There are many unknowns, and the future for equine welfare and the equine industry has yet to be determined, but a plan must be in place to survive the continued pandemic. It is important that myths such as “you can catch COVID-19 from your horse” are immediately deconstructed. Fear will limit any contact with the horse at many levels of engagement.

Seek guidance on how to access financial support either by loans, grants, or donations. It is imperative that equestrian charities that are suffering a downturn of income are supported. Further studies on COVID-19 and equine welfare during 2021-2022 are needed to verify anticipated changes in the industry.

Acknowledgments

Declaration of Ethics

The Author has adhered to the Principals of Veterinary Medical Ethics of the AVMA.

Conflict of Interest

The Author has no conflicts of interest.

References and Footnote


*Personal conversation with Julie Broadway, president of the United Horse Coalition, April 1, 2021.*