

HORSE BREEDS AND THEIR USES

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Chapter 1

Introduction

Horses are among the most significant animals in the contemporary society. They signify royalty, affluence, sophistication, strength and raw power. The horse has had significant influences on the lives of people around the world both in the contemporary and the ancient world. According to historical data, the horse has evolved drastically in less than 50 million years (Heuser, 2009). Historians maintain that the horse evolved from a tiny multi-toed creature into the massive and hardy animal known today (Heuser, 2009). Green (2012) gave a succinct description of the horse as an animal that has earned the respect of all men as a glorious beast of burden that reached to royal attention; an animal that has been a reliable companion of mankind in combat, in transit and in leisure. Its natural strength and versatility remains one of the many marvels of nature (Cassidy, 2009). A herd of horses galloping at dusk in their majestic splendor creates a magnificent sight to behold. The bliss of riding on a horseback or in a horse-drawn chariot is one of a kind. A review of the history of mankind and horses, the domestication process, breeds of horses, and the uses of horses is presented herein. The information given within this paper has been obtained through peer-reviewed sources, as well as the observation of horses in their natural habitats.

History: The Domestication Process

According to zoologist, archeologists, and historians, human beings began the process of domesticating horses around the year 4000 BCE (Cassidy, 2009). By 3000 BCE, the domestication of horses had been widespread in Asian and Europe and led to selective breeding

that produced the current breeds of horses (Julien, 2006). Available evidence suggests that the first species of domesticated horses existed in the Eurasian steppes (Kavar, and DovÄ, 2008). Here, horses were used for food as their milk and meat provided a stable source of carbohydrates and proteins. Men then began harnessing the horse's strength in tilling the land and for transportation. Soon, the practice spread across Europe, Asia, and eventually the horse was re-introduced to North America. The horse's journey to legendary status has a humble beginning. During ancient wars, horses would be used to transport mighty armies and carry them to great conquest. The most widely acclaimed historical text on horses was written in Greece around 400 BCE by Xenophon. Numerous other texts followed immediately after Xenophon's work.

Among the available historical texts are those that describe medieval uses of horses as well as medieval inventions. According to these texts, the medieval people used horses extensively for tilling and for hunting game (Julien, 2006). The medieval people pioneered and developed the idea of a horse collar and stirrups (Julien, 2006). The stirrup was invented in order to provide comfort and extra security for the rider while the collar was designed to enable horses pull huge loads with ease. Another indispensable medieval equine innovation is the nailed horseshoe and light weight chariots, which later inspired contemporary steam engines and automobiles. The horseshoe enabled horses to travel for longer distances without fatigue injury to the hoof.

Horses' Lifespan, Life Stages and Body Measurements

Horses vary in lifespan depends on their breed. The size of the horse can also vary as it grows and develops from birth to maturity. The developmental life-stages and lifespan of a horse depends on different factors including, but not limited to, type of breed, management practices, natural calamities, and geographic location (Kavar and Dova, 2008). The different breeds have

been classified based on their body type and measurements. Different geographic regions became known for specific breeds or types of horses: ponies, light horses; or drafts.

On average, the lifespan of the modern horse ranges from 23 to 32 years (Kavar and Dova, 2008). Some breeds and individual horses have been reported to have lived for 40 years and beyond, although these cases are extremely rare. Old Billy is the oldest horse to have ever lived. He was borne and lived in England, and died at the age of 62 (Kummer, 2013). His skull is preserved at the museum of Manchester. It is important to note that horse years are counted by adding one year every January first of every year that the horse lives. This is done regardless of the actual month or day of birth.

After birth, the horse enters into its first stage of development as a foal. This is a young horse (typically less than a year) of any gender (Lau, Peng, Goto, Chemnick, Ryder, and Makova, 2008). After the first year, the foal graduates into the yearling stage. This is a horse of any gender between one and two years. After the second year, the yearling maybe referred to as either a colt or a filly depending on its gender. A colt is a male horse of less than four years but older than two years, while a filly is its female counterpart (Lau, Peng, Goto, Chemnick, Ryder, and Makova, 2008). After the fourth year of growth, the colt or filly is then referred to as a stallion or mare, respectively. These are fully grown horses capable of reproduction. It is important to make the distinction between a stallion and a gelding.

During these different life stages, horses grow into different sizes. On average, a fully grown horse measures 14.2 hands or more (Lippold, Matzke, Reissmann, and Hofreiter, 2011). This is equivalent to 147cm or 58 inches, where 1 hand is equivalent to 4 inches or 10.16 cm. This height refers to the distance between the ground and the withers. The withers is that part of

the horse's body where the neck meets the back. Unlike the head or the neck, the withers are a stable part of the horse's anatomy as it does not move. The head and the neck on the other hand can move up or down relative to the rest of the body. The horse's height varies depending on the breed and also depending on nutrition (Lippold, Matzke, Reissmann, and Hofreiter, 2011). Properly fed thoroughbreds would usually tower to a staggering 16 hands which is equivalent to 163cm or 64 inches. These horses can weigh up to 1000-1200 lbs (453-544 kgs). While draft horse breed which are commonly used for heavy weight duties due to their massive strengths can weigh up to 1800-2000 lbs (816-907 kgs).

Light riding horses and ponies are shorter in stature and lighter in weight (Morin, 2006). The heights of these horses range from 14 to 16 hands which is equivalent to 142cm or 56 inches and 163cm or 64 inches respectively. They can weigh anything between 300 to 600 kilograms depending on management. Ponies are distinguished from horses by height. Normally, ponies are shorter in stature as compared to ordinary horses (Morin, 2006). All animals bred out of ponies are also regarded as ponies even if they grow to become taller than ordinary ponies (Morin, 2006). This same criterion is used for identifying horses. Ponies are also mild and easily tamable compared to horses. The short stature of ponies makes it easy for young horse riders to mount the horse while its docile nature makes it easy for horse whisperers and trainers to train the animal for use with children.

Chapter 2

Breeds of Horses

Horse breeds refer to specific types of horses with unique characteristics that are transferrable to the offspring (Smiley, 2004); such features include performance ability, conformation, disposition, and color. For example, the thoroughbred is the most common and recognizable breed of horse. Its agility and distinctive characteristics make it appropriate for sporting activities like horse racing, steeplechase, jumping, fox hunting, and eventing. There are more than 300 breeds in existence today.

The practice of breeding animals arose from the need to harness different characteristics possessed by different individual animals. Selective breeding of the horse began soon after the domestication of other animals. Historical records imply that the first persons to develop successfully selective breeding were predominantly the desert dwelling Arabian ethnic group called the Bedouin. Archaeological findings and available texts suggest that the Bedouin were obsessed with careful breeding practices. Perhaps their supposed practice of selectively breeding the horses was necessitated by the harsh weather conditions in the deserts. The Bedouins did wide researches and kept extensive pedigrees of their horses. These they exchanged with for other valuable goods like gold, silver and agricultural produce with other traditional desert dwellers and traders.

During the Ottoman era, most Bedouin traditions had changed due to prolonged interactions with other cultures. They had also exported the culture of horse breeding to other

parts of the world, notably Europe. These ancient Arabs were known for their skillful breeding techniques and for valuing immensely pure bloodlines. With their skills, which were mostly passed from generation to generation via word of mouth, the Bedouins were able to develop specific characteristics in horses to perform specific functions. Evidence of the Bedouins breeding traditions in Europe can be seen in the development of other breeds, such as draft horses which were necessitated by the existence of demanding farm work such tilling the land.

Anatomy of a Horse and its Gait

Anatomy is the branch of biology and or zoology that deals with the study of the structure of the body of living organisms. It creates a concise and elaborate understanding of living things thus facilitating the provision of care and monitoring. A clear understanding of the horse's anatomy facilitates proper care and management of the horse.

The anatomy of the horse evolved significantly in only 50 million years. The skeleton of the current species of the horse is composed of 205 bones (Otfinoski, 2010). Unlike humans, horses lack the collar bone. A set of powerful muscles, ligaments and tendons attaches the horse's forelimbs to the spinal column, which also attach the shoulder blade to the torso. There are no muscles present below the knees and hocks of a horse. The horse's hooves are surrounded by cartilage and specialized tissues. The outer covering of the hooves are rich in keratin, the same stuff that constitutes human finger nails. The deposits are, however, intense and tightly packed together to make the hooves tough and able to support the rest of the horse's body. Horse shoes are designed to ease the pressure on the hooves, to minimize injury and to make horses more comfortable.

Horses are adapted to eating vegetation like grasses. Their digestive systems can comfortably handle forage throughout the day due to the presence of a smaller stomach and longer intestines (Simon, 2006). A fully grown horse can eat an average of 10 kilograms of food a day and drink an average of 40 liters of water. It is important to note the fact that horses cannot vomit. Herders and horse owners must, therefore, ensure that the horses are well fed and get regular medical attention to alleviate possible digestive problems. If these digestive problems are not curbed early enough, they can escalate into colic in horses (or abdominal pain). Chronic abdominal pain can be fatal and is a leading cause of death for horses; most of which many times require surgical interventions.

Horses are laterally eyed with binocular as well as monocular visions (Simon, 2006). They also have perfect day and night vision allowing them to have a clear awareness of their surroundings. Horses are, however, partially color blind since research indicates that horses cannot distinguish the colors red and green. The horse's sense of smell is also well advanced but it is not comparable to that of a dog, although it is better than that of humans.

The hearing system of horses is well developed. The pinna of the ears can rotate up to 180 degrees and can facilitate hearing without moving the head. A recent study by Heleski et al (2014) established that different kinds of noises have different impacts on horses. This study conducted in the United Kingdom revealed that horses displayed a lot of calmness while listening to classical music as well as country music. The horses, however, appeared more distressed listening to rock music and jazz. A different study of the same nature in New Zealand found out that the chances of horses developing gastric ulcers were high if they were stabled where they listen to radio on a regular basis (Smartt & Chalmers, 2009). Indeed, the rate of ulceration in horses stabled where they listen to a radio was higher than horses stabled where

they listen to no radio at all. These two studies (Heleski et al., 2014; Smartt & Chalmers, 2009) recommend that horses be stabled in quiet settings to increase the individual performance as well as to facilitate better health for horses.

According to Frandson, Wilke & Fails (2009), a horse can assume four different gaits during movement, namely: walk, trot, canter and gallop. The horse's walk can be described as a four-beat gait where every foot hits the ground at least once before movement occurs. The walk speed of a fully grown horse averages six kilometers per hour. The trot or jog is a two-beat gait. The front right and left hind strike the ground at the same time, followed by the front left and right hind, in a repeating diagonal pattern. The average speed at this stage is 16km/h. Canter or lope is a three-beat gait. The average speed is 22km/h. Here, first the left hind limb hits the ground followed by the left forelimb and the right hind limb hit the ground simultaneously hitting the ground and finally the right forelimb finishes the cycle for a single movement before it starts all over again. Gallop is also a two-beat gait but varies with lope in that the galloping speeds are higher, normally above 40km/h. The fastest short distance sprint record set by a horse was 88km/h.

These characteristic speeds of a horse complement its nature as a prey animal. When faced with a life-threatening situation, the quickest and most immediate response is flight. In case flight is impossible, horses will stand their ground and fight for their own survival. Horses have proven to be curious. They have shown that horses usually resort to flight only after ascertaining that the situation at hand is risky or life-threatening. Since horses are herd animals, the reaction to a situation threatening an entire herd will be determined by the leading mare. With domestication and selective breeding, the contemporary world has now rendered horses more versatile, agile, and alert with sufficient endurance, and no longer dependent solely on the herd.

for protection. This is an advantage when considering dangerous or sticky situations. Primitive wild horses did not possess these characteristics and were more prone to attack and predation (Frandsen, Wilke & Fails, 2009).

Horses have a social life too. They have the capacity to form strong bonds with their own species and with other species as well. Studies have indicated that horses tend to become more aggressive and violent and difficult to tame when isolated as opposed to putting them in a herd. Training, though tedious, can help in addressing this situation. Horses can communicate with each other and with other species through body language, nickering and whinnying (McGreevy, 2013).

Major Diseases in Horses

Major diseases in horses are those that can be transmitted between horses, or be acquired by different disease vectors. Acknowledging these diseases will help horse owners to ensure successful health management of their animals. One of the major diseases is tetanus. The main cause of tetanus is a bacterial toxin, which is mostly found in soil (Thrusfield, 2013). Tetanus bacteria usually thrive well in oxygen-deprived areas such as puncture wounds or wounds that have already recovered. Some of the symptoms of tetanus are stiff neck and muscle stiffness. Tetanus, however, is avoidable through annual use of vaccines (Thrusfield, 2013).

Another major disease is Equine Encephalomyelitis. Also known as sleeping sickness, this disease mainly attacks the nervous system (Gelatt, Gilger & Kern, 2012). It is mainly caused by three strains of equine encephalomyelitis viruses, whose vectors are the mosquitoes. Dominant signs for this disease include depression, fever, partial blindness, incoordination, muscle tremors, and eventual body paralysis (Gelatt, Gilger & Kern, 2012). West Nile Virus is

also a major mosquito-borne disease in horses. Mainly, WNV is transmitted by mosquitoes though some horses may never show signs of the disease, and eventually they are able to recover (Gelatt, Gilger & Kern, 2012). However, some horses may be severely affected by the disease whose main signs include fever, weakness, limb paralysis, incoordination, head pressing, swallowing problems, and coma. Prevention of these two diseases requires vaccination and sound mosquito control program.

Equine Influenza is another common disease in horses. It is spread through inhalation. Dominant signs include dry coughs, fever, excessive nasal discharge, depression, and weakness. Although this disease is rare, it can cause severe problems leading to bronchitis and pneumonia (Thrusfield, 2013).

Another viral disease in horses is Equine Herpesvirus. Equine Herpesvirus occurs in two forms; EHV-1 and EHV-4 (Gelatt, Gilger & Kern, 2012). These two viruses cause different symptoms for the disease. The EHV-1 is associated with respiratory diseases, reproductive complications as well as neurological problems. Conversely, EHV-4 is only limited to causing respiratory-related ailments (Thrusfield, 2013). Vaccines are available, but must be given prior to infection; otherwise, serious complications can occur. Treatment of the infection ensures reduction in the outbreaks, and the previously infected horses can build-up immunity over time (AAEP, 2015).

Diseases can be acquired from other animals include rabies and strangles. Rabies is another disease prevalent in horses (Thrusfield, 2013). Though it is not common in horses, rabies can be introduced through a bite by infected animals such as dogs and bats. Horse owners are expected to vaccinate their horses against rabies, since their horses can acquire the disease.

Strangles is an infectious diseases in horses. Dominant signs include fever, thick nasal discharge, and lymphadenopathy around the jaws. Mostly, transmission occurs through nasal contamination of feed as well as feeding troughs (Gelatt, Gilger & Kern, 2012).

To finish the list, there is Potomac Horse Fever, a bacterial invasion of blood plus tissues (Gelatt, Gilger & Kern, 2012). Dominant signs include fever, profuse diarrhea, depression, colic, coma and eventual death (Thrusfield, 2013). Having an understanding of these diseases are important to any horse owner as it ensure quick identification of disease occurrence. In addition, it will ensure that horses are kept healthy and vaccinated against them.

Feeding Horses

Horses should be provided with free access to feed such as hay and pasture forages. When forage is not available or limited, then a more a concentrated form of feed must be provided such as grain or pelleted feed. However, there should be a limit based on starch content of the feed being provided. It is recommended for feeding forages or hay to give 1-2% of body weight (Humane Society, 2014), and to give <1% of their weight in high-starch concentrates (Cunha, 2012). Exceeding the amount in high-starch concentrates within a single feeding can result in digestive inefficiencies and cause problems, including laminitis and gastric ulcers. If the feeds have high starch content, there is need to divide the amount into 3 or more feedings (Frape, 2008). Studies have documented that having more grain concentrate within a feed increased the risk of colic and gastric ulcers in horses while high starch content may cause insulin resistance in both young and adult horses. Heavy meals containing too many starchy concentrates should be avoided before active exercise (Cunha, 2012).

Since horses are often receptive to toxins found in feeds, all the feeding material offered to horses should be of high quality. Grains must be stored in dry places to avoid mold formation (Frape, 2008). On the other hand, dusty feed should be avoided as it may cause respiratory problems. In addition to the provision of dry feeds, horses must be provided with sufficient clean drinking water, free of contaminants (Cunha, 2012).

Social Behavior of Horses

Many horses quickly adapt to various environment, unlike other animals. They are social animals that under wild settings live in small groups. Like other creatures, social behavior of horses developed from adaptive evolution (McGreevy, 2013). They also show hierarchal dominance in the herd and will always form orderliness in order to identify which member controls the behavior of the entire herd. This behavior is important in the creation of a relationship with humans. A domesticated horse will always regard its owners as a herd member, and preferably leader, as a result, they follow human orders (McGreevy, 2013).

Hierarchical structure with the herd

In the wild, horse herds are often comprised of several distinctive groups, who always share a particular territory. The group has one stallion as its leader. This is despite the fact that the group also contains other mares and adult stallions (Sumpter, 2010). These groups are mostly made up of few horses, but the number can exceed a few dozens. The structure of the group changes over time as young horses are dispelled from the groups to go and join other groups. With this, there will be less competition for dominance.

The need for survival dictates the cooperation among all herd members and makes them always to stick together. Similar to other animals that live in groups, creation of a hierarchy

order is important for effective functioning of that group (Sumpter, 2010). Competition for dominance would mean increased risk since kicks may cripple other horses making the defenseless, and unable to feed. As a result, the dominant horse is also mandated to control aggressive behavior within the herd to prevent fights (McGreevy, 2013).

Studies done on wild horses have revealed that stallions within a herd are the one who drive away the young ones (McGreevy, 2013). As a result, scientists have theorized that this act is meant to prevent inbreeding so that there are no mating between the parents and their offspring. The young fillies end joining other bands while young colts join bachelor bands until they are mature enough to gain dominance within a band (Sumpter, 2010).

Social structure with humans

Horses usually form a close relationship within themselves, and also with other animals as well as humans. Indeed, horses will develop anxiety and become a challenge to handle if they are kept alone. Isolating horses using closed stable where they can barely see each other may necessitate another animal companion to offer the company and help it reduce stress (McGreevy, 2013). In the case of occurrence of anxiety, while handling a horse, humans will find it hard to manage it. However, with proper training, a horse can learn to live comfortably with humans even without companionship of other horses. Mostly, horses are trained to rely on their handlers by classifying them as members or leaders of their herd (Sumpter, 2010).

Chapter 3

Over the past years, horses have been used by humans for different purposes. In the early years, horses were used in battles and in agricultural activities (Dawkins, 2012). However, their uses have evolved from traditional to modern roles. Their anatomy contributes to the many uses of horses. For instance, their gait enables them to run at a high speed, which explains why they are used for racing. The powerful build of horses has allowed them to be used for a variety of sports, among other uses (Greene, 2009). This chapter will review the different uses of the horse and try to outline how these uses have evolved over the years.

Uses of Horses

Among these uses of horses is food (Greene, 2009). However, horse slaughtering has been eliminated in some countries while others still maintain it. Other uses include agricultural work, battle and transport (Dawkins, 2012). Horses have pulled canons and carried warriors during battle in past centuries. Also, they were very important for herding cattle within big ranches. As the popularity for the use of modern engine increased, the uses of horses changed from work to recreation animals (Greene, 2009). Currently, some people still use horses similar to the past such as in agricultural work. However, these practices have been greatly reduced or eliminated in some areas, such as in the U.S (Dawkins, 2012). Modern use of horses includes leisure purposes and also for events such sports and weddings.

Horse For Food

Horse slaughter has recently hit the headline, becoming one of the current trends in the world of horses. However, slaughter of horses has been in existence for many more years than most people think. Their slaughter gained popularity after the Second World War mostly in Europe (Dawkins, 2012). The reason for this was that low-income earners were unable to buy beef. As a result, people started slaughtering lame and old horses. Eventually, horsemeat consumption spread even to the wealthy people and later turned out to be considered a delicacy (Munro & Munro, 2008). By then, the U.S horse population was so huge, that it became the primary supplier for Europe. There were no specifications of particular breeds to be slaughtered. However, due to outcries by many Americans, the U.S enacted laws banning the slaughter of horses in 2005 (Dawkins, 2012).

Military and Ceremonial Uses

For almost one thousand years now, the horse has been playing a key role in the life of human beings. In the medieval age, the horse led combat troops to glorious conquest. For instance, horses have been used by riot police in many parts of the world to deal with crowd control. In addition, they have been used by the police to control large groups of people during public gatherings, notably political rallies. Horses have facilitated the movement of people of nobility in particular, e.g., the queen of Sheba from Egypt to Israel when she paid Solomon a courtesy call. Horses have also been featured in marriages and even funerals. In the former case, horses are used to pull a chariot carrying the bride and her groom.

Horses and Sports, and more

Today horses are used for a variety of activities both leisure and professional (Smiley, 2004). For leisure, horses can be used to tour the countryside. One can also mount his or her

horse and have an informal evening trot within the neighborhood. Horses can also be used to herd other animals, especially in big ranches. This is a common practice in Australia and New Zealand, and western areas in the United States. Horses can also be used for leisurely sports e.g. family races. In the steppes of Mongolia for instance, it is not uncommon to behold sights of young teens perched atop the backs of horses many times bigger than themselves, racing like lightning just for fun (Dawkins, 2012).

Horses can also be used during formal sporting events like dressage, eventing, and show jumping. While some people ride a horse for recreational purposes, others train theirs for cart racing, steeplechase, rodeo, polo as well as horse racing amongst others. Strong and well-composed horses have over many years been used in sport-related activities accompanied by humans (Greene, 2009). Horses are specifically trained for these competitions and there is often a prize associated with each win. These are among many sports activities that have dominated the use of horses for many years. For many years, the world most famous horse racing event, Kentucky Derby, has seen the racing of world well-known horses. Horses with famous names have won different titles in these activities (Greene, 2009) such as Secretariat, Seattle Slew, and Affirmed. These events help in creating social fabric and maintaining it. Just like many other different sports, equine-related sports are meant to encourage social and peaceful co-existence.

Chapter 4

Purchasing and Looking After a Horse

The desire to have a horse is a valid one. The process of looking for a suitable horse is easy yet complicated at the same time. First, an individual must prepare well financially in order to get a suitable horse because horses can be expensive. Then it is important to buy the proper horse based on the experience of the rider, so age of the horse and level of training become key factors in selection of the horse. A person must also scrutinize the horse to ensure that it is physically and mentally healthy. A distressed animal could indicate mental instability or poor training.

After finances are secured, then the hunt for the proper horse begins. The owner must determine why they want the horse- for what purpose. Will the horse be used for sports such as jumping or endurance? Will the horse be used for daily training or for their children? This is where the decision regarding age and training level of the horse becomes important. If purchasing a horse for a child or inexperienced rider, then possibly an older, more trained horse would be better. If young adult with experience, then a young horse would be a good choice. If the purchaser were an older adult, then a young horse or an older horse would be fine depending on the experience level and goals of the purchaser. Since the older adults are usually busy in their lives and may have fears to get injured or maybe they suffer from health issues, they may prefer a middle age well trained horse. All these factors must be considered when purchasing from hopefully a reputable horse dealer or owner.

A future horse owner must plan for stabling, or a good place for the horse to live. Many owners like to keep their horses in a place for the care and training. Most horses are typically kept in stable facilities or equestrian clubs, though some people have farms with pasture areas. Since horses should be taken care of by providing high quality forage from hay or normal pasture (Smiley, 2004), these latter owners do not have additional expensive of stable fees. Owners need to be sure that stable or feeding areas are clean and trough for grain are high enough to minimize rodent problems. Proper feeding has already been discussed in chapter 2. The horses must also be supplied with plenty of clean water each day (at least 40L per day).

A horse owner must also provide regular veterinary and farrier services for his or her horse. With respect to veterinary care, the need for vaccinations was discussed in chapter 2 under disease of the horses. Veterinary care should also include annual or semi-annual teeth floating, where the teeth are level for grinding food. Looking at the teeth is important in order to ascertain the age of the animal. The horse owner must routinely seek the services of a farrier to look at the hooves of the animal. The farrier will check and trim the hooves and if needed places shoes on the horse.

Purchasing of equipment is an additional consideration. Brushes for grooming, and hoof picks, as well as saddlery is needed. The owner must take time to check the horses when grooming with the brushes for cuts, infections, soreness, and damages to the body, legs, and hooves. This is important both before and after exercising the horse.

Daily exercise is important for a horse. Pet or companion horses, such as miniature horses, should be exercised daily for the purposes of their physical as well as mental health. Some people use pet horses for the purpose of bringing kids to horses and equestrian sports,

enhance children's self-confidence, and get children to learn patience and courage; all these qualities can be acquired through this exercise. During exercise, the owner can see the development of the horse's skills, and eventually the horse becomes eligible to ridden and to be purchase as well. The young horse when trained properly with plenty of exercise will be service longer and have a healthier life.

Conclusion

This paper has reviewed horses and discussed various factors pertaining to horses such their significance in history, their lifespan, their anatomy and the relationship between horses and humans, diseases and feeding. For many years, horses have been close companions for humans. Currently, humans use horses for many different purposes. One of the major uses of horses is a pet to an extent of being given as a birthday present. In this context, people have kept horses for leisurely purposes. The horse is arguably the most adorable animal one can have as a pet. However, this is mostly preserved for the rich people who can afford the upkeep of a horse. They are a symbol of power, affluence, authority, and might.

Horses are also used for different sports activities as the world has been dominated by sports. Amongst the famous sports is horse racing, which is practiced in many countries. Other sports activities include dressage and show jumping, just to name a few others. From all around the world, people can be seen enjoying these sports. Another use of a horse is as a source of food. Although it may seem weird and unethical to many, horse slaughtering is still practiced in some countries. Horses are also important to the security of some countries. Currently, horses are used by the riot police and also in border monitoring.

With these numerous uses, we can conclude the horse is amongst the most important animals to humans. Therefore, there is the need to take care of this precious animal. This will ensure maximum care is taken of the horses, which means minimal occurrence of injuries, diseases and deaths. However, taking care of horses requires adequate understanding of their diseases, behavior, as well as feeding practices. In addition, it is also worthy to understand the different breeds, their anatomy, and history since as Pam Brown quoted, “A horse is the projection of peoples' dreams about themselves--strong, powerful, beautiful--and it has the capability of giving us escape from our mundane existence” (Inspirational Horse Quotes, 2014).

References

- AAEP (2015) Equine Herpesvirus webpage. American Association of Equine Practitioners, <http://www.aaep.org/-i-173.html> [downloaded: 02-24-2015].
- Cassidy, R. (2009). The horse, the Kyrgyz horse and the 'Kyrgyz horse'. *Anthropology Today*, 25(1), 12-15.
- Cunha, T. J. (2012). *Horse feeding and nutrition*. New York: Academic Press. Vol. 5, p. 342-351.
- Dawkins, M. (2012). *Animal suffering: the science of animal welfare*. New York. Springer Science & Business Media. Vol. 2, p. 152-161.
- Frandsen, R. D., Wilke, W. L., & Fails, A. D. (2009). *Anatomy and physiology of farm animals*. John Wiley & Sons. Vol. 45, p. 334-345.
- Frape, D. (2008). *Equine nutrition and feeding*. New York. John Wiley & Sons. Vol. 1, p. 239-247.
- Gelatt, K. N., Gilger, B. C., & Kern, T. J. (2012). *Veterinary ophthalmology* No. Ed. 5. John Wiley & Sons. Vol. 3, p. 401-414.
- Green, S. (2012). *The Arabian horse*. Minneapolis, MN: Bellwether Media. Vol. 10, p.197-212.
- Greene, A. N. (2009). *Horses at work: the harnessing power in industrial America*. Harvard University Press. Vol. 2, p. 341-342.
- Heleski, C., Wickens, C., Minero, M., DallaCosta, E., Wu, C., Czeszak, E., & von Borstel, U. K. (2014). Do soothing vocal cues enhance horses' ability to learn a frightening task?. *Journal of Veterinary Behavior: Clinical Applications and Research*. Vol. 10 (1), 41-47.

- Heuser, R. R. (2009). A horse, a horse, my kingdom for a horse. *Catheterization and Cardiovascular Interventions*, Vol. 74 (2), 371-372.
- Humane Society (2014). The Rules of Feeding Your Horse. From The HSUS Complete Guide to Horse Care. http://www.humanesociety.org/animals/horses/tips/rules_horse_feeding.html [downloaded: 02-25-2015].
- Inspirational Horse Quotes. (2014). Retrieved March 9, 2015, from <http://www.beliefnet.com/Love-Family/Pets/2010/06/Horse-Quotes.aspx?p=2>
- Julien, C. (2006). *Little horses*, North American ed. Milwaukee, Wis.: Gareth Stevens Pub. Vol. 4, p. 532-546.
- Kavar, T., & DovÄ, P. (2008). Domestication of the horse: Genetic relationships between domestic and wild horses. *Livestock Science*, Vol. 116 (1-3), 1-14.
- Kummer, P. K. (2013). *Working horses*. New York: Marshall Cavendish. Vol. 8, p. 68-97.
- Lau, A. N., Peng, L., Goto, H., Chemnick, L., Ryder, O. A., & Makova, K. D. (2008). Horse Domestication And Conservation Genetics Of Przewalski's Horse Inferred From Sex Chromosomal And Autosomal Sequences. *Molecular Biology and Evolution*, Vol. 26 (1), 199-208.
- Lippold, S., Matzke, N. J., Reissmann, M., & Hofreiter, M. (2011). Whole mitochondrial genome sequencing of domestic horses reveals incorporation of extensive wild horse diversity during domestication. *BMC Evolutionary Biology*, Vol. 11 (1), 328.
- McBane, S. (2012). Horse senses. CRC Press. Vol.15, p.102-113.
- McGreevy, P. (2013). Equine behavior. *A guide for veterinarians and equine scientists*. Edinburgh: Saunders. Vol. 4, p. 378-399.

- Morin, P. (2006). *Honest horses wild horses in the Great Basin*. Reno: University of Nevada Press.
- Munro, H. M., & Munro, R. (2008). *Animal abuse and unlawful killing: forensic veterinary pathology*. New York: Elsevier Health Sciences. Vol. 4, p. 145-157.
- Otfinoski, S. (2010). *Horses*. New York: Marshall Cavendish Benchmark. Vol. 4, p. 452-489.
- Simon, S. (2006). *Horses*. New York, NY: HarperCollins Publishers. Vol. 4, p.276-295.
- Smartt, P., & Chalmers, D. (2009). A new look at horse-related sport and recreational injury in New Zealand. *Journal of Science and Medicine in Sport*, Vol. 12 (3), 376-382.
- Smiley, J. (2004). *A year at the races: reflections on horses, humans, love, money, and luck*. New York: A.A. Knopf. Vol. 5, p. 315-326.
- Sumpter, D. J. (2010). *Collective animal behavior*. Princeton University Press. Vol. 2, p. 326-334.
- Thrusfield, M. (2013). *Veterinary epidemiology*. Elsevier. Vol. 2, p. 276-295.