

HANDLING AND MANAGEMENT IN HORSE FARMS: REVISIONAL STUDY

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ABSTRACT: The objective of this paper is to make an approach to agribusiness and development of equine in Brazil, focusing on handling and management in horse farms. To that end some topics were developed as nutrition, health, hygiene, infrastructure, horse`s hoof and shoeing care, reproduction as well as an approach to the main professionals linked to the area. Equine is a significant sector that is growing and consolidating the Brazilian market, under the paradigm shift that equine is a *hobby* or elite business moving into a promising industry or for those who want to become professional in the area

Keywords: Equine. Handling. Health.

1 INTRODUCTION

Equine in Brazil was always seen as an elite business, however, it is emerging and highlighting in countries like The United Kingdom, Ireland and Latin American countries. According to a research data of the Escola Superior de Agricultura Luiz de Queiroz , published in 2006 in the Rural Magazine, Brazil ranks fourth in the world rankings and ranks first in South America.

The paradigm shift that moves equine as an elite business into a profitable business provides knowledge to those who are interested in theoretical and practical knowledge through many courses that are offered to deal with agribusiness, equine, provide them estimates, requirements and care to those who are interested in this market segment. The rupture of this changing is not going to be an easy or short task; It is necessary to know and measure agribusiness of horses to create a theoretical support to formulate policies that allow its development.

Researches announce an innovation and another conception in equine industry due to its comprehensiveness, that generate new jobs with the approaching from the importance of the horses in the formation of Brazil to the main segments of the agribusiness horse complex

in Brazil. (ESALQ, 2006). Therefore, equine is a type of promising business that gives an economic contribution, income generation and job openings.

The problem on this research was formulated by questions such as: Is horse market increasing day-by-day under the focus of the paradigm shift, ceasing to be a hobby becoming a new and growing slice of the market, then there are trained professionals in the administration area, with sufficient knowledge to meet marketing needs? It becomes evident with the growth of equine market, job offering will grow and the demand for qualified staff will also grow.

The raised basic hypothesis is that if the equine market is already in ascendancy with the paradigm shift, the knowledge in horse farm management will help to consolidate its growth.

This work aimed to make a review of the literature in the equine area, more specifically regarding the handling and stud management. Therefore, the aim of this project is to demonstrate, under a theoretical analysis, the aspects and care of horses in Brazil and consolidate equine image as a significant sector.

2 HISTORICAL EVOLUTION OF HORSES IN BRAZIL

Horses already existed for 55 million years; according to fossil researches, horses were originally found in the southern United States, migrating to north, then to Europe, Asia, through an evolution of the species and changing some features. Some of the horses disappeared because they could not adapt to geological changes, others were coming up with different characteristics (SILVER, 2000).

However, the arrival of horses in Brazil was only officially registered in 1549, coming from Cabo. These horses were bred with bovine culture, with strong influence on the basis of the Brazilian economy. The base of the crop was sugar, producing cane and cattle breeding with horse troops needed to work with the cattle. With the start of mining cycle, horse went to interior of Brazil, expanding horse breeding. The south has become a major supplier of horses for all regions along with cattle fairs held in Sorocaba and in Minas Gerais, regions that are considered important for the development and economy of Brazil during the colonial period (ESALQ, 2006)

The horse had economic importance playing saddle functions for the cowboy, in the livestock, charging functions for conveys and delegations and traction functions as a vehicles and milling motors. This cultural importance includes vanity and exhibitionism, highlighting the sport and leisure activities (ESALQ, 2006)

According to Cintra (2010), the memory regarding importance of the horse in political, social and economic formation allows us to understand the current horse agribusiness profile. Although still have many areas to explore, equine is an integral part of National economy.

3 EQUINE AS A SIGNIFICANT SECTOR

Brazil has the fourth highest position in the horse herds in the world, with about 6 million animals, behind the United States which has the first position with 9.5h million. The second place is China with 7.9 million and, on third Mexico with 6.2 million, according to statistical data from FAO Statistic of live animals 2009, and IBGE Agricultural Census on 12/31/2009 (CNA, 2010).

According to Pio Guerra, vice president of the Confederation of Agriculture and livestock in Brazil – CNA, the sector is important to Brazilian economy as a whole are generate about 7.3 billion business and more than 700 thousand direct jobs, ranging from handling animals to sale of inputs, events and sports. It observes that even in relation of rural credit, the main problem is the lack of information about the line of existing funding. It required a coordination with Bank of Brazil and the breeding associations to publicize the existing Credit line (CNA, 2010).

Auctions can be an important indicator of the horse market, which has grown consistently since 1998 presented a positive growth curve. We can highlight also the increase in the average price per auctioned lot, favoring equibusiness and allowing better pricing (LIMA, 2012).

You can also divide the horse agribusiness activities before the gate, inside the gate and after. The activities before the gate include input suppliers, products and services that enable the creation of horses to occur, considering the following areas: veterinary medicine, feed, hay, saddlery and accessories, trimming and shoeing, equine transportation and education. (ESALQ, 2006).

4 ANALYSIS MANAGEMENT IN DESCRIPTIVE HARAS

This chapter has the intention of providing a description of the general aspects of management of a horse farm in relation to the knowledge needed and its main aspects, such

as management, health, training, nutrition, reproduction and the practice of management including hand-to-work and documentation.

4.1 Installations

According to Braga (2013), there are special precautions to be taken in the construction of stables in order to ensure physical well-being and mental health to animals. There are many types of stables that may be constructed of wood, concrete or masonry. The tiles must not be of material that can be very hot in the summer and, if it rains, should not make too much noise, an important fact for the health of the animal. The stalls should be free to allow the animals to move freely and make the necessary movements, such as when the horse lies down near the wall, it needs space and then if it needs to raise. The approximate size of a stall is 3m x 3m. In the case of mares that will give birth, the stables must be at least 4 m (SILVER 2000).

Ventilation must be planned to circulate throughout the stall, built one or two openings at the top, at the same time protect from the cold, rain, but circulate the air in the summer. The floor should be slightly tilted for the flow of urine, preventing the horse's legs from getting wet (LAROUSSE, 2007). According to Campos Júnior (2008), it can be to establish environmental principles that must be met, such as: promoting ecological management of pasture with rotational scheme; care for the soil to prevent erosion, contain contour lines and fertilize the pastures with organic fertilizers made with manure and grass.

4.2 Handling

The daily handling with the horse must be an activity of competent people, interested, committed and peaceful, because the horse is susceptible to the mood of the person who feeds it. It is very important for animals to have a feed routine, choosing a time that is strictly adhered to every day, in addition to providing an adequate health status, and physical and mental well-being. Also of great importance is the physical contact and can be performed daily at the time of hygiene; combing, brushing, cleaning hooves (CINTRA, 2010).

According to Larousse (2007) is required material for the horse hygiene, comprising: combs, a cloth, brush, comb mane and tail, hull cleaners and grease with brush to the hulls, cleaning them when dirty clay or mud that cause discomfort to the animal. In addition to cleaning it is important for hygiene, it is also part of prevention of wounds when the hair is not brushed and sanitized, serving to verify the animal as a whole realizing and being able to handle just some abnormality and the affection he feels on this attitude. This service must be done daily and especially before mounting.

The periodic appearance and daily cleaning are essential for good health of the hooves. The trimming aims to keep the hooves in optimal size and format, taking advantage to make possible corrections. Even in the first months of life is possible aplomb's corrections. Horses undergoing work in abrasive and gravelly soils with aplomb defects, or treatment of certain diseases soil is indicated shoeing, what should be done every 30 days (Beck, CINTRA, 2011). According Knowlton (2013) the greatest responsibility of trimming professional is to keep the balance, the integrity of the hoof, the horse comfort and support to members.

4.3 Nutrition

According to Cintra (2013) nutritional program should be appropriate to the function developed by the animal and the category to which it belongs, taking into account the nutritional requirements as well as energy and water, the different categories According to Braga (2013), food must be of good quality, reliable source and supplied according to the nutritional requirements of each animal category, varying according to age, labor intensity, race, pregnancy, lactating mares, and animals in breeding season.

4.3.1 Hay

According to Gonçalves (2013), in nature pastures are the food of horses, spending more than 80% of their time grazing and selecting fodder with high moisture content, carbohydrates, protein and little starch content. To be tamed by man, the horse had its natural habits changed, passed to stay in stables, with small meals a day and no ability to select the nutrients. And with the growth of equestrian sports, the horses began to receive an incompatible power to their needs.

Forage should be at the point, for the old and stringy, according to Cintra (2010) the roughage is the ideal food for the horse, it is essential to seek to maintain a resemblance to their nature, meeting their basic needs. To this must be considered that the horse is an herbivore animal, which feeds especially vegetables, known for bulky, forage, hay or simply "green". The source of fiber, which is essential for the horse, assures her physical and mental integrity, ensuring a supply of nutrients for it to perform its functions.

Forage should be the basis of the daily diet; slowly, the horse should drink large amounts throughout the day (LAROUSE, 2007).

Hay is subjected to a process that seeks to maintain the nutritional qualities and facilitate storage. Its color should be green in the middle ground between dry and wet, be soft, have pleasant aroma and free of mold or dust (CINTRA 2010).

Forage should be fresh, for the old is stringy, according to Cintra (2010) the roughage is the ideal food for the horse, it is essential to seek to maintain a resemblance to their nature, meeting their basic needs. To this must be considered that the horse is a herbivore animal, which feeds especially vegetables, known for bulky, forage, hay or simply "green". The source of fiber, which is essential for the horse, assures her physical and mental integrity, ensuring a supply of nutrients for it to perform its functions. The forage should be the basis of the daily diet; slowly, the horse should drink large amounts throughout the day (Larouse, 2007). Hay is subjected to a process that seeks to maintain the nutritional qualities and facilitate cause digestive disorders, while the very young can cause diarrhea. The roughage should not remain in the trough more than 12 h, to prevent fermentation and the consequent risk of digestive disorders, and should not mixing hay and feed. It should obey an interval of at least one hour between the roughage consumption and concentrate (Batista, 2012).

According to Marins (2013) the quantity of roughage should be at least 5 kg per day.

4.3.2 Concentrate

The concentrate is a high food energy and / or protein value, usually obtained from cereals. Corn, sorghum, oats, wheat, barley, rice and rye grains are examples of energy. The soybean, cottonseed and peanuts are protein sources (Beck, CINTRA, 2011). With the add function and correct the animal's needs, the ration should provide energy levels, protein, vitamin and minerals to meet the needs of each animal (CINTRA 2010).

The quantity of concentrate to be administered daily to the horse varies according to its activity, their weight and age. The total consumption / month is related to weight, and for each 100 kg, must provide 0.5 to 1.0 kg of concentrated feed. Not amount to more than 2.5 kg of concentrated feed at a time. In foals, between 1 and 2 years the average consumption ranges from 2 to 4 kg / day, depending on the breed. For adult animals, the average ranges 4-6 kg / day is recommended to divide it into two or three times, morning, noon and afternoon (MARINS, 2013).

4.3.3 Minerals

According to Cintra (2010) the mineral salt is also essential to meet the needs of horses relatively high in relation to minerals. Must be provided at will, a specific salt for the species.

4.3.4 Water

With regard to water, the horse is made up of more than 50% of your body weight of water, and its consumption varies from 25 to 60 liters per day (BECK, CINTRA, 2011). One should remain clean and fresh water whenever the animal's willingness to meet the needs and prevent digestive disorders (CINTRA 2010).

4.4 Sanitary control

The cheapest way to keep an equine breeding, according to Beck and Cintra (2011) is the prevention of diseases, including best management practices, proper nutrition and, above all, a planning parasite control and vaccination script. A good pharmacy must contain emergency drugs, such as analgesics, antipyretics, anti-inflammatory, antibiotic, antiseptic and cicatrizing repellent spray and powder, tetanus and antiophidic sera, alcohol, iodine, hydrogen peroxide, disposable syringes and basic dressings.

An effective vaccination schedule is of utmost importance in combating and prevention of infectious diseases. As the worming schedule that should be monitored in conjunction with stool tests (OPG), to verify the effectiveness of the anthelmintic to be used (Braga, 2013).

Influenza, also known as viral influenza attacks the respiratory system and is highly infectious; during treatment the animal should be rested and isolated because of the high transmission rate. Tetanus is a disease caused by a toxin that thrives in anaerobic environment and that usually affects injuries, and difficult to cure and little chance of recovery, but easily preventable, being made with annual vaccination. Encephalomyelitis is a contagious infectious viral disease transmitted by insects, affects neurological functions, causing disturbance, motor disturbances and paralysis. Rabies can be caused by bat bite, fox, and infected animals must be prevented by vaccination; the animal must be sacrificed affected, as well as no cure is transmissible to humans.

Strangles is a contagious infectious disease caused by bacteria that causes inflammation in the respiratory tract and fullness of the submandibular lymph nodes, is easily treatable, but the animal must be isolated to prevent transmission; despite being a simple illness untreated can lead to more severe complications (CINTRA 2010).

The equine colic is a very serious gastrointestinal illness that comes on quickly, causing abdominal pain, leading the horse to agitation, which may cause the animal's death if not treated urgently (CAMPELO; PICCININ, 2008).

According to the National Program of Health of Horses, established by normative # 17 of 8 May 2008, the equine infectious anemia is a disease caused by a virus, transmitted and incurable. Its symptoms are: high fever, bleeding tongue and eyes, weakness, loss of appetite, swelling in the limbs and abdomen, anemia. In some cases the animal can be apparently healthy, but to serve as a source of infection and spread disease. Normative Instruction # 45

of June 15, 2004 approving the rules for prevention and control of equine infectious anemia - IEA. The Glanders is a contagious, incurable disease, caused by bacteria and can affect humans, thus becoming a disease of interest in Public Health. There may be three manifestations: nasal, causing high fever, cough and nasal discharge may occur ulcers; lung, causing chronic pneumonia, with ulcers on the skin of the limbs and nasal mucosa; and skin, it occurs in the form of nodules and ulcers in the inner region of the limbs, may have dark yellow secretion. Normative Instruction # 24, of April 5, 2004, approving the rules for the control and eradication of glanders (BRAZIL, 2010).

4.5 Reproduction

Reproduction starts with the search for the ideal intersection, evaluating the qualities and characteristics which should be according to what you want to create, ie, the desired foal. According Larousse (2007) may be reproduction by natural mating or artificial insemination, a method that allows to significantly increase the number of mares served by the same parent during the same breeding season. It is the role of the manager record the date of coverage, to control pregnancy so that everything is ready in foal birth day. In 80% of births take place all perfectly at that time the animals follow their natural instincts, soon after birth, the mare does foal toilet, which stimulates respiration and circulation, as soon as he gets up and sucks.

The pregnant mare takes an average of 335 days (11 months), and may vary more or less. In the final third of pregnancy it is necessary to more closely related to nutrition, vaccination and worming Mare. It should also be previously chosen the place of birth, to be safe, quiet, spacious, clean and free of rocks and holes The control of the dates of mating and birth is very important for both the preparation for childbirth, how to communicate with the association of the breed, which are the first steps in the genealogical record of service, that is, the stud books, which must be made within the deadlines set for each race (BECK, CINTRA, 2011).

5 THE PRACTICE OF HARAS ADMINISTRATION

According to Cintra (2010), a major problem of equestrian centers is the lack of management, owners regard the activity as leisure, and are thus prone to failure. To avoid damage it is necessary to invest in business management, based on spreadsheets, skilled manpower and preventive management. The main task of the creator or administrator is daily monitoring the development and the health status of your squad while having at hand

spreadsheets costs, income and expenses. It must have a clear and concise way a map that shows the whole squad and all that involves the establishment and maintenance (LAROUSSE, 2007).

According to Beck and Cintra (2011), to help maintain the financial health of equestrian establishment, an estimate of expenditure and revenues is required, which aids in decision-making, indicating whether it should be made cuts or whether it is feasible to invest. So it is possible to estimate the financial result for the year, judging it positive or negative, in time to change plans.

The equestrian industry is growing gradually, and like any business, these institutions must be managed for profit and not losses. Due to the large amount of tasks in routine, often with daily, weekly, monthly, six-monthly and even yearly intervals, the equestrian activities, planning in advance is necessary to implement them during the period, and also have control of what was accomplished. Organization is paramount requirement to avoid forgetfulness and waste, for that most practical feature is the use of spreadsheets (BECK, CINTRA, 2011).

According ESALQ (2006), from 1990, the Equine industry turned professional and as a result parameters have emerged that allow the creator to get Equine cost values and the professionals necessary to the business.

Is part of the stud farm management have trained professionals, such as a veterinarian responsible for their squad, which should make weekly visits to check the health of all animals. Some controls such as vaccines, worming, first aid, and pharmacy control should be part of the manager's routine along with the vet. In the case of pasture control, an agronomist, and other professionals as handler, trainer, trimming chute, among others (ESALQ, 2006).

To work with horses is paramount keep up the inventory control and conservation of inputs such as feed, hay, alfalfa, mineral salt, medicines, hygiene materials, and other regular consumer products. The check, forecasting and planning should be well made for the replacement of the goods is made before stock is depleted. It is ideal to keep these inputs stored for a long time, due to the short shelf life and the large volume of products, requiring large spaces with ideal storage conditions, such as indoors, clean, dry, ventilated, sheltered from sun and rain (BECK; CINTRA, 2011).

As described in this project, the sector of Equine is growing, is opening new fronts, depending on a multidisciplinary team, to get good results. They were listed the main factors and the necessary knowledge about the branch for a manager. It is necessary for this, and like horses, are willing to face different situations and have often full-time in the care of these animals. It is important to have an organized team and interacting all the time. For greater control should be made notes and tables for monthly weight monitoring, vaccination, worming, reproduction, income and expenses, a map to see clearly the overall business situation.

6 FINAL CONSIDERATIONS

It was noted that to manage a horse farm is necessary, above all, knowledge in several areas, such as ethology and behavior; animal welfare; nutrition; first aid and illnesses; in addition to knowledge of administrative and establish good teamwork, avoiding waste and unnecessary expenses.

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