Characterizations of Horses at Auctions and in Slaughter Plants

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ABSTRACT

Types of horses were surveyed in non-cataloged auctions (n=1,473) and at slaughter plants (n=1,348). Soundness of horses, foot condition and body condition was scored. Slaughter plant horses had substantially poorer foot and body condition, and were less sound than the auction horses. Horses with an official Bureau of Land Management freeze brand were less than 1% of all auction horses and 2% of the slaughter horses. Slaughter plants in the United States assist in maintaining a level of horse welfare by preventing old and (or) unsound working/riding horses from further neglect or abuse.

Key Words: Equine, Horse, Slaughter, Auction

INTRODUCTION

The purpose of this survey was to characterize the types and kinds of horses that are sold at auctions and compare them to the types and kinds that are processed at the slaughter plants in the United States.

METHODS

Auctions. A total of 1,473 horses in ten different auctions were observed in the states of Texas, Kentucky, Indiana, Ohio, New Mexico, Colorado, Arizona, California and Pennsylvania. All of the auctions were open, non-catalogued sales that sold horses valued from $50 to $3500. Auctions were selected by Discussions with horse traders and USDA officials assisted in the selection of auctions thought to typically sell horses valued less than $3,500.

Slaughter plants. During the survey the slaughter plant in Illinois closed and was not surveyed, leaving 3 plants in the U.S., 2 in Texas and the third in Nebraska. A total of 1,348 horses from 81 different loads were observed .

Data Collection. The observer sat in the stands during the auction to record data on each individual horse. At the slaughter plants information was gathered on individual horses as they were being weighed and given a plant "back tag" number for identification purposes. The following data was collected on individual horses at the auctions and slaughter plants1) gender, 2) classification, 3) body condition, 4) soundness, 5) foot condition, 6) color, 7) age, and 8) breed.

Body condition score (BCS) was scored on a 5-point scale adapted from Henneke et al. (1983) with 1 = emaciated: may or may not have muscle wasting depending on age, very little flesh, ribs showing, no underlying body fat; spinous processes, tuber coxae and ischii projecting prominently: bones of withers, shoulders and neck showing prominently, 2 = thin: individual vertebrae not easily visually identifiable but can be felt, fat deposited along back and shoulders, but bony structures easily palpable. Ribs still visible; withers, shoulders and neck accentuated, 3 = moderate: bony structures no longer prominent or easily palpated, fat at tail-head makes hindquarters look smooth, depending on conformation. Neck blends smoothly into shoulders, 4 = moderately fat: May have crease down back, difficult to feel ribs. Fat around tail-head very soft, area along withers and down behind shoulders filled with fat. Noticeable thickening of neck, fat deposited along inner thighs, and 5 = obese: obvious crease down back. Patchy, lumpy fat along ribs. Flank filled with fat. Inner thighs may rub together. Bulging fat around tail-head, along withers, behind shoulders and along neck. All horses were scored for soundness. Horses that appeared sound with normal gait were recorded as sound, unless they showed unsoundness, as classified in the U.S. Pony Club Guide to Conformation and Movement (Harris, 1997). Hoof condition was scored on a 5-point system based on the adapted scoring system for body condition with A= very poor: toe or heel too long or short, dry and/or cracked, incorrect angle (obtuse or acute), B= poor: overgrown, dry or thrushy, cracks or chips, incorrect angle (obtuse or acute), C= acceptable: reasonable angle and length, may have chips but no cracks, shoes not necessary, D=good: little to no visible defects, good to excellent angle and hydration. If shod, shoes fitted correctly, and not overly worn. Corrective shoeing acceptable, E= excellent: No visible defects, correct angle and hydration. If shod, shoes fitted correctly and not overly worn, or loose nails. No corrective shoeing. Note: no horses were observed at either the slaughter plants or the auctions that would have been considered as having excellent feet.

RESULTS

Dramatic differences between types and condition (Table 1) of horses were seen at slaughter plants and auctions. Slaughter plant horses had substantially poorer foot ($P < .001$) and body condition ($P < .001$), and were less sound than the auction horses. The body condition of horses at the auctions was 2% emaciated, 20% thin, 67% good, and 11% fat or obese. At the slaughter plants 3% were emaciated, 27% thin, 59% good, and 11% were fat or obese. Very poor foot condition were observed in 2% of the auction horses and in 10% of the slaughter horses. Of the auction horses, 54% had acceptable foot condition, compared to 31% of the slaughter horses. Severe behavior problems observed at the auctions (2%) and at the slaughter plants (4%) were repeated rearing, bucking, and stereotypies such as repetitive head shaking. These behaviors were more complex than simple acute stress reactions to being in an unfamiliar environment.

Age and soundness of horses.

Eleven percent of the equines seen in all auctions were under two years of age and 3% were over twenty. Old (geriatric) riding horses were 7% of the auction horses. Only geriatric and juvenile age data was collected in Pennsylvania and in the slaughter plants. There were 211 (16%) geriatric horses and one horse under 2 years of age at the slaughter plant.

Soundness of horses between the auctions and slaughter plants varied. Sound usable riding horses (47%) were the single largest classification of horses at the auctions, and only 13% were sound at the slaughter plants. At the auctions 8% of the horses were obviously unsound, compared to 28% of horses at the slaughter plants.

Color and breed of horses.

Quarter-horses or Quarter-horse types were the most common breed of horse in the auctions and in the slaughter plants. It has been estimated that there were 6.9 million horses in 1999 in the U.S. (AHC, 1999) According to the

American Quarter Horse Association there were 2.7 million registered Quarter-horses in the U.S for the year 2000. Thus registered Quarter-horses comprise of approximately 40% of all horses in the U.S. Approximately 1/4 of all auction and slaughter horses were either Quarter-horses or Quarter-horse types. It is unknown how many of these were registered. Thoroughbreds or thoroughbred types comprised about 7% of all auction horses, and 16% of all slaughter horses. Standardbreds were approximately 4% of the horses at both auctions and slaughter plants. Horses with an official Bureau of Land Management freeze brand were less than 1% of all auction horses and 2% of the slaughter horses.

Ten percent of all horses were grays. USDA veterinarians interviewed indicated that 70 to 90% of all gray horses have melanosis tumors. Every gray horse that goes to slaughter is required to undergo an additional post-mortem health inspection by the USDA veterinarian. Depending on the location and extent of the tumors, part or whole carcasses are condemned.

DISCUSSION

Discussions with traders indicated that if a horse was sound enough to be ridden and it was not real old, they could usually get more money for it if they sold it for riding than if they sold it for slaughter. As a result, most horses are diverted away from the slaughter plants until they lose all potential as a riding or working horse. However, a severe behavior problem in an otherwise usable riding or working horses may render the horse non-saleable to the public and may be taken directly to slaughter. The horse industry is complex and multi-faceted. The life histories of horses prior to being sold for slaughter needs to be understood before appropriate regulations and decisions are made about the industry. Although this study did not examine the life history of horses, discussions with industry people assisted in understanding the complexity of the industry. According to our interviews, racehorses are frequently sold through private treaty and not through auctions Often these horses are sold to intermediary traders who re-train or continue with the current training of the horse before selling it back into the racing industry. Injured horses typically go either to a feedlot or directly to slaughter. The average age of a racehorse that becomes lame or otherwise "breaks-down" is six years of age. It is believed by people in the industry, that this is due to the horses undergoing a different training regime with every owner. From the interviews with people in the horse industry it was learned that it is not unusual for a horse to have been owned by 5 or 6 people by the age of six.

California markets. The law in California (California Proposition 6), which forbids the sale of horses for slaughter, may have worsened welfare for some horses. Some horses that would have remained in the U.S. are being transported to Mexico and subjected to many auctions and rerouted back to the U.S. resulting in longer transport time and an increase in the number of dehydrated horses arriving at slaughter plants. It is likely that some of the horses are passing through the hands of more traders, which would greatly increase stress and be detrimental to their welfare.

The vast majority of industry people interviewed believed that overall horse welfare would decrease if the option for slaughter was prohibited in the U.S. Most felt that one of five welfare concerns would happen to the majority of non-usable riding/working horses. 1) The horse would be turned loose to fend for itself. Often these horses starve or die from exposure, as they do not know how to search for proper food and shelter. 2) The horse will be kept on the property but neglected until its death. 3) The horse would be taken to a remote location, euthanized. This can be of concern if chemical euthanasia is used. Birds and mammals that feed on the carcass may die from the ingestion of the chemical. Some states require that carcasses are to be buried a sufficient depth in order to prevent scavenging! Many horse owners find the cost prohibitive to rent earth-moving equipment in order to excavate a hole large enough bury a horse. Water safety is another concern. Some states prohibit the burial of carcasses in order to prevent pollutants from entering the water source. 4) The horses may enter an underground horse trade that would circumvent veterinary and brand inspections, increase distance traveled before arriving at a slaughter plant, and perhaps increase the number of times bought and sold before reaching a slaughter plant. These horses would most likely be transported to either Canada or Mexico for slaughter. 5) The horse would be used in Mexico as a working or riding horse until it dies. Interviews with industry people indicated that the level of horse welfare in Mexico is typically poorer than the minimal welfare standards in the U. S.

APPLICATION

Decisions regarding the horse industry must be based on a comprehensive understanding of the industry. Since the completion of the survey, the Nebraska plant has closed. The remaining two slaughter plants should be encouraged to remain open in order to maintain a certain level of American horse welfare. These remaining slaughter plants are serving a purpose as they are humanely euthanizing horses that are no longer viable due to behavior problems, old age, health, lameness, etc. There is a public misconception that most horses sold at lower end auctions are sold to the slaughter plants. This survey found that slaughter plants were purchasing only those horses that were not being purchased as viable working animals. The welfare problems of these lower end horses occur prior to their arrival at the slaughter plant. Horses at the slaughter plants were in substantially poorer health than the horses seen at the auction houses, and the euthanasia of these animals improves their welfare by decreasing prolonged suffering.

This survey was conducted before Foot and Mouth Disease increased the demand for horse meat in Europe.

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Table 1. Body and foot condition scores of auction and slaughter horses.

Auction (n=1,473)			Slaughter (n=1,348)		Total (n=2,821)	
Body condition score	**n =**	**%**	**n =**	**%**	**n =**	**%**
Emaciated	25	2	37	3	62	2
Thin	289	20	359	27	648	23
Good	991	67	792	59	1783	63
Fat	161	11	149	11	310	11
Obese	7	<1	1	<1	8	<1
Missing data	0	0	10	<1	10	<1
Foot condition score	**n =**	**%**	**n =**	**%**	**n =**	**%**
Very poor	24	2	140	10	164	6
Poor	387	26	734	54	1121	40
Acceptable	796	54	422	31	1218	43
Excellent	104	7	42	3	146	5
Missing data*	162	11	10	<1	172	6

[1] Gelding, stallions, and colts

[2] Mares and fillies

*Missing data is from the Pennsylvania auction. This was the first auction visited before data collection categories were finalized.

Table 2 . Classification of slaughter horses.

Classification	n=	%
BLM Mustang (official freeze branded)	23	2%
Carriage horses	64	5%
Draft horses	94	7%
Feedlot known location	69	5%
Feedlot unknown location	55	4%
Native American reservation (branded)	57	4%
Mustangs*	57	4%
Mules or Donkeys	4	<1%
Pony or miniature	14	1%
Racehorses off racetrack	58	4%
Riding horses**	853	63%

*These horses typically had a classic phenotype: heavy feet, large head and a large compact body. Industry refers to this body type as a mustang or mustang type horse. Often these horses are feral.

**Riding horses include various breeds of horse such as Arabians, Fox-trotters, Tennessee Walkers, Thoroughbreds, Paints, and Quarter-Horses.

Table 3. Classification of auction

Classification
BLM Mustang (official freeze branded)
Carriage Horses
Draft Horses
Native American reservation (branded)
Mules or Donkeys
Mustangs**
Pony or miniature
Race horses off racetrack
Riding horses***

*At the auctions there were 0% hor
following categories – fattened fee
origin and fattened feedlot horse of
from PMU facilities were either no
were placed in another category be
be identified.

**These horses typically had a clas
feet, large head, and a large compa
refers to this body type as a mustan
horse. Often these horses are feral.

***Riding horses include various b
Arabians, Fox-trotters, Tennessee
Thoroughbreds, Paints, and Quarte