



Horses

in Rhode Island

2006-2007



PROJECT REPORT

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Designed by Celeste MacPhee

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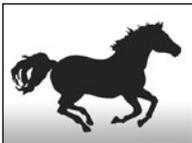
PROJECT REPORT

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“A HORSE IS WORTH MORE THAN RICHES.”

–SPANISH PROVERB



THE SANTANA CENTER

Promotes, encourages and fosters healthy interactions between horses and humans through education, training and outreach activities.



RHODE ISLAND SOCIETY FOR THE PREVENTION OF CRUELTY TO ANIMALS

Protects the rights and welfare of all animals and fosters the human-animal bond.



**RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT,
DIVISION OF AGRICULTURE, ANIMAL HEALTH UNIT**

Enforces state laws and regulations to control the spread of diseases that impact the livestock industry and that can spread from animals to people.

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ACKNOWLEDGEMENTS

Funding for the Rhode Island horse survey was provided by the Virginia B. Butler Fund and the Helen Walker Raleigh Animal Fund of the Rhode Island Foundation, a charitable community trust serving the people of Rhode Island (RI). The survey is sponsored by The Santana Center for Equine Education and Outreach (a non-profit 501(c)(3)), the RI Department of Environmental Management, Division of Agriculture, Animal Health Unit, and the Rhode Island Society for the Prevention of Cruelty to Animals (RISPCA). We would like to express our appreciation to the veterinarians who took time out of their busy schedules to answer our questions; Ms. Emily Krebs who took on the major task of collecting the information from the veterinarians; Drs. Richard Pollnac and Katherine Petersson from the University of Rhode Island (URI) who assisted with the development and review of the survey design; and all the horse owners, equine clubs and organizations that helped pass the word and answer the survey.

EXECUTIVE SUMMARY

The results of this survey show that Rhode Island (RI) has a thriving equine industry. Using both veterinary and owner surveys, we were able to determine that horse numbers in Rhode Island in 2006 ranged between 6814-7301. Due to the small size of the state and the concentrated rural areas, the density of horses in RI may be one of the highest in the country. Although the intent of this survey was not to evaluate economic impact of this substantial industry, there are many areas where there is potential growth to meet the needs of the industry, for instance in local quality hay production, rescue services and owner education.

There were several areas of concern expressed by the horse owners regarding the present and future of the industry. These included: access to safe riding areas, sufficient qualified veterinarians and farriers, horse neglect and abuse, costs of feed and supplies, unrealistic regulations, and emergency preparedness.

There are many state, federal, public and private organizations working on aspects of large animal issues. It would be advantageous to convene a "Horse Summit" in the near future to bring together those horse owners with service providers to begin to form a formal horse community.

INTRODUCTION

Rhode Island (RI) was historically one of the most important horse areas of the country. In the 1600's, breeding farms shipped Narragansett Pacers to all of the sea coast colonies and as far as the Caribbean for use on plantations. RI was the only colony that allowed horse racing and a one mile track was maintained at Sandy Neck Beach in South Kingstown (Herbert and Forester, 1857). RI continues to be horse country. Even though you may not see many large sprawling farms, horses are tucked into backyards, small stables and back fields.

The American Horse Council (AHC) estimated that in 1996, 1 out of 35 Americans were involved in horses and the horse industry in the United States produced over \$25.3 billion dollars in goods and services in Gross Domestic Product (GDP). The neighboring states of New Hampshire and New York claim that their equine industry brings in between \$385 million (Smith, 2003) to \$1.3 billion (AHC,1996) respectively, making it a major economic industry. The equine industry encompasses much more than horse breeding and sales and includes a wide variety of activities that include businesses (such as boarding, training, feed and supply, fencing, trucks and trailers); educational programs and intercollegiate equestrian teams at colleges and universities; equine assisted therapy programs, and rescue farms; youth development such as 4H and pony clubs and many recreational activities including competitions, camping and organized rides and events. Many universities offer equine management degree programs.

Although most horses today are purchased as hobby animals, they require a considerable investment of time and money. Many of these horses end up in life-threatening situations because of abuse, neglect or ignorance about the care and long-term commitment to the animal—horses can live upwards of 30 years. Rhode Island (and other New England states) has more older horses (between 20-30 years of age) than double the national average that require more specialized veterinary care (Paradis, 2006). Several cases of neglect, abandonment and cruelty are investigated by the RI Society for the Prevention of Cruelty to Animals (RISPCA) each year. Up to 1000 homeless horses and farm animal cases are handled each year by the regional center of the Massachusetts Society for Prevention of Cruelty to Animals (MSPCA) located at Nevin's Farm. Many horses are not receiving the minimum necessary care, such as annual shots and hoof trimming. USA-wide, the American Veterinary Medical Association (AVMA) has recorded a decrease in veterinary visits by horse owners of 44% since 2001 and a concurrent rise of 27% for the cost per visit (Shepard, 2008).

Horse-related emergencies can encompass a wide range of events. Contagious diseases can quickly overwhelm the animal care network and devastate the horse industry. Recent outbreaks of equine herpes virus and contagious equine metritis (CEM) have the potential to spread quickly and widely in breeding and show animals. Recent hurricanes in the Gulf states, wildfires in California and flooding in the Midwest have all pointed to the importance of state planning for emergencies including designating evacuation routes and providing temporary housing, water and food for animals that are displaced. Current support and emergency services in RI may not be adequate for the proper care of these large animals.

Even more critical for horse owners is the projected shortage of large animal veterinarians. A recent study by Koshgarian et al. (2008) found that veterinary schools will only produce about 21,600 graduates. This falls short of the estimated need of 24,000 new veterinarians. Large animal owners will feel the shortage quickly. Over 50% of the large animal veterinarians in New England will reach retirement age in the next ten years and few prospective veterinarians seem willing to take on the additional difficulties of working long hours, providing 24-hour emergency service and enduring the dangerous and uncomfortable working conditions that are required. Starting yearly salaries for large animal veterinarians are reported to be \$21,000 less than for their small animal counterpart.

There is no good estimate on the total number of horses in RI or on their potential economic contribution to the state. In the 2007 agricultural census conducted by the United States Department of Agriculture (USDA, 2009), 366 RI farms were listed with a population of 3486 horses, mules, burros and donkeys, but the USDA does not include private horse barns in their annual agriculture census. Paradis (2006) conducted a New England-wide survey of horse owners to describe the New England horse community and health care needs in the region. Only 3% of those responses (n=10) came from Rhode Island.

The possible range of horse numbers has been calculated using two standardized information sources and formulas. The AHC estimates that the real number of horses is 60% higher than that reported by the USDA census. The AVMA suggests an alternate method where the formula is based on number of households (AVMA, 2007). This formula assumes that the demographics from the community are similar to the national average.

METHOD 1:

Estimated number of horses = $(3486 \times 0.6) + 3486 = 5577$ horses

METHOD 2:

Estimated number of horses = $0.063 \times 408,424$ (total number of households in RI in 2000) = 25,730 horses

Besides the tremendous difference between the two estimates, there are many reasons to believe that the assumptions of these standard formulas are not met, such as the small size of the state of RI, the large urban (45%) and suburban areas, the dense human population, and high unemployment. Rhode Island is the most densely populated state after New Jersey and 86% of the population lives in urban areas.

This study is the first joint (private/public) effort to document the number of horses through the collection of “on the ground” information from veterinarians and horse owners.

METHODS

A cross-sectional (“snap-shot”) survey method was used to gather information about horses in Rhode Island (Taylor-Powell, 1998). There were two surveys conducted. The first was used to obtain an estimate of horse numbers and this was sent to veterinarians that service horses in Rhode Island. Second, an owner survey was used to obtain baseline information about horse use and care, as well as emergency preparedness.

The veterinarian survey consisted of two questions:

1. How many RI horses did you vaccinate against rabies in 2006?
2. What is the zip code where the horses were stabled?

Rabies vaccinations were used as proxy for number of horses since they are given once per year, usually by a primary veterinarian. A letter was first sent to the veterinarians in March 2008 with information about the survey and requested time for a personal interview. These personal interviews were conducted during April-June, 2008. If the veterinarian did not respond, they were contacted with a second letter, phone call or email.

The owner survey consisted of a written questionnaire containing 30 multiple choice with a fill-in option. There were three general segments: the first was on horse ownership and stabling facilities; the second was on horse use and care; and the third was on disaster planning. The respondent could choose to remain anonymous or provide an address to receive the results of the survey. A final space allowed for additional comments. The questionnaire was developed by two veterinarian/horse owners and was reviewed by a survey expert from the University of Rhode Island. It was pilot tested with a small group of horse owners.

The owner surveys were made available in April 2008 on the web-based “survey-monkey” available through the Santana Center website. Printed forms and an explanatory pamphlet were distributed by veterinarians and some cooperating farriers. Additional surveys were sent to feed and tack stores, horse clubs, and commercial barns, and surveys were distributed at local horse events. Information about the horse survey was published in local newspapers and online chat sites. The survey closed in August 2008.

The respondents were not identifiable. The reliability of the information provided is based on cross-checking each survey for consistency. Any survey that was not consistent between questions was removed from the analysis.

**THE TOTAL NUMBER OF
HORSES IN RHODE ISLAND
IN 2006 IS ESTIMATED TO
BE BETWEEN 6814 - 7301.**

RESULTS AND DISCUSSION

SURVEYS COMPLETED

There was no central location to obtain information about horse veterinarians. After searching phone books, websites, professional journals, veterinary associations and through discussions with horse owners, we started with a list of 41 veterinarians that represented 22 practices located in RI, Connecticut (CT) and Massachusetts (MA). Of these:

- 5 no longer used the phone number listed and had no forwarding number
- 1 was completely holistic and did not vaccinate for rabies
- 1 stated they did not practice in RI
- 5 did not respond but were not major practices in RI
- 2 did not provide information. They were believed to service some horses in RI (1 from CT and 1 from MA).

The final numbers of horses were provided by 10 of the practices representing 21 veterinarians (Appendix). Three of these practices provided complete zip code records; 7 provided accurate numbers of horses while 3 estimated a range (the average of the range was used).

There were 212 complete and consistent owner surveys received, of which 67 were received by mail; the remainder was received through the web-based survey. These owners accounted for 800 horses and provided general information about the horse community.

NUMBER OF HORSES

A total of 4911 horses were reported by veterinarians to have received a rabies vaccine in 2006. This number was modified by:

- Based on size of practice and location, we determined that an additional 200 horses in Rhode Island could be serviced by those 2 vets that did not report.
- The American Veterinary Medicine Association pet survey (Shepard, 2008) estimated that between 25 - 30% do not give their horses rabies vaccines (also includes the holistic practice that does not vaccinate). That adds 1703 - 2190 horses to the total.

The total number of horses in RI is estimated to be between 6814 - 7301. With a land area of 1,045 mile², the horse density would be approximately 6.5 - 7.0 horses/mile² (if uniformly distributed). If only non-urban areas are considered, horse density would be between 11.8 - 12.7 horses/mile².

ERROR AND UNCERTAINTY

There are many opportunities for errors in both precision and accuracy in the estimate obtained through the veterinarians. These include:

- Error inherent in range information
- Unless the veterinarian had the software to sort by zip code or state, there is an unknown error associated with sorting by hand.
- A veterinary practice could have been missed that operates in RI.
- The number of horses we estimated that are serviced by the 2 veterinary practices that did not answer the survey could be inaccurate.
- The non-compliance with rabies vaccines could be higher or lower than the national average. Paradis (2006) estimated that 10-20% of horse owners in New England do not vaccinate their horses. Although horses are generally believed to be low risk for rabies infection, in Rhode Island, there have been two cases of rabies in horses confirmed—one in 2007 and one in 2008.

Since it is not possible to quantify the error, we used data from the Coggins test to cross reference the results. Many rated shows and organized events require proof of a negative Coggins (Equine infectious anemia) test performed by a USDA approved laboratory. In 2006, the Coggins testing number from RI horses was reported to be 2876 (includes 4 labs). 50% of the RI horse owners in our survey answered that they compete (sometimes and often). If those shows required Coggins and owners have only one horse, then the expanded number of total horses in RI would be 5752. This number is slightly lower than the estimate, but not all smaller local events require documentation.

In order to extrapolate the information from the owner survey to the full population of horse owners as provided by the veterinarian survey, we checked for geographic consistency between the two surveys. There were 52 distinct zip codes reported throughout the state by the veterinarian survey (Figure 1). When grouped by county, Providence County represented the greater percentage of horses, followed by Washington County. This sample was limited by the available data (only 3 veterinary practices), however, they represent over 1575 horses.



Figure 1. Rhode Island counties.

When reported by the owners ($n=200$), the geographical distribution of horses in the State of Rhode Island was not significantly different than that reported by the veterinarians (Figure 2) ($D_{critical} = 0.10$; $D_{calculated} = 0.08$; $\alpha = 0.05$, Smirnov-Kolmogorov test). Therefore, for the purposes of this survey, the owner sub-sample is assumed to be geographically representative of the horse population in Rhode Island.

Interestingly, this distribution of horses does not match that of the 2007 USDA census (for number of horses and value of sales) where Washington County is ranked first followed by Newport, Kent, Providence and Bristol. However, our survey did not directly target breeding stables or sale barns; although 20% of the respondents answered that they received part of their income from the sale of horses.

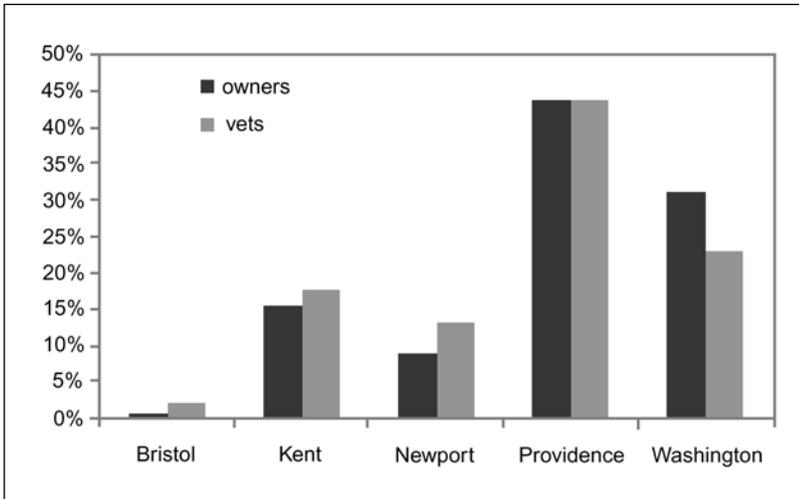
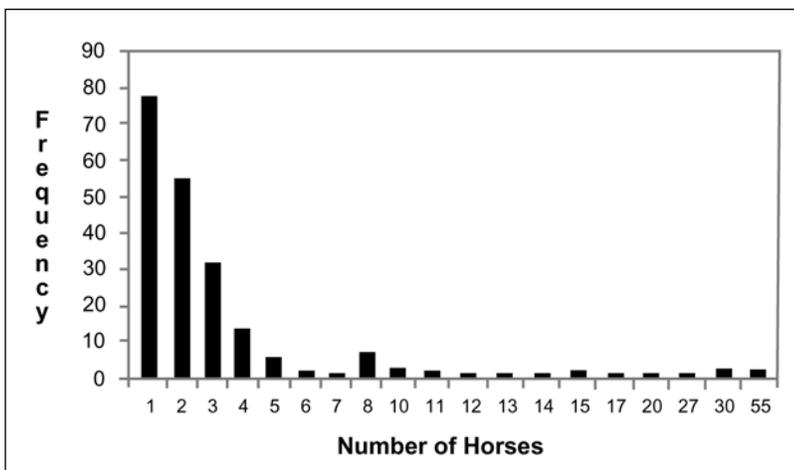


Figure 2. Percent of responses from each zip code area grouped by county for the vet survey and the owner survey.

20% OF THE RESPONDENTS ANSWERED THEY RECEIVED PART OF THEIR INCOME FROM THE SALE OF HORSES.

DESCRIPTION OF RHODE ISLAND HORSE COMMUNITY



The responses were dominated by owners with 1-3 horses (Figure 3). Of the 78 surveys (58%) that reported one horse, 61 rent stabling and 13 have their own barn. Four additionally rent space to other boarders. 62 horses are for hobby only.

Figure 3. Number of horses reported by each horse owner.

56 surveys reported 2 horses of which 17 rent a stall and 39 own their own barn. Of those horses that are privately housed (125), 80% are kept on less than 10 acres (Figure 4). The majority of these horses are located in rural or mixed suburban rural areas (Figure 5). We were not able to extract this information from those owners who board their horses since it was possible that more than one respondent from a facility answered the survey.

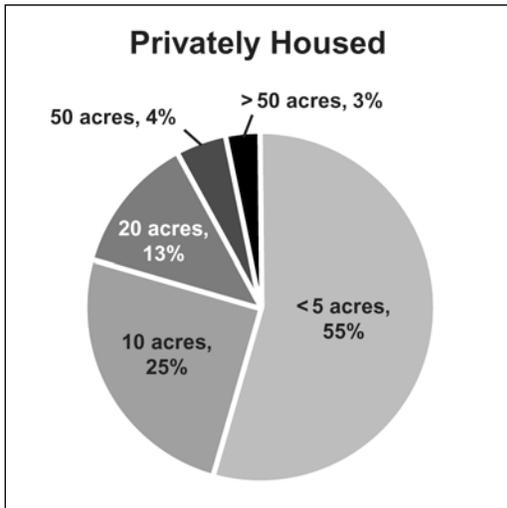


Figure 4. Percent of privately housed horses kept on number of acres between <5, 5-10, 11-20, 20-50 and > 50 acres.

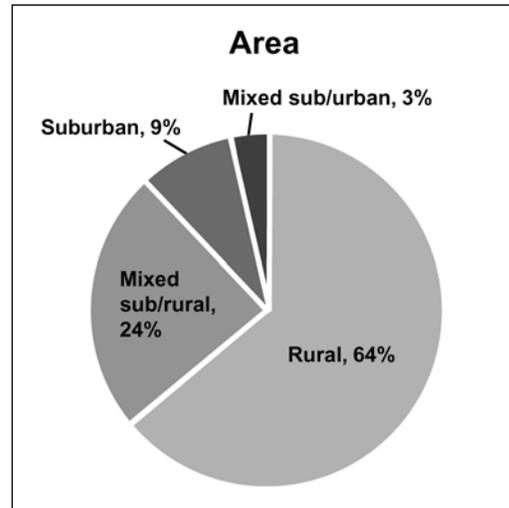


Figure 5. Percent of privately housed horses kept in different zone categories: rural, suburban and mixed. There were none in the urban category.

Sixty percent (60%) of the horse owners own their own facility and 1/3 of these rent out stalls to others. Forty percent of the owners rent stabling (Figure 6). There are 114 boarding facilities listed on websites in RI that offer rough or full board (Appendix). Currently, full board can range from \$350 to \$800/month per horse depending on facilities, area and services provided.

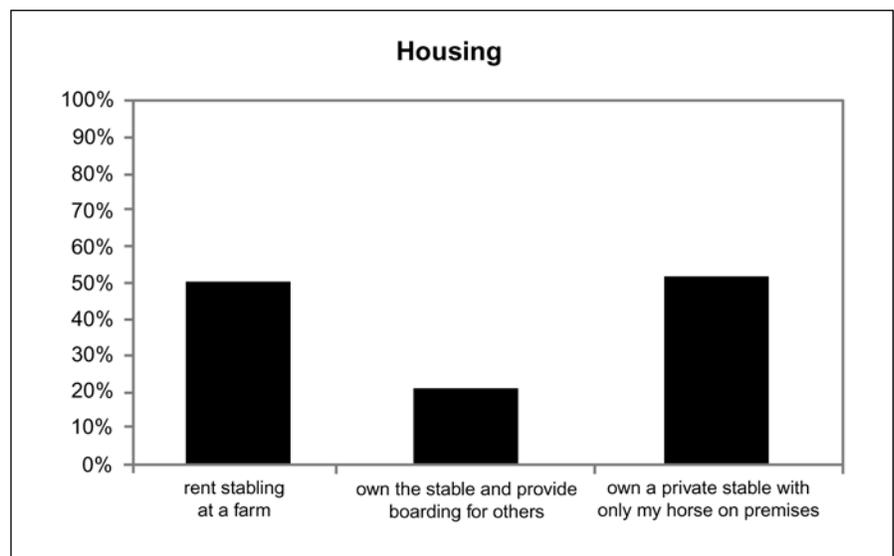
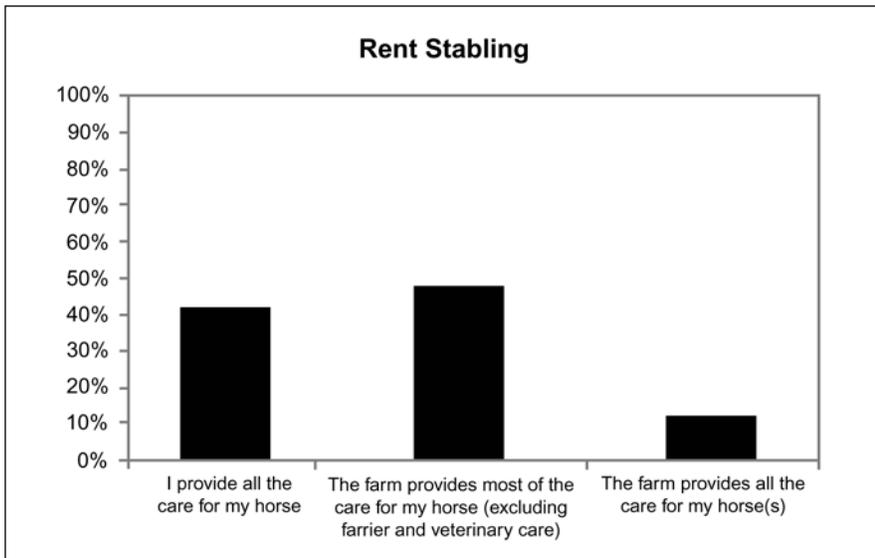
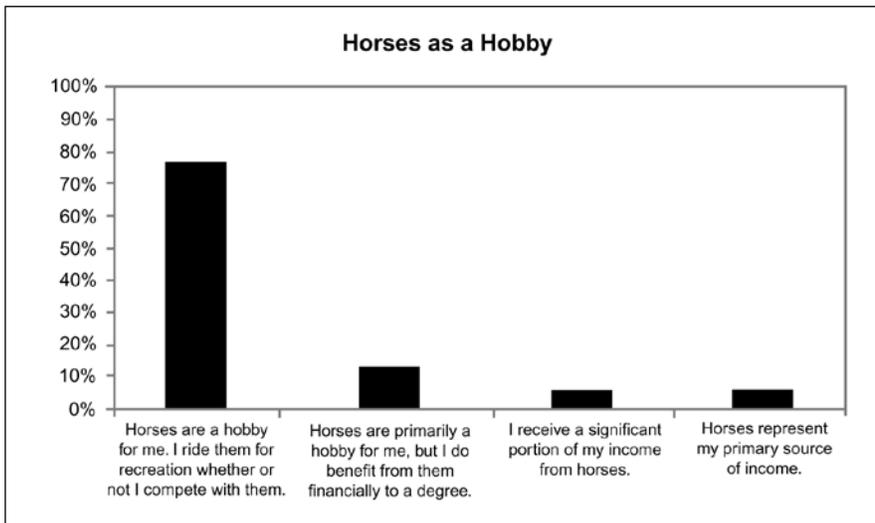


Figure 6. Percent of owners that rent space or own their own stable.



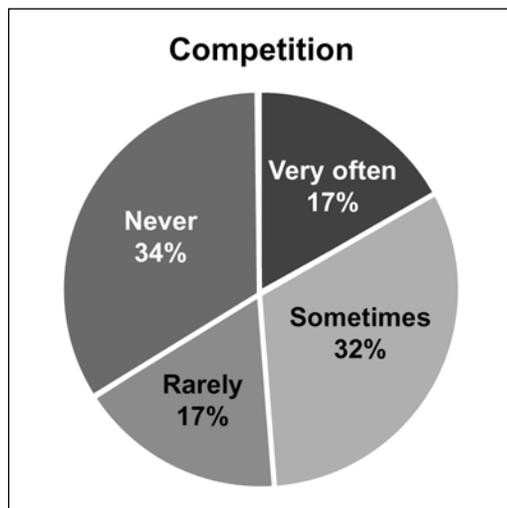
For those that rent a stall, 40% provide their own care (rough board or cooperative) (Figure 7). This is often a much cheaper alternative to full boarding, but usually does not provide amenities such as an indoor riding facility (Range from \$75-225/month). Many are close to trails and provide an outside riding area.

Figure 7. Percent of boarders who provide their own care.



The majority of horse owners use their horses as a hobby (Figure 8). Many of these join clubs for social activities related to horses. There are 6 4-H clubs, 2 pony and 11 horse clubs listed on various websites in Rhode Island (Appendix). Many of these are affiliated with the RI Federation of Horse Clubs.

Figure 8. Use of horses by owners.



Some of the horse related activities involve competition. These include activities such as breed shows, jumping, dressage, competitive trail classes and western disciplines such as reining, barrel racing and team penning (Figure 9). Some shows provide monetary prizes.

Figure 9. Percent of horse owners that compete. In many states, the revenue generated by horse shows is substantial.

Over 50% use their horses for trail riding on state owned land (Figure 10). There are 28 state owned parks (Figure 11). Many of these are open for horses although closures may occur during hunting seasons.

Figure 10. Percent of horse owners that ride on state property.

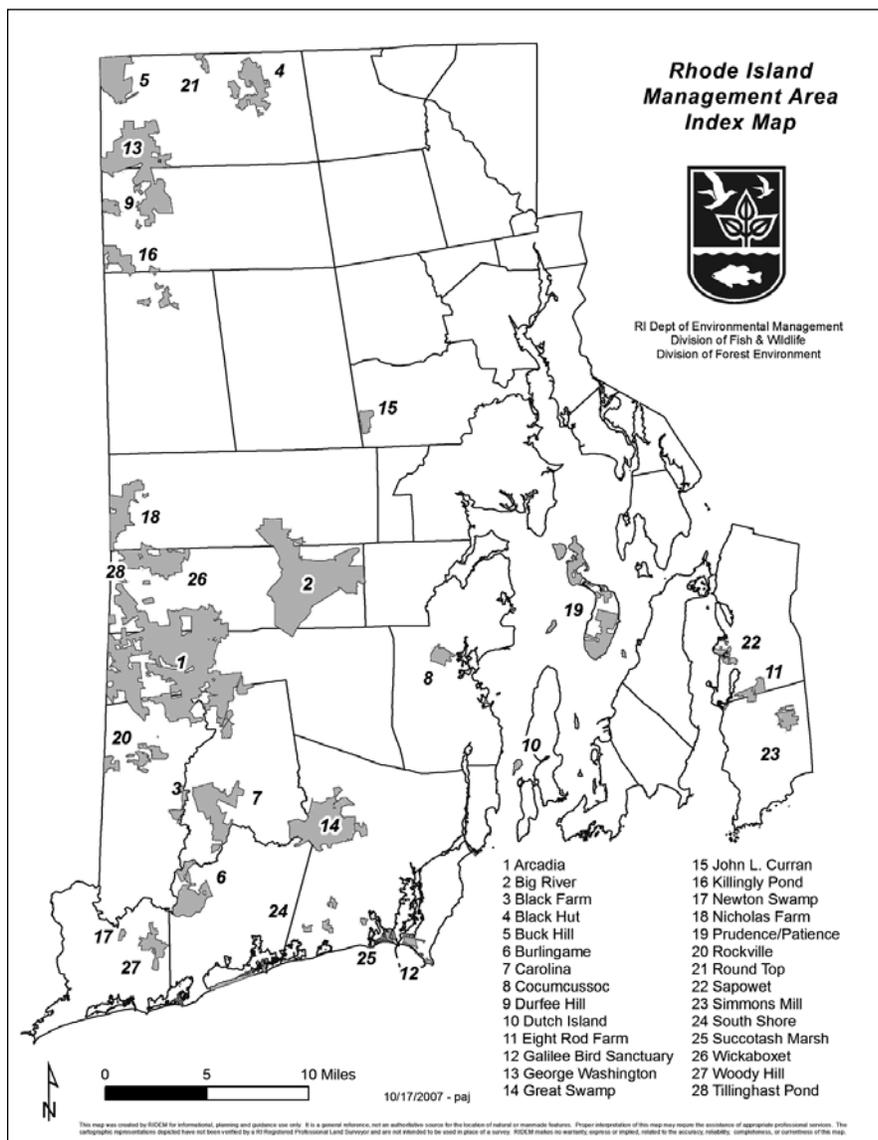
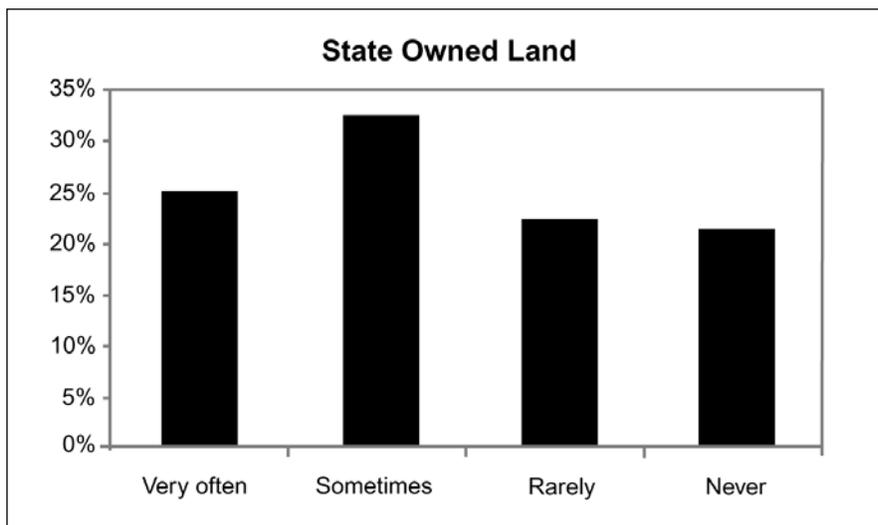


Figure 11. Rhode Island management areas

WHAT IS THE STATUS OF OUR VETERINARIAN AND FARRIER AVAILABILITY AND PERCEIVED QUALITY OF CARE?

We obtained information from 10 veterinary practices located in RI, MA and CT. There were 21 veterinarians involved in those practices. On average, they represent 380 RI horses per veterinarian. However, this does not represent the full horse load since many practice outside of RI. 49% of the New England veterinarian practices surveyed by Paradis (2006) reported more than 800 horses each.

Only 9% of horse owners felt that veterinarian care was difficult to obtain. The remainder specified that there could be a short wait, but felt it was reasonable. 71% of owners wait for the veterinarian to travel to the farm. The cost to the veterinarian for farm calls involves fuel and travel time. Farm call fees have risen dramatically with increasing fuel costs. There are a growing percentage of people who are willing to trailer to the veterinarian. As the veterinarian shortage grows in the future, many horse owners may need to trailer their horse to the veterinarian, rather than wait for the veterinarian to come to the farm. Only 10% of the owners surveyed never move their horses. The remaining 90% can move their horse, even if they do not own a trailer, they are able to borrow or obtain horse transport services as needed. Additionally, the MSPCA has an emergency ambulance service available that has the capability for transporting a downed horse to nearby veterinary hospitals.

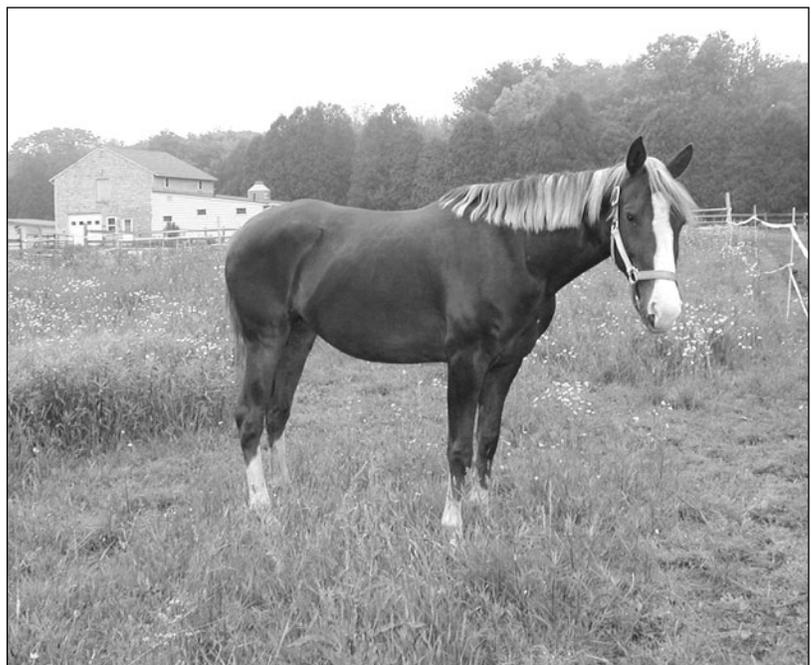
Almost 80% of the owners always use a veterinarian for routine and emergency procedures. The primary request for veterinary services is for routine shots scheduled once per year starting in the spring. This usually involves a basic check up, several recommended vaccines and if the veterinarian is trained, a dental exam and floating. Pre-purchase exams and emergency calls are a major part of the services offered all year round. However, many owners are starting to administer their own vaccines which can be mail ordered, and perform routine care of minor injuries.

Less than 5% only see a veterinarian in an emergency situation. The most common emergency events related to horses are colic, lacerations, lameness and eye problems. A common ailment increasingly affecting RI horses is the tick borne anaplasmosis infection (was previously known as ehrlichiosis) which presents with a high fever and requires antibiotics. Emergency treatment can be extremely costly and Paradis (2006) estimated that 35% of horse owners in New England carry medical insurance.

50% of the owners felt that the veterinarians provided outstanding care and 40% reported good care. Less than 1% felt that care was poor and unacceptable.

There are 26 farriers listed on local RI websites (Appendix). Farriers do not need to be certified by any organization for competency. Most farriers attend a special school and/or spend time in apprenticeship with an experienced farrier. Four farriers in Rhode Island have American Farrier's Association (AFA) certifications <<http://www.AmericanFarriers.org>>.

90% of the horse owners surveyed were able to obtain farrier care with a minimum of a wait. 6% were unsatisfied with farrier availability. 90% of these owners were happy with the quality of farrier care. The majority of horse owners surveyed have a regular scheduled appointment with the farrier.



HORSES AS AN ECONOMIC ACTIVITY

There were four major activities identified as generating income for horse owners: 65% indicated that they receive part of their income from boarding; 43% train horses; 20% sell stock and 22% receive earnings from competition. Other activities listed included teaching lessons, pony rides, equestrian writer, therapy, and summer camps.

Owners also listed using the following professional consults (Table 1):

Professional	Percent of owners
physical therapist	2.9%
massage therapist	26.9%
nutritional consultant	10.3%
saddle fitter	29.7%
chiropractor	28.6%
dentist	98.9%
behaviorist	2.9%
equine psychic	1.7%
animal communicator	10.3%

Table 1. Percent of horse owners who utilize additional equine professional services.

There are many other potential economic activities associated with horses. This survey does not attempt to calculate the overall economic value (direct or indirect) for horses in Rhode Island. Figure 12 illustrates the potential economic activities associated with horses (Benito, 1999). For many states, this economic analysis has been completed and can be found through the AHC and other reports (AHC, 1996). Future studies could examine in more detail the entire contribution of the industry to the state of RI including the economic multiplier.

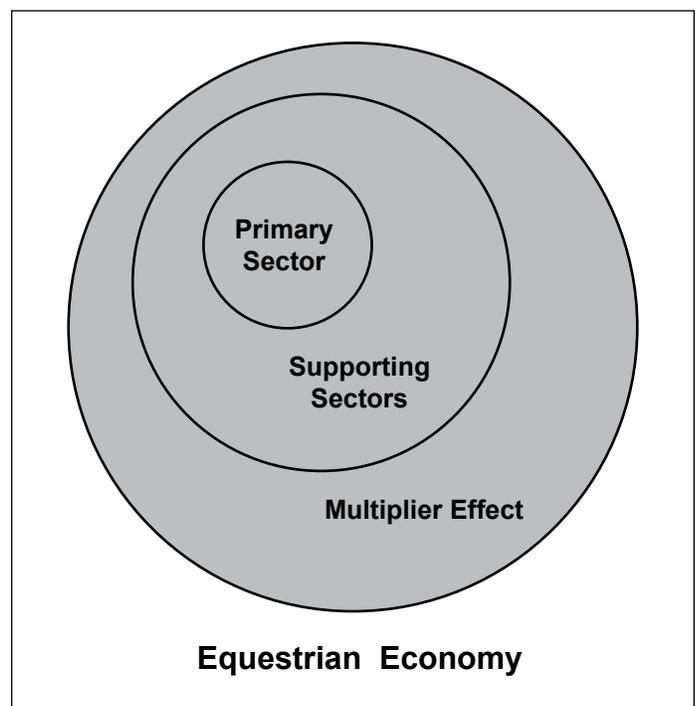


Figure 12. The production value of the equestrian economy plus its multiplier effect on the rest of the economy measures the overall economic impact of the industry (From Benito, 1999).

Supporting sectors include both backward and forward linkages. Backward linkages are those activities that support the equestrian community. Some backward linkages include: supply stores, farriers, veterinarians, feed supply stores, trainers, breeders, stables and boarding, carriage rides, trail rides, pony parties, education, therapeutic riding, trailer and truck sales and maintenance, university programs, Cooperative extension programs. Forward linkages are those activities that depend on the equestrian activities. Some forward linkages include: Horse associations, horse shows, and tourism. The Equine Affaire, an annual event held in Springfield, Massachusetts attracts over 100,000 people a year.

The largest horse event held in the region, Equine Affaire brings millions of tourist dollars to western Massachusetts with attendees from throughout the U.S. and abroad. The top five states by attendance are Massachusetts, Connecticut, New York, New Hampshire and Vermont.

Here is some additional general information about Rhode Island listings obtained through websites:

- From the owner survey, 72% of the RI horse owners use a trainer. There are 52 trainers listed on websites for RI. Training can involve horse training and/or rider training.
- There are 15 summer camp listings for RI. There are 4 barn supply shops, 16 tack shops, and 10 feed and hay listings on websites for RI. One major new tack shop opened in February 2009 in North Kingstown.
- Johnson and Wales University offers an equine and farm management undergraduate program that graduates between 17-26 students per year. The University of Rhode Island is starting a new veterinary technician program, in addition to their undergraduate animal science and animal technology degrees that will attract many out of state students, as well as provide a local program for undergraduates.

FOR MOST HORSE OWNERS, HAY IS THE LARGEST SINGLE EXPENSE.

HAY PRODUCTION

The gastrointestinal tract of horses evolved to efficiently process fiber in the form of roughage, which includes hay and pasture. Good quality hay is essential for the health of the horse. As a general rule, horses should be fed between 1.5 and 2.5 pounds of hay per 100 pounds of body weight per day. Horses should be allowed to free graze on pasture for part of the year if adequate space is available.

For most horse owners, hay is the largest single expense. Greater than 90% of RI horse owners do not grow their own hay. Most commonly, only those that reported large acreage also reported growing part or all of their hay.

The demand for horse quality hay in RI can be calculated by:

Annual hay requirement = Number of horses x average weight x 0.02 x 365 days a year

$7000 \times 1000 \times 0.02 \times 365 = 51$ million pounds of hay or 25,500 tons per year.

Total possible income: $\$400^*/\text{ton} \times 25,500 = \10.2 million dollars

*average

In the 2007 agricultural census, 351 RI farms reported hay as a crop producing over 19,042 tons of alfalfa, small grain hay, other tame hay and wild hay. However, 37% of horse owners do not buy local hay and 44% only partially use it (Figure 13). Most of the hay used by Rhode Island horse owners comes from New York, Connecticut or Canada and is shipped. It is available at feed stores or from individuals that will deliver to the farm.

The type, the amount and the quality of the hay are all important factors for nutritional value. As forage plants mature (from the vegetative stage to flower bud to bloom to seed formation), their nutritive value declines because they have fewer leaves and more stems (Undersander et al., 2002). It should also be free of mold and dust. Hay from any cutting (1st, 2nd or 3rd) can be high or low quality depending on the maturity of the forage when cut and storage conditions. Horse fed low quality hay can colic or suffer weight loss.

Part of the reason that local hay is not preferred is the perception that it is better suited for cows and sheep. The hay may be harvested late, and is variable in content or baled wet. The bales vary in weight and the price for the weight of hay is higher than average hay brought in from out of state. Very rarely is a nutritional analysis available. Few farmers specialize in hay production for horses. Production of quality hay for horse consumption is a largely untapped market for RI hay producers.

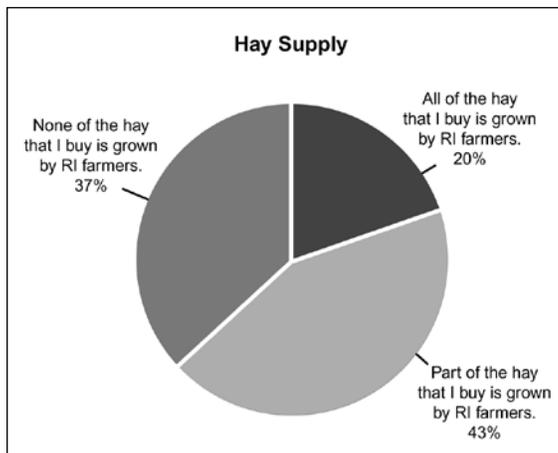


Figure 13. Hay supply.

HORSE RESCUES

There are three horse rescues in the state of Rhode Island, all 501 (c)(3) status (Appendix). All are located in southern Rhode Island and can house a total of 18 horses. On average, one request per month is received by the rescues to place a RI horse. One rescue serves as a portal for all New England Horse Rescues (New England Equine Rescues) and provides a web-based support network. More frequent requests (7/week) are received from out of state via this network.

There are no regulations or certifications governing horse rescues in the state of Rhode Island, however there are requirements for a “shelter” designation. There is also a broad set of national guidelines for Equine Rescues and Retirement Facilities provided by the American Association of Equine Practitioners (AAEP, 2007) that cover health management, nutrition, hoof care, geriatric horse care, shelter, stalls, pastures, paddocks and fencing, and euthanasia.

ON AVERAGE, ONE REQUEST PER MONTH IS RECEIVED BY THE RESCUES TO PLACE A RI HORSE.

THERAPEUTIC RIDING AND EMOTIONAL THERAPY

There are at least three therapeutic riding centers and two therapy centers that specialize in equine assisted therapy in Rhode Island.

Therapeutic riding includes equine activities used to achieve psycho-educational goals as well as to provide the individual with skills within the sport of horseback riding; whereby the rider directs the movement of the horse with whatever modifications necessary (i.e. sidewalkers, leaders, modifies equipment or modifies teaching style). Therapeutic riding provides improvement in muscle tone, balance, mobility, focus and, most importantly, the client is given the opportunity to build self-esteem and a feeling of independence. EFL (equine facilitated learning) is an educational approach that includes equine facilitated activities incorporating the experience of equine/human interaction in an environment of learning or self discovery. EFL encourages personal explorations of feelings and behaviors to help promote human growth and development. EFP (equine facilitated psychotherapy) is experiential psychotherapy that involves equines. It may include, but is not limited to, such mutually respectful equine activities as handling, grooming, longeing, riding, driving, and vaulting. EFP is facilitated by a licensed, credentialed mental health professional working with an appropriately credentialed equine professional. EFP may also be facilitated by a mental health professional that is also credentialed as an equine professional.



FLOODING AND OTHER EMERGENCIES

RI has been declared a major disaster area seven times since 1954 due to hurricanes, flooding and snow. Most consider flooding due to coastal erosion from waves and storm surge as the most devastating, however, Nor'easters, and urban flooding from storm water runoff are common sources of high water often affecting areas far away from the coast, rivers, lakes and streams. Flooding in Rhode Island is mostly a result of frequent weather events such as snow melt combined with heavy rain. Increased water runoff results in overflowing rivers and streams, and in extreme cases, dam breaches. Many floodplains are developed for housing and commercial use. Urbanization increases the magnitude and frequency of floods by increasing impermeable surfaces, increasing the speed of drainage collection, reducing the carrying capacity of the land and occasionally overwhelming sewage systems. There are 565 registered dams in the state: 16 of them are classified as high hazard (extensive damage and loss of lives), 41 significant hazard (loss of life and appreciable property damage) and 138 low hazard (no loss of life and minimal property damage). The remaining dams are too small for classification.

Almost 100% of horse owners did not feel that they were stabled in a flood zone. This is in direct contrast with the Federal Emergency Management Agency (FEMA) that considers all of Rhode Island a flood zone. At any time, there is a 1% chance that RI will be hit with a major weather catastrophe. However, not all areas are listed as high risk. Complete flood maps and evacuation routes are available from the RI EMA website: <http://www.riema.ri.gov/evacuation/hurricane_evac.php>.

EMERGENCY PREPAREDNESS

Most of the RI horse owners are not prepared for an emergency (Figure 14). 63% of horse owners do not have a designated plan in place for evacuation. 45% will try to find stabling somewhere when an evacuation is ordered, while 20% do not know what they would do.

RI HORSE OWNERS ARE NOT PREPARED FOR AN EMERGENCY.

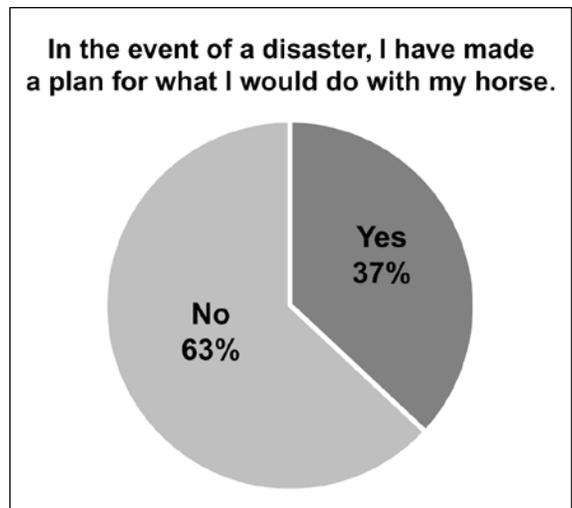
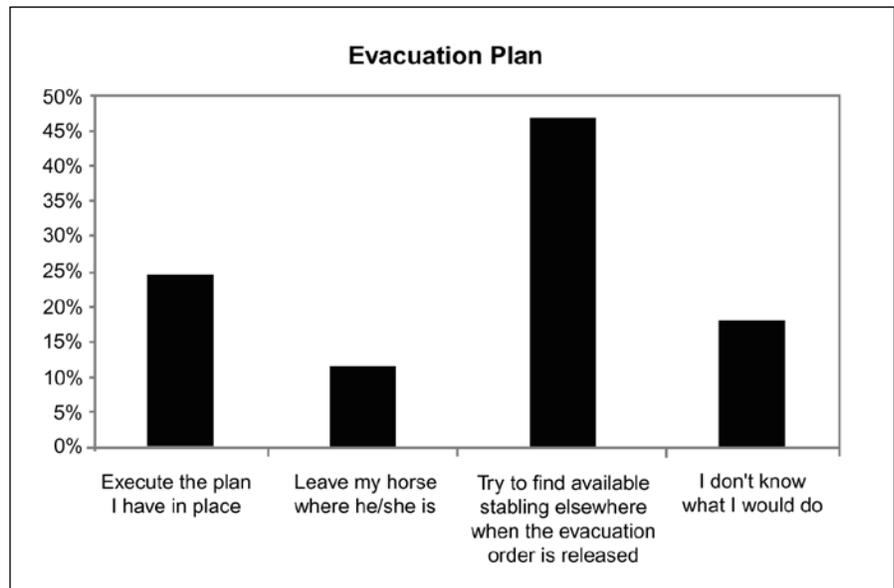


Figure 14. Do you have an emergency plan?

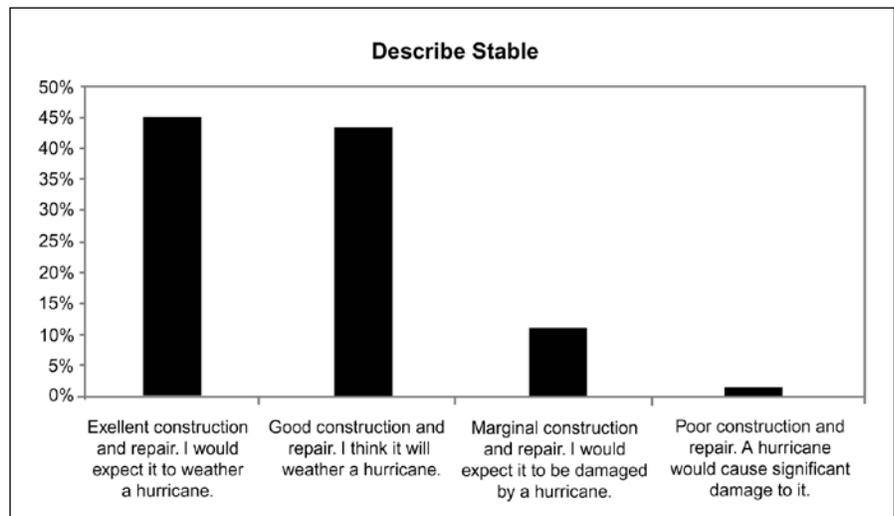
In an emergency, time is of the essence, especially with changing conditions such as road closures. Owners must have their horses ready for evacuation with proper identification, paperwork and medical supplies (Figure 15).

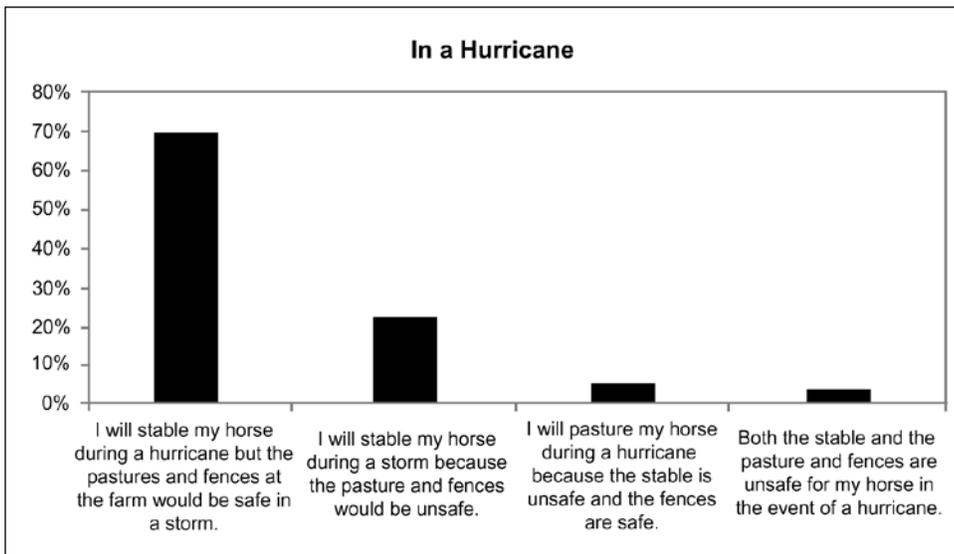
Figure 15. Evacuation plan. Are horse owners prepared for an emergency?



Most barns are considered to be solid construction by the horse owners and would weather a hurricane. However, at least 10% are considered to be unsafe (Figure 16).

Figure 16. Is the stable or fencing adequate to survive a hurricane?





When asked where they would house horses during a hurricane, most preferred inside. The quality of the fencing is more variable than the barn construction. A few owners did not feel either would suffice as a safe location (Figure 17).

Figure 17. What will you do with your horse in a hurricane?

Preparing for an Emergency



The Rhode Island Disaster Animal Response Team (RIDART) is a public/private/volunteer partnership to prepare for, respond to, and recover from emergencies affecting animals in Rhode Island. Those animals include large and small domestic animals as well as wildlife. The emergencies they could face range from storms or floods to fires and oil spills.

The team is composed of volunteers who work under the direction of the RI State Veterinarian. Training—normally free to team members—emphasizes safe handling of animals, pet first aid, effective rescuing, sheltering, and reuniting pets with their owners. The team helps assure that Rhode Islanders are as ready as possible to make the best of bad situations.

Some simple suggestions before an evacuation occurs:

- Make arrangements in advance to have your horses trailered in case of an emergency. Make sure your horses are comfortable being loaded onto a trailer. If they are not accustomed to being loaded onto a trailer, practice the procedure so they become used to it.
- Keep halters ready for your horses. Each halter should include (1) the horse's name, (2) your name, (3) your telephone number, and (4) another emergency phone number where someone can be reached.
- Prepare a basic first aid kit that is portable and easily accessible.
- Have a supply of water, hay, feed, and medications for several days for each horse you are evacuating.
- Know where you can take your horses in an emergency evacuation. Make arrangements with another horse owner to stable your horses if needed. Contact your local animal care and control agency, agricultural extension agent, or local emergency management authorities for information about shelters in your area.

More information is available at <<http://www.dem.ri.gov/animals/index.htm>>.

The North Carolina State University recommends the following:

- If your barn is well constructed leave your horses inside to minimize injury from flying debris. Example: Pole barns with posts concreted in the ground, Block Barns, Barn roofs with a history of routine maintenance built according to code.
- If your barn is poorly constructed or in poor repair, leave your horses in a naturally protected well-fenced pasture area.
 - select low area protected by rises (elevations); make certain the area will not be subject to flash flooding; avoid streams, ponds, etc.
 - keep horses away from shallow rooted trees or trees which had been damaged in previous storms.
 - keep horses away from old dilapidated structures to minimize flying debris injuries.

**BETWEEN 1999 AND 2000,
THERE WAS AN AVERAGE
OF 5,800 STRUCTURAL
FIRES IN BARNs AROUND
THE COUNTRY.**

SPECIFIC ISSUES WITH OWNERS

Many of the horse owners listed specific concerns on the survey. Below is a summary of these, with some additional information.

FIRE EMERGENCY-PREVENTION

A horse barn is an extremely flammable building. Usually constructed of wood, barns are filled with dry forage, cobwebs, dry bedding and often provide homes for birds and rodents that can harm electrical wiring. Baled hay can be its own ignition source if not properly stored. The National Fire Protection Association (NFPA) estimated that between 1999 and 2000, there was an average of 5,800 structural fires in barns around the country (Humane Society, 2005). Several of them have occurred in Rhode Island resulting in lost animals. Most barn fires are preventable. 95% of unintentional fires are due to carelessness with smoking and faulty electrical systems. In Rhode Island, there are no state mandated fire code requirements for horse barns. These are currently being developed but many horse owners are concerned about the feasibility of installing expensive fire suppression systems in their backyard stables.

NEED STIFFER LAWS FOR ABUSE

Horse abuse, is intentional physical abuse of an equine animal. However most cases are actually neglect. The fact that neglect cases outpace abuse cases by such a staggering number nationwide suggests that emphasis in terms of education and prevention be placed on neglect intervention first, and then abuse intervention.

The following laws are on the books in RI Title 4, Animals and Animal Husbandry), Chapter 4-1, Cruelty to animals states:

§ 4-1-2 Overwork, mistreatment, or failure to feed animals - Shelter defined. - (a) Whoever overdrives, overloads, drives when overloaded, overworks, tortures, torments, deprives of necessary sustenance, cruelly beats, mutilates or cruelly kills, or causes or procures to be so overdriven, overloaded, driven when overloaded, overworked, tortured, tormented, deprived of necessary sustenance, cruelly beaten, mutilated or cruelly killed, any animal, and whoever, having the charge or custody of any animal, either as owner or otherwise, inflicts cruelty upon that animal, or willfully fails to provide that animal with proper food, drink, shelter or protection from the weather, shall, for each offense, be imprisoned not exceeding eleven (11) months, or be fined not less than fifty dollars (\$50.00) nor exceeding five hundred dollars (\$500), or both.

How to Fireproof Your Horse Barn

<<http://www.equishopper.com/t-article-FireproofYourBarn.aspx>>

1. Start outside. If you live in an area where wildfires are a possibility, make sure you clear a 50-foot firebreak around your barn. Remove brush, trees, tall grass and debris.
2. Protect against lightning. Install a grounded lightning rod system to protect your barn in electrical storms.
3. Try to have both a water supply and a power supply installed outside your barn. Keep a hose attached to your external water supply.
4. Install smoke detectors. Detectors and alarms that sense heat and smoke can save critical time if a fire does start. Make sure you check them regularly (at least twice a year). You may also wish to connect the smoke alarms with a loud, external siren or an alarm that will sound somewhere it can be heard if no one is in the barn.
5. Store hay and combustibles like shavings in a separate building. Some insurance companies require hay to be stored in a separate building, so check with your agent.
6. Make sure that the hay you store is cured properly and that it's kept dry. Wet hay can start fires through spontaneous combustion.
7. Don't use extension cords. If you really need to, use an industrial-grade cord and don't overload it.
8. Check electrical cords for damage, and replace any that may have been chewed by mice or squirrels.
9. Consider installing a sprinkler system. While the initial investment may seem high, check with your insurance agent to see if he or she offers discounts for barns with sprinklers. Some may cut your annual premium by as much as 50 percent.
10. Place fire extinguishers within reach. Place them every 40 feet or consider keeping one at each entrance, in the tack room and near feed storage. Make sure they're charged and protected from freezing.
11. Keep your barn clean. Dust and cobwebs are fire hazards, as are oily rags and paper towels.
12. Cage all electric light fixtures.
13. Keep a halter and lead rope on every stall door. Consider marking each with glow-in-the-dark paint or reflectors.
14. Ban smoking in your barn (and within 20-30 feet, at least). Post "No Smoking" signs and enforce the ban.
15. Post directions to your barn next to the phone.
16. Keep important numbers where you can find them quickly and have an emergency plan in place—along with a plan for how emergency equipment could access your barn most quickly.

Ask your local fire department to do a walk-through of your barn to point out other fire-prevention steps you can take. If fire does break out, keep your cool—and your priorities:

- Get people out of your barn.
- Call the fire department.
- Get your horses out if you can do so without risking human lives.
- Use fire extinguishers and/or hoses—but only if you can do so safely.
- Step aside when the fire crew arrives and let the pros handle it.

(b) Every owner, possessor, or person having charge of any animal may upon conviction of a violation of this section be ordered to forfeit all rights to ownership of the animal to the animal control officer of the city or town in which the offense occurred or to a humane society which owns and operates the shelter which provided the subject animal shelter subsequent to any confiscation of said animal pursuant to this section.

(c) Shelters means a structure used to house any animal which will provide sufficient protection from inclement elements for the health and well being of the animal.

Abuse cases are extremely rare in Rhode Island. However, the wording of the above is highly interpretative and a new effort is currently underway to make these laws more enforceable (RI Large Animal Welfare (RILAW)). The RISPCA commonly responds to cases of neglect and/or ignorance. Two recent cases in Lincoln and West Greenwich (2009) have drawn attention to horses starving or so lacking in veterinary care that their keepers were charged with animal cruelty. Local educational opportunities for horse owners are an important component of good horse care that can improve this situation, as well as increased oversight from the RISPCA.

TRAFFIC LAW ENFORCEMENT

As more horse owners are forced to ride on side and major roads, there is evidence that drivers do not remember (or know) the laws governing horses in traffic. These are contained in the General Laws of RI, Chapter 22, Title 4, Chapter 15.

Each operator of a vehicle approaching a horse on a public highway shall reduce speed, proceed with caution and stop if necessary to avoid endangering the equestrian, or frightening or striking the horse. An operator violating the provisions of this section shall be guilty of a civil violation and, upon conviction, shall be fined not more than twenty-five dollars (\$25.00) for the first offense nor more than fifty dollars (\$50.00) for second or subsequent offenses. (31-22-25 Approaching horses).

No operator of a vehicle in the vicinity of an equestrian and horse may blow a horn, or cause loud or unusual noises, in a manner to startle or frighten the horse. An operator violating the provisions of this section shall be guilty of a civil violation and upon conviction shall be fined not more than twenty-five dollars (\$25.00) for the first offense nor more than fifty dollars (\$50.00) for second or subsequent offenses. (31-22-26 Noise in vicinity of horse).

Most horse riders know that these laws are violated frequently with the potential for causing injuries to all involved. Drivers need to be better educated about the dangers of frightening horses and the fines need to be more serious.

LACK OF SAFE RIDING AREAS/ LACK OF RIGHT OF WAY AND ACCESS TO TRAILS

In a state as small as Rhode Island, land available and easily accessible for horseback riding is often difficult to find. There are 120,462 acres preserved as open space, although some is reserved as private land trust. The Greenways Alliance of RI <<http://www.rigreenways.org>> is a major advocate group for preserving access to trails. The major trail system in RI is the North-South Trail (NST) system, part of the East Coast Greenway. When complete, the East Coast Greenway (ECG) will be a 2,600-mile corridor along existing and planned trails in a continuous city to city greenway on the East Coast. The NST is a 75-mile multiple-use trail in western Rhode Island connecting eight Department of Environmental Management areas. When not in the forests of these management areas, the trail is mostly on low-traffic scenic town roads. The NST passes through historic villages and small family farms, one-room school houses, tiny walled cemeteries and quaint country churches.

Some local clubs have also produced guides for their members. It is important for the horse owners in RI that land is set aside for equestrian activities.

COST OF OWNERSHIP: RISING PRICES OF GRAIN, HAY AND SHAVINGS

Economic laws of supply and demand favor high prices for hay in Rhode Island. Land values are high, so, many farms have undergone development, reducing the available acreage that could be dedicated to growing hay. The result is that an increasing number of horses that are dependent on hay drives the local price of hay up. At a certain point it is profitable to import hay from other states or Canada.

Locally grown hay is often perceived (accurately or not) as inferior in quality to hay produced elsewhere. Local hay growers should see this as an opportunity to market their hay. By attracting horse owners to their hay, they should be able to provide a good quality product at a lower cost than imported hay due to lower shipping costs. RI hay producers should therefore have a higher profit margin because cost of producing hay should not vary much geographically, but transportation costs will vary.

Average cost of horse ownership in RI (based on 1000 lb horse) in 2008

Item	Unit	Price	Quantity	Total/Year
Hay*	bale (35 lbs)	\$2-10	208	\$416-2,080
Grain**	bag	\$4-20	36	\$144-720
Salt	block	\$10	2	\$20
Boarding	month	\$0-800	12	\$0-9,600
Vet	year	\$360	1	\$360
Farrier	8/year	\$25-350	8	\$200-2,800
Bedding	1/week	\$5-8	52	\$260-416
Insurance	year	\$150-\$300	1	\$150-300
Dentist	1/year	\$85	1	\$85
Tack/Supplies	blankets, pads	\$500	-	\$500
Maintenance	-	\$500	-	\$500
Other (lessons, shows, training, magazines)	-	\$350	-	\$350
Total Yearly Cost (range)				\$2,985-17,731***

*.02 lbs/1000 lbs

**0.5 lbs/1000 lbs

***This provides a range from the cheapest to the most expensive options. There are many combinations possible to get an intermediate amount (Equine Facts).

The price of grain has been steadily increasing, partly due to inflation, but partly due to supply and demand for corn. Corn-based ethanol production has been a competing force with livestock feeding for the supply of corn that is produced. As corn prices rise, other cereal grains are being used as concentrate sources for horses and other animals, so their prices also rise. Though only a relatively small amount of horses are fed corn as a main concentrate source, corn that would be used to feed cattle is now being used to make fuel. Therefore, other grains are being used to feed cattle, a much larger market nationally than horse feeds, thus raising the price of the other grains such as oats. It should be noted that most livestock producers select concentrates based on performance of their stock and cost. They do not have a preference of feed type other than what is the most economical means of feeding their animals to meet

production expectations. Horse owners typically do not feed based on production or economics, and choose feeds based on previous experience, recommendation of other horse owners, recommendations of feed store personnel, recommendations of other equine professionals (rarely a nutritionist—only 10.3%), or simply their own preference over what they think their horses will like. These methods are often less than scientific and horse owners may be limiting their choices of feeds by adhering to them.

Shavings are the most common bedding for use with horses in RI. Recently, the cost of shavings has been increasing. Most shavings are produced in areas where timber harvesting occurs; therefore transportation costs are a large factor in Rhode Island. Additionally, competition for shavings, which are a by-product of lumber production, has resulted in shorter supply and therefore increased cost. Competition for shavings is most evident in the market for wood to be compressed into wood pellets to be used as a fuel. The introduction and use of wood pellet stoves has coincided with the greatest increase in the price of shavings. Alternative bedding is available, but either due to cost or unfamiliarity with them, they are rarely used. Bedding alternatives are sawdust, sand, peat moss, straw, mulched leaves (of non-toxic trees), peanut hulls, shredded newspaper, and wood pellets. All have advantages and disadvantages, but all have been used successfully. It should be noted that shavings decompose relatively slowly when composted with horse manure.

Although no income data was requested with the RI survey, the American Horse Council surveys indicated that 46% of horse owners are in the mid-income range of \$25,000-75,000. Rising costs will affect the ability to maintain horses. Horse rescues nationwide are struggling to keep pace with the horses that are being surrendered due to economic and other reasons.

SHORTAGES OF FARRIERS AND VETERINARIANS

Several studies cite a predicted shortage of veterinarians in general over the next several years. In particular, shortages of large animal veterinarians will be seen. With salaries of large animal veterinarians being significantly less on an annual basis than their small animal veterinarian counterparts, with unpredictable hours worked by large animal veterinarians, with the high physical demands of large animal practice, and with often poor working conditions encountered in large animal practice, it is not difficult to understand why this trend will continue. Unfortunately, many of the aforementioned reasons that people may not be pursuing a career as a large animal veterinarian are things that cannot easily be changed. We would predict that due to the effect of supply and demand, that horse owners can expect the cost of veterinary care to increase significantly in the near future as well as availability of local veterinarians.

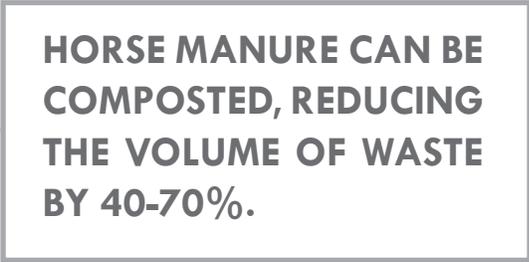
In Rhode Island, there are few full-time farriers. Many of those listed are part-time farriers. On average, each farrier carries between 100-650 clients. The potential exists for qualified farrier shortages in the future as many are nearing retirement age. Although most recommendations on farrier quality are passed informally between horse owners, there is a need for some criteria to measure professional capabilities as new farriers come on-line.

**ON AVERAGE, EACH
FARRIER CARRIES 100-
650 CLIENTS.**

MANURE MANAGEMENT

Horse manure includes both solid (60%) and liquid (40%) portions of waste. On average a horse produces 0.5 ounces of feces and 0.3 fluid ounces of urine per pound of body weight per day (Wheeler and Smith Zajackowski, no date). Soiled bedding removed from the stall may account for another 8-15 pounds per day of waste. Horse manure is considered a valuable resource for use as fertilizer; however, the high nitrates found in horse urine have the potential to contribute to pollution from runoff.

Proper manure management is a growing problem as more and more horses are being kept on small acreages. Additionally, urban sprawl into areas with established horse farms is occurring. Many horse owners are unaware of the problems that improper manure management can cause, including attraction of vermin and insects, contamination of water supplies, and adding excess nutrients to soil. Horse manure can be effectively composted and used on the horse farm or for other local farms, golf courses and nurseries. Composting reduces the volume of waste by 40-70%. State and Federal agencies are available to assist farmers with managing manure. There are some funds available to assist farmers, but certain criteria to attain farm status must first be met. Also, unless a farm meets the criteria of being considered a farm according to RI Law, the farm may not be protected by the provisions of the RI Right to Farm Act which, in general terms, protects the farmer from complaints of noise or noxious odor if generally accepted farming practices are utilized.



**HORSE MANURE CAN BE
COMPOSTED, REDUCING
THE VOLUME OF WASTE
BY 40-70%.**

INJURIES

Horses are large heavy animals that can travel at speeds of over 40 mph. Recreational horse riding is a sport with a high injury rate. An estimated 102,904 people (35.7 per 100,000 population) with non-fatal horse related injuries were treated in American emergency department between 2001-2003 (Thomas et al., 2006). Most patients were injured while mounted (66.1%), commonly from falling. When not mounted, the most common injury mechanism was being kicked. The most common diagnoses were contusions/abrasions and fractures. For each year studied, an estimated 11,502 people sustained traumatic brain injuries.

Children are most at risk. According to the Children's Safety network (2005), from 1999-2002, there were 76 fatal injuries to youth under 20 years old. The severity of youth equestrian related injuries is greater than any other sports related injuries.

Horse related injuries are a public health concern not just for riders but for anyone in close proximity to horses. Prevention programs should target riders and caregivers to promote helmet use and educate participants about horse behavior, proper handling of horses and safe riding practices. There is no such thing as a bomb proof horse (Williams, 2004).

CONCLUSIONS

The results from this survey bring to light many important considerations for both the state of Rhode Island and the horse owners. Equestrian activities are an important hobby and sport activity. The total numbers make it one of the largest livestock categories in RI, higher than the 5085 cattle and calves estimated from the USDA (2009), yet the public infrastructure to support this sector may be insufficient. With the estimate obtained through this survey of between 6814-7301 horses, the density of horses in Rhode Island (6.5-7 horses/mile²) is among the highest in the country. By comparison, Connecticut which ranks second in the nation in horse density, reports 10 horses/mile² (AHC as reported on University of Connecticut website).

Several details emerged from the owner survey concerning present and future needs. Owners cited the lack of affordable quality local hay, rising prices of grain and bedding and need for safe riding areas. As more rural land is lost to suburban development, there is a concern that horses and riding will be closed out of many areas. Since many riders are now forced to ride on major roads, there is a great deal of concern over safety issues since many motorists are not aware of the laws protecting horses and riders and the dangers involved with sharing the road.

It was difficult to obtain simple information on veterinarians, farriers, trainers, boarding facilities and horse clubs. Information is spread among many websites and is not kept up to date. There is very little information on qualifications for farriers and trainers. Veterinarians are the only professionals who are required to be licensed to work on horses in RI. Farriers, dentists, massage therapists, chiropractors, etc are all unlicensed professionals. Due to this fact, there is variability in the skill level of these professionals. Some of the professionals use terms such as “certified” by some organization (which implies at least some formal training) but certification is not recognized as having any credibility in RI. Certification by an organization is in and of itself of very little value unless such certification means that the individual being certified is held to some generally accepted and recognized industry standard. Also, the use of unlicensed professionals may also result in failure of people who are damaged as a result of the actions of these professionals to collect any type of damage claim against them.

Given the difficulty in maintaining a non-profit based on private donations in an increasingly negative economic environment, the three rescue operations could possibly enhance their operations by coordinating with the RISPCA and each other. Other partnerships could be formed such as with RI DEM (such as RI DART); open space and trail organizations, university academic and extension programs. General education about horses, health, riding, manure maintenance, barn safety and emergency preparation is sparse, especially for new horse owners. Fully understanding the substantial economic and emotional commitment to a horse before purchase could significantly reduce the number of neglected and abused horses in the state.

With the predicted shortage of large animal veterinarians, a new model for interaction with veterinarians is needed. In some cases, better education of owners will aid in dealing with emergencies. For instance it may be more prudent to transport directly to the large animal hospital after consulting with the veterinarian rather than wait additional hours for the farm call. The availability of trailers and willingness to transport horses to a veterinarian could be substituted for routine farm visits. The use of veterinary techs could expand the veterinarians reach as well as provide jobs for the graduates of the new URI veterinary tech program.

Horses and horse related businesses play major roles in the state of Rhode Island. This survey was not designed to provide comprehensive economic analysis or projections for the industry but there appears to be substantial economic activity in this sector and great potential for economic growth through support services and hay. Linking horses to the need for open space and farms make this sector important to preserving cultural heritage and boosting the tourism industries.

There is a real need in Rhode Island to develop working relationships and partnerships between horse owners, the state universities and the private sector to begin to address these issues and create a “horse-friendly” state as well as prosperous equine industry.

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APPENDIX

VETERINARIANS (PRACTICING IN RHODE ISLAND IN 2006)

Brooklyn Canterbury, Canterbury, CT
Eggleston Equine LLC, Woodstock, CT
Ernie Finocchio, Providence, RI
Laura Carmel Spengler, CT
Marshalls Vet Service, North Smithfield, RI
Massachusetts Equine Clinic, Uxbridge, MA
New England Horse Care, North Smithfield, RI

North Stonington Veterinary Clinic, N. Stonington, CT
Oceanside Equine Associates, Wakefield, RI
Sarah Reynolds, Johnston, RI
Sharon Doolittle, Providence, RI
South Shore Equine Clinic, Plympton, MA
Steven Morrone, North Stonington, CT

FARRIERS LISTED AS SERVING RHODE ISLAND (FROM VARIOUS SOURCES)

David Ballou	Joe Hackett	Tim O'Brian	Diedre Sharp
Mark Blionasz	Daryn Jackman	Mike Paparo	Tetrault
David Cotrone	Todd Kenny	Abby Poland	Sean Travers
Joel Crane	Matt Lewis	Jeff Rayner	Mike Windsor
Ralph Dibautista	Garrett Maloney	Jack Renaud	Mike Zirolì
Frank Fallon	Dave Marshall	Ken Salisbury	
Phillis Gregerman	Rocky Meyers	Corey St. Peter	

RHODE ISLAND HORSE RESCUES

Horse Play: <http://www.hptrc.org>
New England Equine Rescue (NEER): <http://www.newenglandequinerescues.com>
The Santana Center for Equine Outreach and Education: <http://www.thesantanacenter.org>

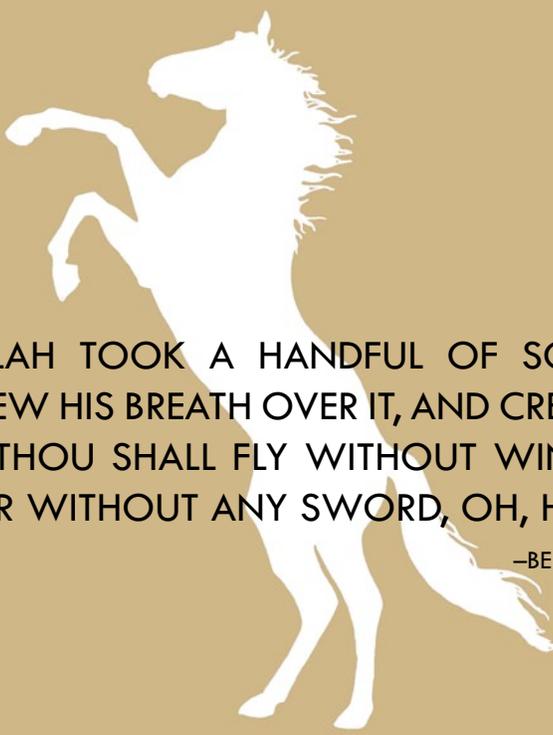
RHODE ISLAND EQUESTRIAN CLUBS AND ASSOCIATIONS

Aquidneck Island Horseman's Association
Bay State Trail Riders Association (MA based)
New England Mini Horse Society
New England Saddlebred Association
RI Arabian Horse Association
RI Federation of Horse Clubs
RI Horseman's Association
RI National Barrel Horse Association
RI Vintage Equestrians
West Greenwich Horseman's Association

PONY CLUBS
Southeastern New England
Watershed
4-H CLUBS
4-Ever Amigos
Aquidneck
Cornerstone
East Rider
Rhode Rider
The RI Driving Club
Wolfridge

BOARDING BARNS IN RHODE ISLAND (AS LISTED FROM VARIOUS SOURCES)

Alpine Stables, Cranston
Almost Paradise Stable, Pawtucket
Angels on Horseback, Exeter
Black Forest Farm, Foster
Black Walnut Farm, Wickford
Blackhorse Farm, Foster
Bluemead Farm, Barrington
Blue Water Equestrian Center, North Kingstown
Bonnieedale Farm, North Scituate
Breezy Hill Farm, Chepachet
Brookside Equestrian Center, North Smithfield
C and L Staples, Warwick
Canterbury Farm, Kingston
Carolina Equestrian, Carolina
Castle Brook Farm, Johnston
Cherry Croft Farm, Richmond
Clouds Hill Farm, East Greenwich
Cooper Hill Farm, Glocester
Conochet Farm, Hope Valley
Cornerstone Farm, Foster
Dane Farm, Barrington
Dapper Dan Stables, Warwick
Delante Stables, Lincoln
Double C Farm, Exeter
Faith Hill Farm, East Greenwich
Fancy Hunter Ponies, Scituate
Four Corners Equestrian Center, Tiverton
Four Star, Berkeley County
Four Hoof Farms, Cranston
Gemma Racing Stables, Cranston
Glen Farm Equestrian Center, Portsmouth
Glen Farm Cooperative Barn, Portsmouth
Green Field Farm, Coventry
Gold Dust Cutting Horses, Chepachet
Heritage Equestrian Center, East Greenwich
Hidden Oaks Showjumpers, Exeter
Hidden View Farm, Carolina
Hill Top Equestrian, Foster
Hollywood Farm, North Scituate
HoofPrint Farm, Exeter
Hunter Ridge, Charlestown
In Stride, Chepachet
Irons Gate Stable, Wakefield
Jenny Gordon, Wakefield
Johnson's Farm, Pascoag
Journey's End, Scituate
JS Family Ranch, Pascoag
Kathleen Thibeault, Lincoln
Klitzner Farm, Hope-Cranston
Lady Raven Equine, Tiverton
Lakeview Stables, Richmond
Lame Acres and Kenny Hill Farm, Hope Valley
Ledgestone Farm, Tiverton
Lend A Hand Horse Farm, Cranston
Lepore Equestrian Center, Lincoln
MacKinnon Equine Marketing, Coventry
Majorca Farm, Tiverton
Malbone Farm, Newport
Meadow Watch Farm, North Kingstown
Millstone Acres Farm, Harrisville
Morgan Adair Dressage LLC, Westerly
N. White, Tiverton
New Deal Farm, Exeter
Nordland Farm Equestrian Center, Foster
Ocean State Hunt Club, Coventry
Paramount Stables, North Kingstown
Newport Equestrian, Middletown
Paramount Stables, North Kingstown
Phoenix Rising, North Smithfield
Pilot Point Farm, Chepachet
Pine Bo Acres, Scituate
Pine Ledge Stables, Smithfield
Pine View Farm, Scituate
Pondview Equestrian Center, Pascoag
Ponies to Go Farm, Middletown
Ponies as Partners, Middletown
Prospect Hill Farm, Lincoln
Daren Rathbun, West Greenwich
rDr Ranch, Foster
Red Rock Farm, Foster
Rising Rock Farm, Chepachet
Robin Hollow Farm, West Greenwich
Roseland Acres, Tiverton
Rustic Rides, Block Island
Sakonnet Equestrian, Tiverton
Sandy Point Stable, Middletown
Serendipity Stables, Richmond
Shamrock Farm, Scituate
Side Hill Farm, Hopkinton
Smithbridge Stables, Wakefield
Smithfield Equestrian Center, Chepachet
Spring Brook Farm, Cumberland
Spring Hill Farm, East Greenwich
Stepping Stone, West Greenwich
Stonebridge Stables, Lincoln
Stone House Farm, Scituate
Summer Hill Farm, Lincoln
Summit Dressage, Coventry
Sundance Stables, Chepachet
Sunnywood Stables, West Greenwich
Sunrise Stables, West Greenwich
Tavern Stables, North Kingstown
The River's Edge Equestrian Center, Foster
Thell Arabians, Greene
Tower Hill Equestrian Center, Saunderstown
Turning Point Dressage, Foster
Twin Willow Stables, Johnston
Westwind Farm, Lincoln
Willow Valley Farm, West Kingstown
Winsor Farm Sales, Scituate
Whispering Wind Farm, Chepachet
Woodwind Farm, Hope



“AND ALLAH TOOK A HANDFUL OF SOUTHERLY
WIND, BLEW HIS BREATH OVER IT, AND CREATED THE
HORSE... THOU SHALL FLY WITHOUT WINGS AND
CONQUER WITHOUT ANY SWORD, OH, HORSE.”

—BEDOUIN LEGEND