Generally Accepted/Normal Agricultural Practices and Best Management Practices
Keeping backyard horses

Presented by the Halifax Agricultural Commission

This Document is meant to be used a guide for keeping Horses

"Halifax is a Right to Farm Community"

With that comes a certain responsibility to our animals which you will find in these Best Management Practice Articles. Along with that there are the additional responsibilities we have in regards to our town, and our neighbors.

Please be respectful of all.

Before you go out and buy your horse, some planning & Education is in order: Successful horse ownership requires a certain amount of knowledge and experience, basic horsemanship experience is assumed by this commission and a complete "how to" for horse ownership is beyond the scope of this report

The first thing you must do before building your barn and acquiring your horses is to check with your local building inspector, zoning board, conservation commission, and board of health to determine what building codes and By-Laws apply to you and zoning limits your town has regarding livestock animals.

Horses are large animals – and with this comes some inherent risks and dangers. Planning your farm and educating yourself are HIGHLY recommended prior to buying or owning a horse.

1) **Shelter & Space:**
   Horses require "adequate" shelter, and a turn out area. Adequate shelter can be a run-in shelter or a fully enclosed stall. For an enclosed stall, a horse should be able to stand, turn around and lay down. Consider height of the shelter or barn to be in correlation of the needs of the horses. A horse should be able to lift their head without being obstructed from the ceiling.
   Horses need shelter to escape from cold and wet weather. Consider the intended use of your horse, breed, size, exercise requirements, access to trails and size of your property when designing and building an appropriate barn, pasture, run-in shelter, paddocks and or riding ring.

   Safety is the number one priority to be considered. Unprotected light bulbs, doors with sharp edges and slick flooring can cause accidents. You will also want to consider location, climate, zoning, water, ventilation, feed storage, tack storage and financial costs. It is easy to see that there are quite a few factors to consider before a horse ever steps onto your property.

2) **Fencing**
   Always construct safe, adequate fencing to keep horses in. Make sure the fencing can withstand abuse from horses, is visible and durable. Perimeter fencing should be of sufficient height to keep horses contained and serve as a barrier to uninvited guests.
   Common materials are: Wood, PVC-coated lumber, Metal pipe, High tensile coated wire and electric.
   All fences should be at least 4 feet in height.
   For foals and/or miniature horses, and some ponies, the bottom rail should be set at an appropriate height as to discourage smaller or curious animals from rolling or getting caught.
   DO NOT USE Barbed Wire

3) **Mud management**
   Muddy conditions will pose a challenge for your operation.
   Mud can:

• Transmits bacterial and fungal diseases. Examples are thrush (affects the frog of the hoof), mud fever (crusty scabs on lower limbs), rain scald (same condition on upper body), sand colic (ingesting dirt and sand when feeding), low body temperatures (burn more calories).
• Create unsafe footing
• Provide a breeding ground for flies
• Make chore time unpleasant
• Increase polluted runoff

Best Management Practices for Controlling Mud & Manure:

The best management strategy for controlling mud is prevention. Reducing the amount of rain that runs through your animal yard will reduce mud and polluted runoff.

☒ **Install Roof Gutters and Downspouts to direct water away from paddocks and animal areas.**

☒ **Try to Use Sacrificial Areas if possible in springtime**

☒ **Install Firm Footing:** Mud often forms at barn entrances, gates, and feed/watering areas. In these high traffic areas, using stone dust, gravel or rubber mats allows water to drain while stopping the mud from emerging through. More info here: https://ag.umass.edu/sites/ag.umass.edu/files/fact-sheets/pdf/horse_footing_materials_15_05.pdf

☒ **Remove Manure:** Regular removal of manure also greatly reduces the amount of mud that develops. Regular manure removal will help reduce your horse's parasite load as well as reducing flies and insects. The manure you pick up can be composted and reapplied to your pastures during the growing season.

☒ **Rotate Watering and Feeding areas**

Recommended Links for Mud Management and pasture management

https://ag.umass.edu/crops-dairy-livestock-equine/fact-sheets/mud-management-for-horse-operations

http://www.mass.gov/eea/agencies/massdep/water/watersheds/water-quality-and-horsekeeping-mud-and-pasture-managemen.html

4) **Manure options**

Composting horse manure is an excellent manure management technique which has these benefits:

☒ The composting process reduces the size of your manure pile by about 50 percent!
☒ Heat generated by composting kills worm eggs, fly larvae, pathogens and weed seeds.
☒ Composting reduces flies, runoff and odors
☒ Composted manure is a valuable addition to your pastures, garden, or yard. And, if you can't use it on your own property, "horseless" neighbors are usually glad to take it.

2. Remove or have the manure removed by a commercial hauler to a disposal or composting site on a regular basis.
3. Manure can be spread, using a manure spreader, as fertilizer over larger fields.

For more information on how to compost and how to make a composting system, check out our "Generally Accepted Composting practices" from our website!

5) **Odor control**

Odor issues are one of the most frequent complaints received by local boards of health. Zoning enforcement officers and local health officials, often get into debates with farmers over odor issues. These disputes are very common throughout the Commonwealth, particularly when farmers are spreading manure near homes. Massachusetts law allows local boards of health to investigate when a nuisance smell appears to go beyond "normal maintenance" on a farm. Often the Department of Agricultural Resources will be called to send a representative to inspect the farm. Controlling farm odors is not as difficult as you might think. The first step is to follow these basic control strategies:

☒ Use the above strategy from "**Best Management Practices for Controlling Mud & Manure"**

- ***Prevent*** the creation of odors & alter strong odors to less intense odor – (example - use Lime while composting or in paddocks and on muddy areas)
- ***Location –*** be respectful of the location of your composting area to prevent the odor from reaching your neighbors nose. Consider the wind directions.

6) **Fly control**

You should not wait until a problem exists to begin a fly control program. Flies are among the most difficult pests to control. A good program needs to be in place before fly numbers increase.
These six flies are the most common types found on the farm. The Horn Fly, House Fly, Stable Fly, Horse Flies, Black flies and Face Fly cause problems in pasture situations, while the House Fly and Stable Fly are a problem around barns and stable areas.

Best Management Practices: Sanitation is the most important factor in any fly control plan. Manure and other organic fly breeding material should be regularly removed from barn and stable areas. Composting manure can also aid in fly control. The heat generated by proper composting will kill fly eggs, therefore reducing fly populations. Clean up spilled feed and other organic materials to prevent additional fly breeding grounds. Waterers should also be properly cleaned and maintained. The proper use of commercially purchased fly predators can also be of great assistance in controlling flies.

See your local farm supply for Treatment and control of flies.

Note There is no known method of fly control that offers 100% eradication of pest flies.**

7) **Feed & Nutrition & WATER**

Food / Water Horses should always have access to clean/unfrozen water to drink. Good quality hay or grass should be available depending on your horse's needs. Grain should only be fed in the amount and type that your Veterinarian recommends. On average, a 1000lb horse will eat about 20-40lbs. of hay/grass per day and drink 10+ gallons of water. Also, provide access to electrolyte salts or salt block daily.

Check with your Veterinarian for support and guidance in the best options of feed for your horse.

For more information regarding horse nutritional needs/proteins here are some recommended links:

https://ag.umass.edu/crops-dairy-livestock-equine/fact-sheets/selecting-forage-species

8) **Routine Medical & Veterinarian care**

In addition to properly feeding and exercising your horse, other aspects of general care are needed to keep your horse healthy throughout his or her life. These include routine veterinary care for vaccinations, parasite control, and dental care; grooming and hoof care; and protection from the elements.

Importance of veterinarian care - Adult horses should have a complete veterinary examination at least once a year. Your veterinarian may recommend a wellness program for your horse, including routine blood tests.

Signs of Illness - You should monitor your horse regularly for signs of illness, such as during daily feeding and grooming times. General signs of illness include a lack of appetite, diarrhea, coughing and sneezing, or a discharge from the eyes or nose. Illness can also show up as a loss of hair or itchy areas on the skin. Problems with the musculoskeletal system are often seen as lameness (such as not putting

weight on a particular leg), reluctance to move, or head bobbing. If your horse shows any of these signs consult a veterinarian.

Vaccinations - Vaccination is a key component of preventive medicine in horses. Vaccinations are given to stimulate the immune system against infection before exposure to disease. Several vaccines are routinely given to horses as the core defense against serious infectious illness. Your veterinarian can advise which vaccines are necessary in your local area and circumstances.
Vaccinations should be administered by your veterinarian or other properly trained individual

Parasite Control - Due to new research regarding drug resistance in parasite control, rotation deworming is no longer recommended. Instead fecal testing, deworming and protecting the environment to rid horses of any existing infection and prevention is recommended. It is important to use the right dewormer, in the right dosage, at the right time. Deworming should be based on fecal egg count and targeting the specific parasite present. Contact your Veterinarian for more information on your horse's needs.

External Parasites▼ - As outdoor animals, horses are also bothered by flies and ticks. These can cause sores and subsequent infection on the head, neck, ears, face, abdomen, and legs. Irritation from external parasites can also cause general upset, failure to grow and thrive, and decreased appetite (for example, fly "worry"). Horses should be checked regularly for ticks or signs of fly damage. Fly control includes proper manure management and stall cleanliness. Many different insecticidal salves, lotions, sprays, and rubs are available that can be used to remove ticks and decrease insect irritation and annoyance. Consult your veterinarian or extension service about an appropriate control program for your area and circumstances.

Dental Care - Equine teeth grow and wear down continuously throughout life. Unfortunately, they often wear unevenly, leading to sharp points, edges, and even hooks that need to be trimmed down, or "floated." Typically, the horse requires annual Floating to be done. Contact your Equine dentist or veterinarian.
Hoof Care – Trimming of the horse's feet or shoeing every 6-10 weeks. Not all horses require shoes. Check with your farrier for his recommendations.

9) **Equine Disease & Vaccinations**
Consult your veterinarian for necessary inoculations, here is a list of common vaccines in the Northeast area
Rabies – Required by Massachusetts Law
Eastern/Western Equine Encephalitis -
West Nile Virus
Tetanus-
Influenza -
Equine Herpes Virus or Rhinopneumonitis
Potomac Horse Fever –
Strangles –

Coggins test–
Almost all competitions and other large organized equestrian gatherings such as trail rides require a negative Coggins within the last twelve months. For any interstate travel as well as international travel, an up-to-date

negative Coggins test is needed to accompany health papers that are supplied by your veterinarian. Most boarding stables and training barns also require a negative Coggins before a new horse is introduced.

10) **Common Equine Illnesses**

Equine colic: Colic is a relatively common disorder of the digestive system. Although the term **colic**, in the true definition of the word, simply means "abdominal pain," the term in **horses** refers to a potentially serious condition which can commonly be **caused** by a change of diet, a lack of roughage or parasites. Impaction **colic**: This is when a blockage occurs in the intestine.

It is estimated that around 10% of **horses will** have **colic** each year. The most important thing to remember is that **colic can kill** your **horse** very quickly, so if you notice any of the following signs, don't wait: Call your veterinarian immediately and tell them it is a possible **colic** emergency. Many colics can be resolved on farm under veterinary supervision using pain medications, and other therapies, however some require surgery.

Not all cases end in Surgery, however, Colic surgery is usually an expensive procedure as it is major abdominal **surgery**, often with intensive aftercare. Among domesticated horses, **colic** is the leading cause of premature death.

Some symptoms of colic are severe abdominal discomfort characterized by but not limited to pawing, rolling, and sometimes the inability to defecate.

Laminitis: **Laminitis** is a disease that affects the feet of hooved animals and it is found mostly in horses and cattle. Clinical signs include foot tenderness progressing to inability to walk, increased digital pulses, and increased temperature in the hooves. Severe cases with outwardly visible clinical signs are known by the colloquial term **founder**, and progression of the disease may lead to perforation of the coffin bone through the sole of the hoof, requiring aggressive treatment or euthanasia.

For more information on common equine diseases, check here:

http://www.massequine.com/images/newsletter.pdf

It is a good idea to KEEP emergency contact information handy in your barn where it can be easily found by a care taker.

A chart of normal Vital signs for your horse should be kept handy.

EQUINE VITAL SIGNS

The following are normal vital sign values for a mature horse at rest, with instructions on how to take them. Note that it is important to know what is "normal" for your horse as these ranges tend to vary based on fitness, climate, age etc.

Heart Rate / Pulse (32 to 44 bpm) - Place stethoscope up under left elbow on the ribs. Listen for a "lub dub" sound which counts as 1 beat. OR take pulse under jaw. Count # of beats occurring in 15 seconds, multiply by 4 to get beats per minute.

Respiration (10-20 bpm) - Watch the horse's rib cage rise and fall or watch nostrils flare, count # of breaths in 15 seconds, multiply by 4 to get breaths per minute.

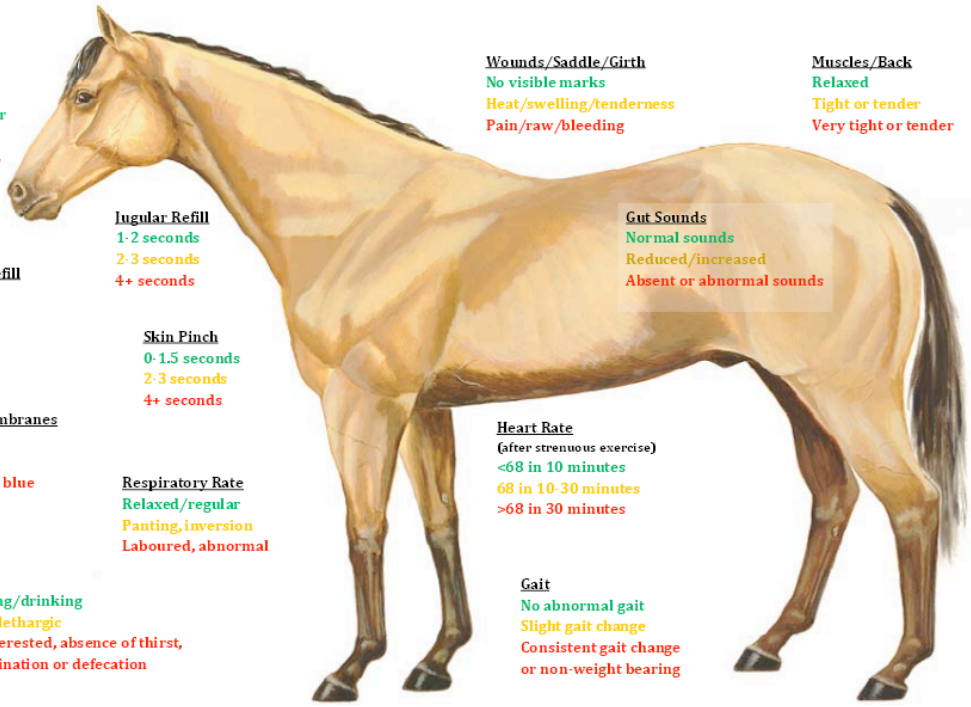
Capillary Refill (< 3 secs) - Press finger onto gum tissue adjacent to teeth and count how many seconds for color to return after removing pressure.

Temperature (99.5 to101.5°F) - Place lubricated glass or digital thermometer into rectum hold for 2 minutes and read.

Hydration - Gums should be healthy pink and moist.

In case of abnormal values call your vet immediately ( ) -

The Horse Health Check



Stop!
Caution!
Go!

Eyes
Bright, clear
Glassy
Fixed stare, sunken eye

Jugular Refill
1-2 seconds
2-3 seconds
4+ seconds

Capillary Refill
0-1 seconds
2-3 seconds
4+ seconds

Skin Pinch
0-1.5 seconds
2-3 seconds
4+ seconds

Mucous Membranes
Pink, moist
Pale, tacky
Dry, purple, blue

Respiratory Rate
Relaxed/regular
Panting, inversion
Laboured, abnormal

Attitude
Bright/eating/drinking
Depressed/lethargic
Dull, not interested, absence of thirst, appetite, urination or defecation

Wounds/Saddle/Girth
No visible marks
Heat/swelling/tenderness
Pain/raw/bleeding

Muscles/Back
Relaxed
Tight or tender
Very tight or tender

Gut Sounds
Normal sounds
Reduced/increased
Absent or abnormal sounds

Heart Rate
(after strenuous exercise)
<68 in 10 minutes
68 in 10-30 minutes
>68 in 30 minutes

Gait
No abnormal gait
Slight gait change
Consistent gait change or non-weight bearing

Rectal Temperature
<38.6 °C pre-ride
<39.6 °C during ride
39.5-40.4 °C during ride
>40.5 °C

Anal Tone
Tight
Slightly loose
Anus/penis relaxed

Joints/Legs
No heat or swelling
Heat/swelling
Pain/raw bleeding

Impulsion
Free, willing, eager
Stumble/short stride
Stiffness/limping