

Junior 4-H Horse Project Book

(3rd Year Junior)

Name: _____ Birthdate: _____

Address: _____

Town: _____ State: _____ Zip Code: _____

Name of 4-H Club _____

Club Leader: _____

Years in 4-H: _____ Years in Horse Project: _____



Targeting Life Skills Model

4-H Motto

To Make the Best
BETTER

4-H PLEDGE

I pledge my **HEAD** to clearer thinking,
my **HEART** to greater loyalty,
my **HANDS** to larger service,
and my **HEALTH** to better living,
for my club, my community,
my country, and my world.



My 4-H Story

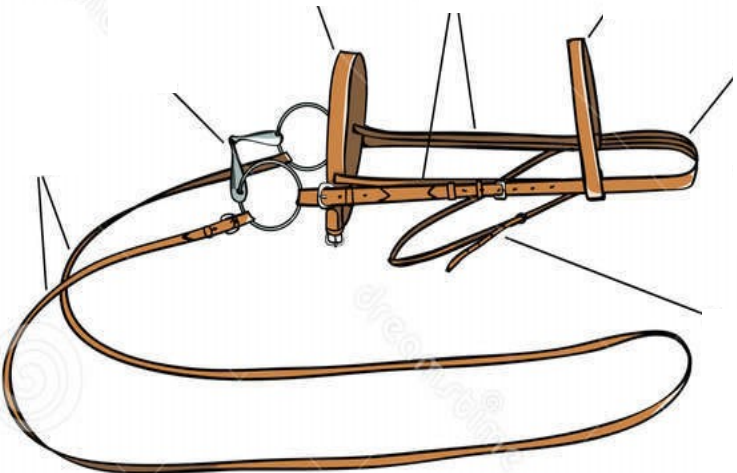
Activities you did with your club. Different programs/clinics you attended. What you and your horse learned this year. Fun things you did.. What part of your project you liked best. What you gained out of being in the 4-H program.

Activities

Read the list below and choose 4 activities to do. Please use the space below or attach pages

1. Read a horse book or watch a horse movie and write a summary.
2. Observe a horse being shod and report what happened.
3. Disassemble and re-assemble both an English and a Western Bridle. Take before and after pictures.
4. Call a breed registry and find out what information is required to register with that breed., write out the information needed.
5. Take a picture of your horse's feed. Include a picture in the project book and identify what's in it.
6. Make a first aid kit or update your current first aid kit in your barn. Take a picture of the kit to put in your project book and a list of everything that is included in the kit.
7. Teach someone who does not know how to mount a horse

Parts of the english Bridle

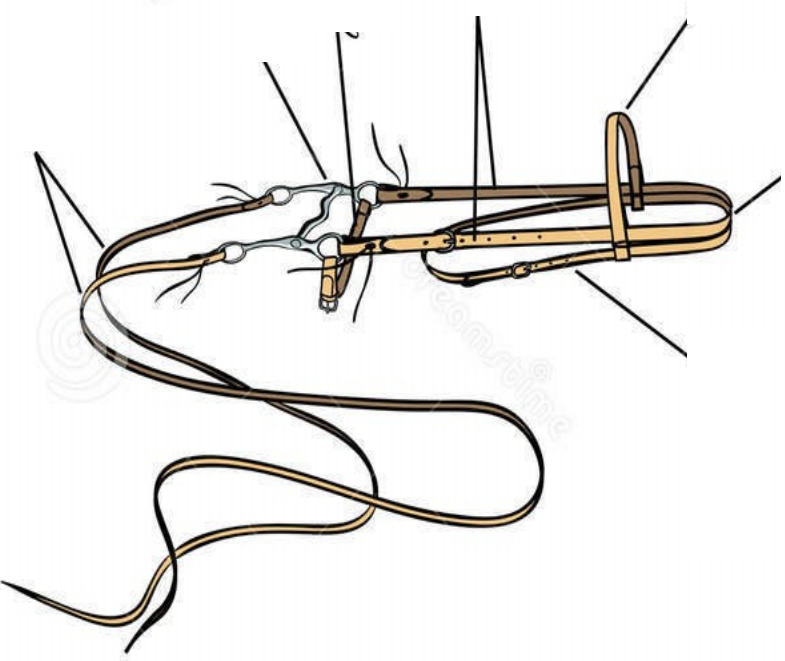


Crownpiece
Browband
Noseband/ Cavasson
Reins

Bit
Throat Latch
Cheek Pieces

Label the Parts of

the Bridles

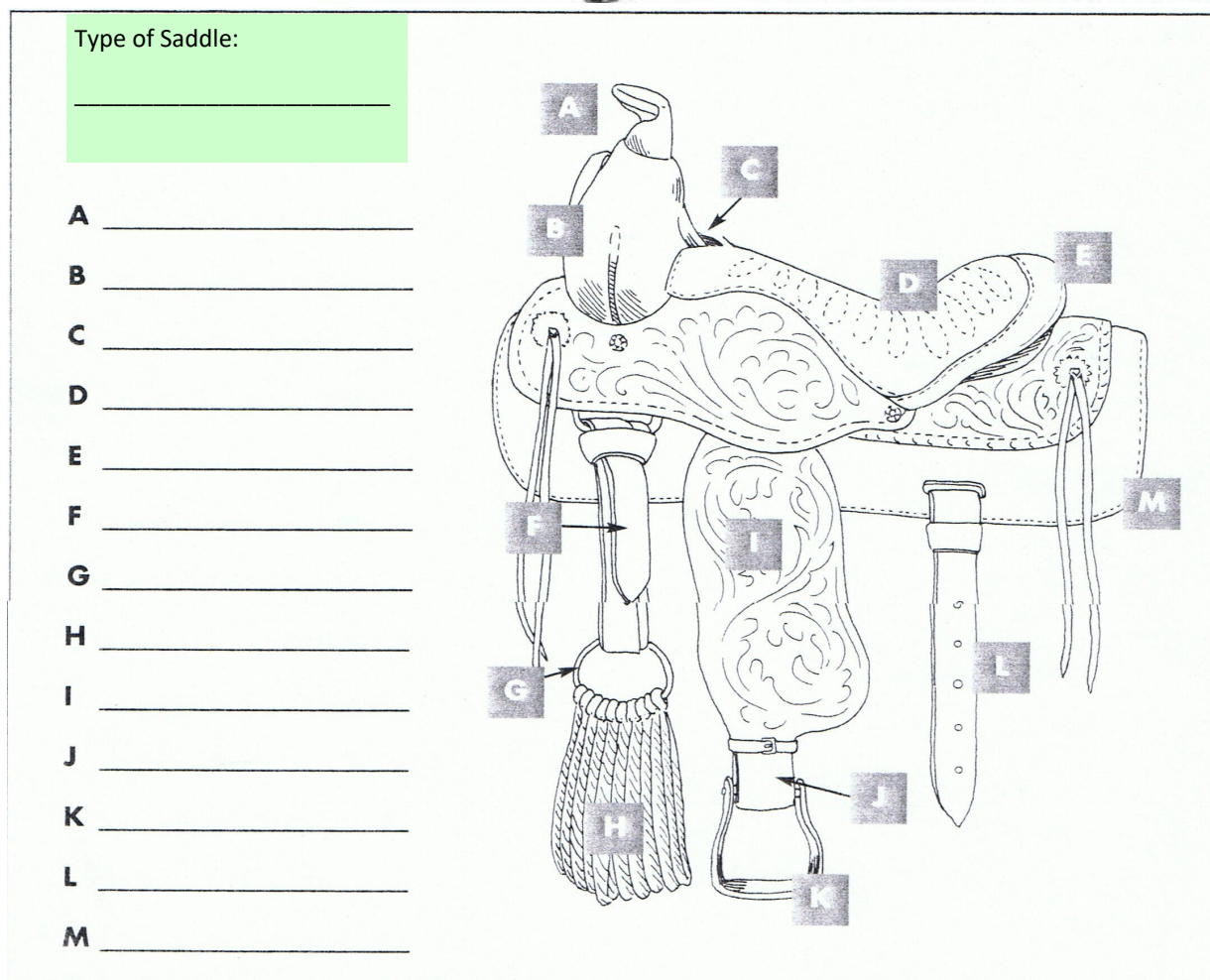
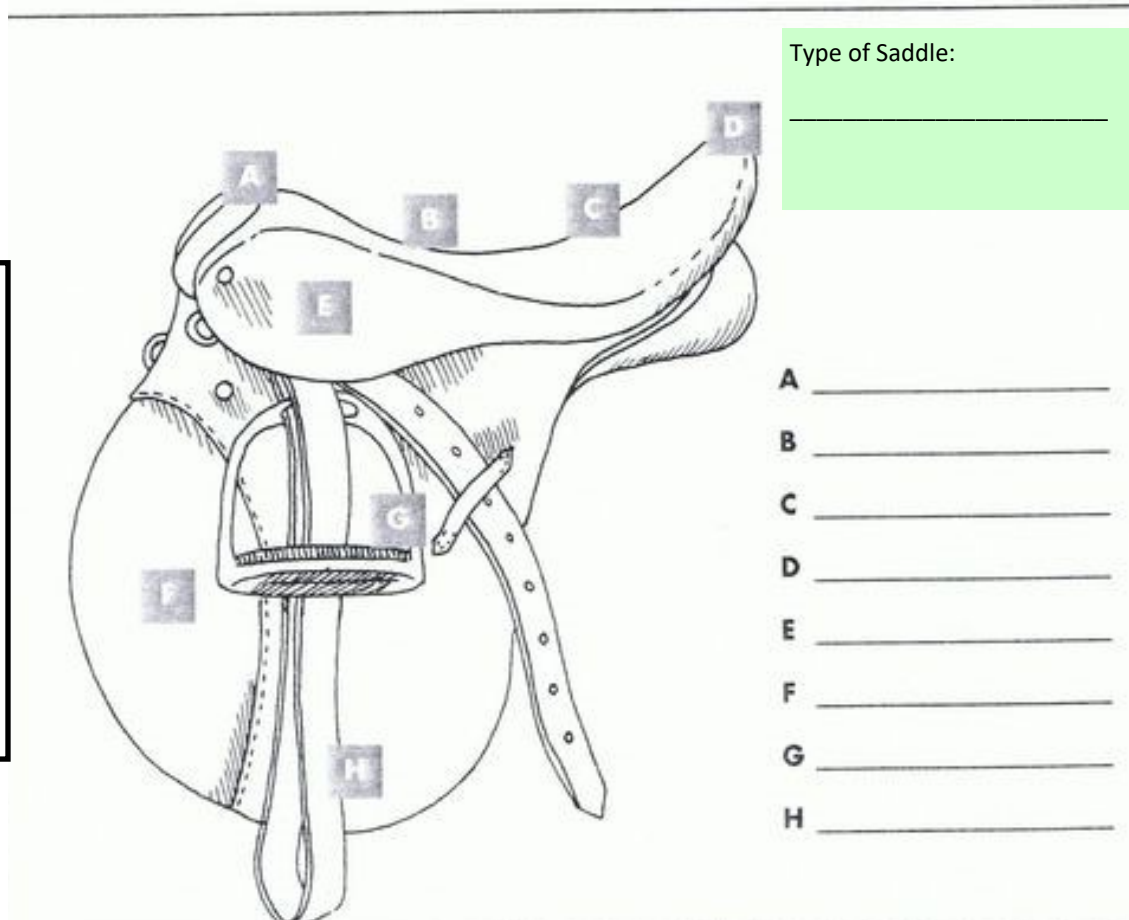


Crown piece
Bit
Reins
Browband

Throat Latch
Cheek Pieces
Curb Strab

Parts of the western Bridle

Label for
each picture
what type of
saddle it is
and the parts
of the saddle



Anyone who works with horses should know the proper terms for the external parts of a horse and where these parts or areas are located on a horse's body. These terms are important when describing the conformation of a horse, judging horses, caring for horses, or when discussing and using tack.

EARS The ears are located at the top of the horse's head. Ears can swivel back and forth in any direction and are a very expressive part of the horse's behavior; for example, they can indicate that the horse is relaxed, interested, cautious or angry.

POLL The poll is the bony prominence between the ears. Except for the ears, it is the highest point on the horse's body when it is standing with its head up.

FORELOCK/MANE The forelock (not identified on the diagram) is the lock of hair which falls down the horse's forehead or face from where it grows between the ears. The mane is the long and relatively coarse hair growing from the dorsal (top or back next to backbone) ridge of the neck, lying on either the left or right side of the neck.

CREST The crest is the curved top line of the neck. It is moderately lean in mares but inclined to be fuller in stallions -- a secondary sex trait or character. Secondary sexual characteristics are physical attributes other than the reproductive organs that distinguish males from females. In the male, the hormone testosterone influences these traits.

SHOULDER The point of shoulder is a hard, bony prominence surrounded by heavy muscle masses. Shoulders should be covered with lean, flat muscle and blend well into the withers. Ideally the shoulder should be long, sloping and muscular. This provides the flexibility of movement that enables the horse to adapt its gait to variations in the terrain. A long shoulder enables the horse to bring the front legs forward for a good stride.

WITHERS The withers is the prominent ridge where the neck and the back join. Powerful muscles of the neck and shoulders attach here to the spines of the second to sixth thoracic vertebrae. Since the withers is the horse's highest constant point, the height of a horse is measured vertically from the withers to the ground. Horse height is given in inches or in hands. One hand equals 4 inches.

On a saddle horse, the withers should be prominent. If the saddle fits poorly, sores can occur in this area of the horse. Injuries to the withers and defects of the withers can cause serious problems.

HEARTGIRTH Heartgirth (not indicated on the diagram) is the circumference around the horse directly behind the front legs and over the highest part of the withers. Heartgirth can be used in a standard formula to estimate a horse's weight. The formula to estimate the weight of a horse is:

(Heartgirth X Heartgirth X Body Length)/330 = Estimated horse weight in pounds

To measure the body length, refer to the section on the buttock. All measurements are taken in inches.

BACK The back extends from the base of the withers to where the last rib is attached to the spine. The saddle is placed on the back. When riding without a saddle, a rider is riding bareback. Ideally the back slopes gently from front to rear. A concave back on a horse is called swayback. A deep swayback causes the saddle to ride up onto the shoulders giving the rider a poor seat. The opposite of a swayback is a roachback. This defect results in a stiff stride.

BARREL The barrel extends from behind the shoulders to the loins. It should be narrower at the shoulders and widen at the point of coupling (loins). The barrel reflects the capacity of the body cavity.

POINT OF HIP The hip area is one of the first indications that a horse may be having a weight problem. When weight is lost, the hip bones will begin to stick up.

LOIN The loin or coupling is the short area joining the back to the powerful muscles in the croup or rump.

CROUP OR RUMP The croup or rump lies between the loin and the tail. When looking at a horse from the side or back, the croup is the highest point of the hindquarters. The rump should be long, horizontal, somewhat muscular and fairly wide. The strength of the horse is proportional to the length of the rump. A horizontal rump with a slope of less than 25 degrees relative to the top line means less strength in the hindquarters. A horse with a slope of more than 45 degrees is a poor ride.

FLANK The flank is the area below the loin, between the last rib and the massive muscles of the thigh.

THIGH The thigh is formed by the massive muscles attached to and around the femur bone.

BUTTOCK The buttock location is used to determine the body length (in inches) which is measured from the point of the shoulder, straight back along the horse's side, and to the point of the buttock. When measured, the tape should go around the corner of the hip and to the actual point of the buttock. This is essentially half the distance from the corner to the tail.

QUARTER The quarter, also called the hindquarter, gives power to the horse. The quarters should be well-muscled when viewed from the side and rear.

STIFLE The stifle is the joint at the end of the thigh (femur) corresponding to the human knee, but not functioning the same as the human knee.

GASKIN The gaskin is the region between the stifle and the hock.

HOCK The hock is the joint between the gaskin and the cannon bone, in the rear leg. The bony protuberance at the back of the hock is called the point of hock. It has to withstand the forces exerted by the hindquarters. The ideal hock must be flat, clean-cut and long. An inflammation at the base of the hock is a bone spavin, and this can cause lameness. Bog spavin is a soft tumor on the outside of the hock that makes the hock appear deformed.

CANNON The cannon bone lies between the knee and fetlock joint, and is visible from the front of the leg. It should be straight, short and strong. The cannon bone should appear wider from the side than from the front.

PASTERN The pastern extends from the fetlock to the top of the hoof. It acts as the shock absorber for the horse. When the hoof is well-shaped, the pastern should be on the same slope as the wall of the hoof. The most common angle is 45 degrees. Bony tumors sometimes develop on the pastern and this painful condition is called sidebone.

CORONET The coronet is the band around the top of the hoof from which the hoof wall grows.

HOOF The hoof refers to the horny wall and the sole of the foot. The foot includes the horny structure and the pedal bones and navicular bones, as well as other connective tissue.

FETLOCK The fetlock is the joint between the cannon bone and the pastern. The fetlock joint should be large and clean. It is important to the smoothness of the gait. Windgalls are small lumps at the back of the fetlock joint, and these cause limping.

ABDOMEN/BELLY The belly or abdomen is behind the ribs and it should be round, and neither too bulky nor too flat. The size of the belly depends on the horse's diet. A drooping belly is a sign of too much coarse roughage and not enough exercise.

ELBOW The elbow is a bony prominence lying against the chest at the beginning of the forearm. The elbow is often knocked by the hooves when a horse gets down on the ground and curls its legs under. This can cause soft tumors on the elbow. These tumors can be prevented by applying a pad to the pastern.

CHESTNUTS Chestnuts are horny growths located on the inside of the horse's legs, above the knees and below the hocks. The size and shape of the chestnuts are unique to each horse, and have been used to help identify horses.

KNEE A horse's knee is on its front leg (illogically), the joint that bends forward, just like a human knee. This joint is the equivalent of the human wrist. Above this knee is a backward bending joint, up near the shoulder, which is the equivalent of a human elbow.

The knee joint should be broad, thick and vertical. External injuries or internal strains to the knee cause hard lumps called osselets to form. These blemish the joint and may eventually immobilize it.

FOREARM The forearm extends from the elbow to the knee. It should be well-muscled, and vertical, giving length to a horse's stride.

ARM The arm is muscles around and attached to the humerus bone that connects to the shoulder blade or scapula.

CHEST/BREAST The breast is a muscle mass between the forelegs (front legs), covering the front of the chest. An ideal chest is deep and contains the space necessary for vital organs. A narrow chest can lead to interference with the front legs. Ideally, chest muscles should be well-developed and form an inverted "V." The prominence of chest muscling depends on the breed. The chest should be long, wide and deep. If the chest is too small, the horse can become easily winded.

NECK The neck should be slightly arched, blend smoothly into the withers and the shoulders, and not appear to emerge between the front legs. It must support the head properly, and should be of medium length. Light horses should have reasonably long necks for good appearance and proper balance. The neck that is too long tends to lack strength. A too-long neck also detracts from the appearance. The neck that is too short lacks flexibility.

THROAT LATCH The neck should be fine at the throat latch to allow the horse ease of flexation. In this area the windpipe (trachea), esophagus and blood vessels traverse from the head to the body.

CHEEK The cheek is the side of the horse's face located between the upper and lower jaw. The lower jaw is used for grinding food.

MUZZLE/LIPS The chin, mouth and nostrils make up the muzzle on the face. The head should taper to a small muzzle, the lips should be firm, and the lower lip should not have the tendency to sag. Lips are very sensitive and can choose certain blades of grass over others, and over weeds and other things. The lips should remain slack except while chewing. The muzzle is also important in social interactions. Horses greet other horses by touching muzzle to muzzle.

NOSTRILS/NOSE The nostrils are a part of the horse's nose. Nostrils should be broad and well-opened since a horse cannot breathe through his mouth. They function in the sense of smell which enables the horse to detect undesirable items in its feed.

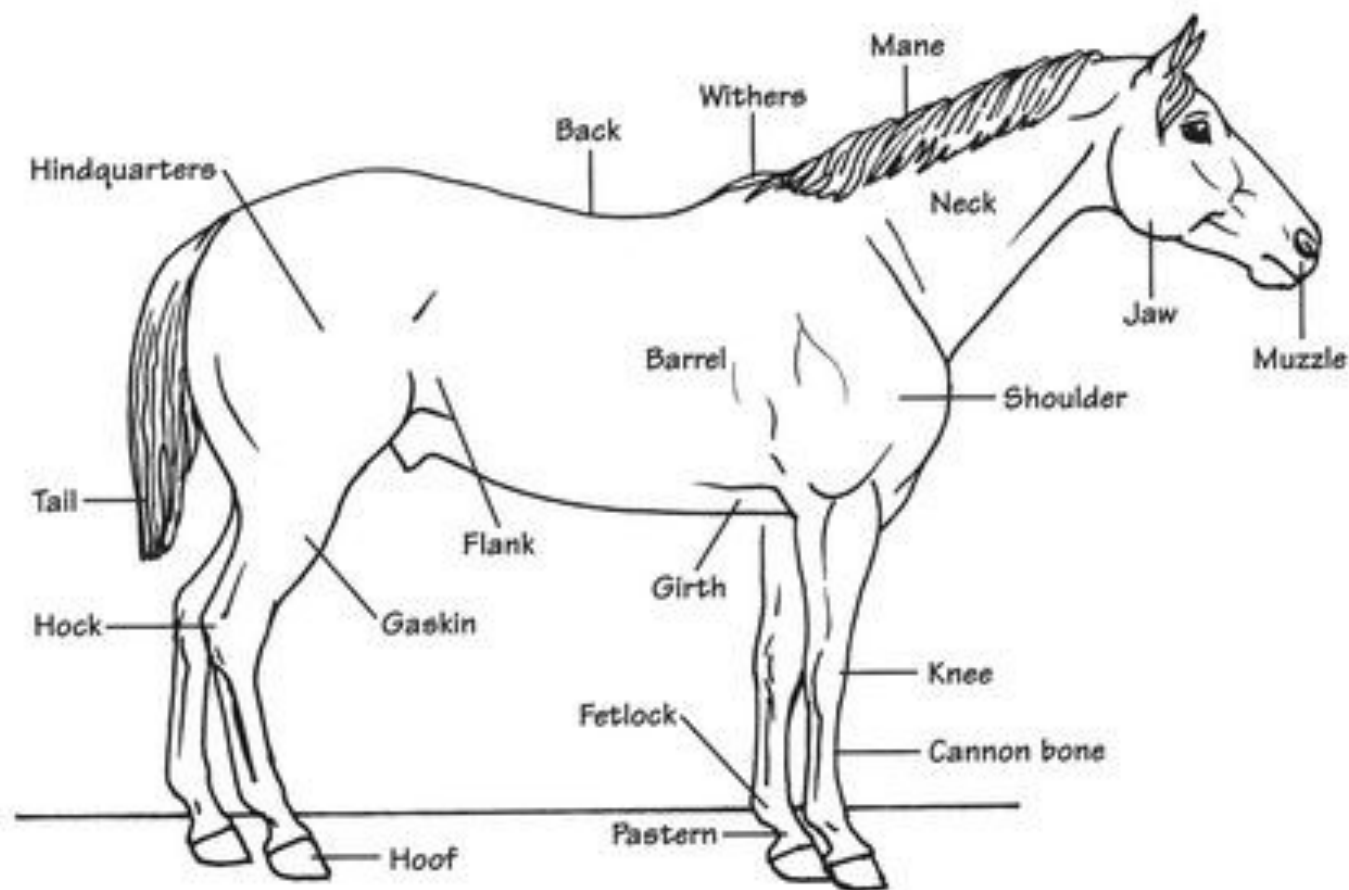
MOUTH The mouth is located underneath its nose. The horse eats with its mouth and often uses it with the lips to express some feeling. When a horse is very relaxed and sleepy it will sometimes open its mouth slightly and droop its eyes shut. The sensitivity of the mouth varies greatly from horse to horse. Some horses will respond to the slightest pressure on the bit, while others will require strong handling of the reins. A bit can cause injuries at the corners of the mouth, and an improperly used bit can cut the horse's tongue.

FACE/FOREHEAD The forehead is the space between the horse's eyes, extending from the top of the head at the ears down to the top of the horse's nose. The forehead should be broad, full and flat.

EYE The eye is the organ of vision. An albino horse can have blue eyes, or one blue eye and one brown eye. Other horses can have brown, blue or walleyes. Horses with walleyes have light colored irises. The horse's eyes are located on either side of its head. The eyes work independently of each other. Each covers a wide field of vision over a full semicircle. The horse can see almost a full one hundred and eighty degrees with each eye; however, a horse cannot see directly behind or directly in front. This means that humans need to be careful when walking behind or in front of a horse, since a horse often lashes out at what cannot be seen.

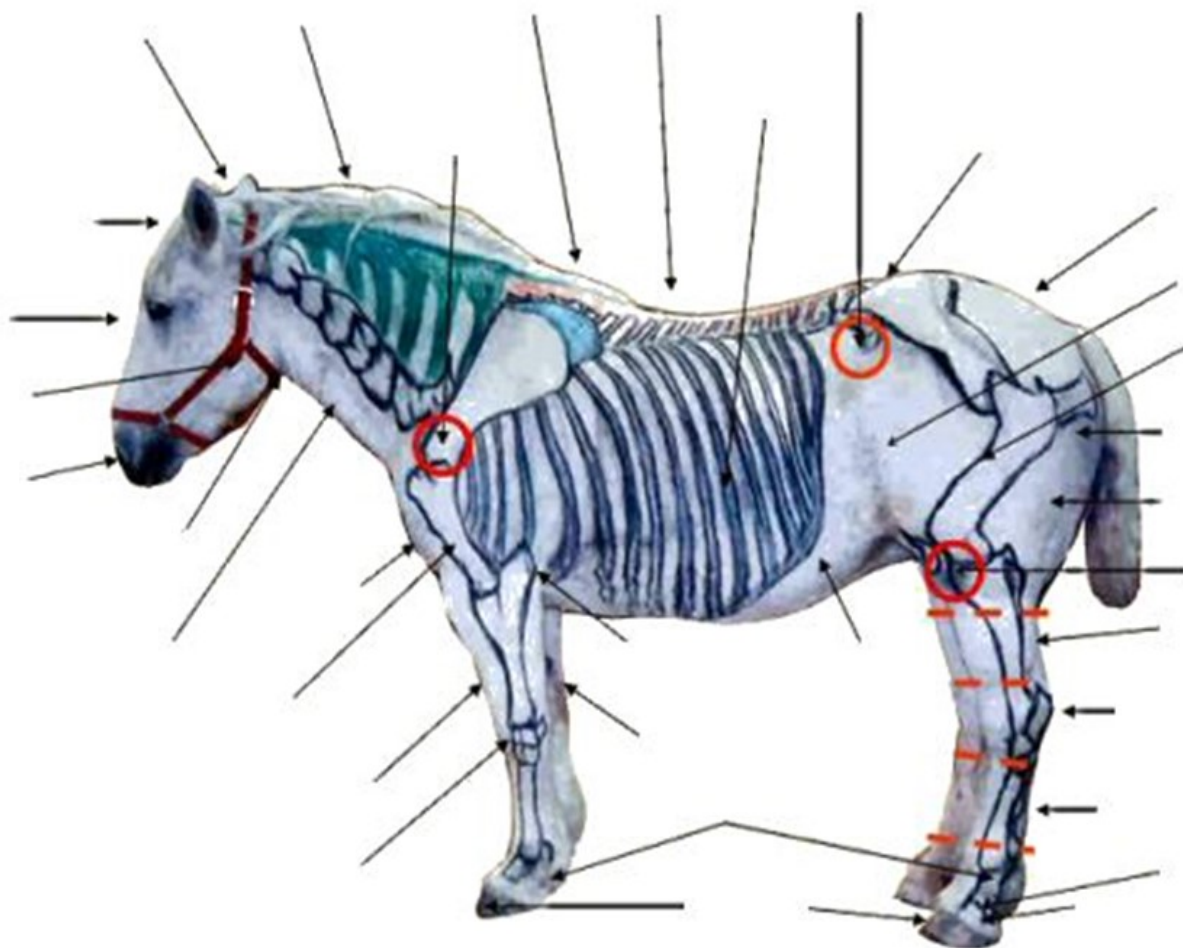
Eyes are protected by bony sockets, lids and lashes. The eye sockets are hollow at the top, and their depth increases with age. Horse owners do not like small and deep set "pig eyes," nor do they like large and bulging "bull's eyes."

SUMMARY: The various body parts of the horse should be in proportion to one another, and all of the parts should look like they belong to the same horse. In general the ideal horse possesses good balance. Balance is not purely for aesthetics. A balanced horse will be well-coordinated, and give a smoother and more comfortable ride.



Parts of the Horse Word Search

J D H I N D Q U A R T E R S D F A L N P
 A B O Z Z E G J B M A C X H P K N E E A
 W U C M P S N R F O O H T O F I P R V S
 X M K G A H T P J C E K Q U D E Y B L T
 A S I Z W M A N E T A I L L I O N A D E
 G M F Z P I O G H Y M J N D X P T R I R
 A Q E V C A N N O N B O N E C L E R S N
 S R T H M S B K P W S I T R L A T E L W
 K P L A C M R U E B A C K I N S A L G I
 I P O K L F U P G R N K R V H N J P W T
 N B C D E K C Z F A R L P G O E G J F H
 D A K Z U L E T Z D H M I J P C J E A E
 J S U D A Q V O P L N C A B D K V N Q R
 F L A N K A B S T R E N L G I R T H Y S



Label the Parts of the Horse: abdomen, arm, buttock, back, barrel, cannon, cheek, chest, chestnut, coronet, crest, croup, elbow, face, fetlock joint, flank, forearm, forehead, gaskin, hock, hoof, knee, loin, muzzle neck, point of hip, pastern, poll, quarter, shoulder, stifle, thigh, throat latch, withers.

Draw a line to match the parts of the horse to the same part of your body

Horse Parts

Knee
Fetlock
Navicular Bone
Elbow Stifle

Human Parts

Wrist
Fingertip
Ankle Hock
Knee

Gaits of a Horse

What are the natural gaits and artificial gaits of the horse and the distinguishing characteristics of each gait?

A gait is the horse's manner of moving its legs in a progressive precise pattern. The horse is the most versatile quadruped in selecting gaits, and several of these gaits are unique to the horse. Several terms and concepts are used to describe the various gaits.

- The left side of the horse is referred to as the near side and the right side as the far side.
- A hoof, or two hooves striking the ground simultaneously, is a beat. The beats may or may not be evenly spaced in time.
- A step is the distance between imprints of the two forelegs or hindlegs.
- A stride is the distance between imprints of the same foot.

During each stride, each leg goes through two phases: 1) the stance or weight-bearing phase and 2) the swing or nonbearing weight phase. A horse's ability to maintain swing time for a leg is affected by the amount of time that all legs are off the ground, the stance phase for all legs, and the overlap phase (when two or more feet are on the ground simultaneously).

This can be illustrated by examining the strides of Secretariat and Riva Ridge in the 1973 Marlboro Cup, in which both horses broke the world record for 1 1/8 miles. We can determine the effect of overlap and stance phases between these two horses and how it affected the outcome of the race. Secretariat ran faster because his legs spent less time in the stance and overlap phase. That is, his legs completed their ground contact quicker and more time was spent in the airborne phase.

NATURAL GAITS Six gaits are classified as natural for the horse: walk, trot, pace, canter, gallop, and back.

Walk: The walk is a four-beat gait. The hoof sequence is 1) left hind, 2) left fore, 3) right hind, 4) right fore. Therefore, the sequence of beats is lateral in that both feet on one side strike the ground before the feet of the opposite side strike the ground.

Trot: The trot is a two-beat gait in which the paired diagonal feet strike the ground and leave the ground simultaneously. Between beats there is a period of suspension where all four feet are off the ground. There are three classifications of the trot. The normal trot serves as the basis for comparison. The extended trot is when the horse is trotting and the length of the stride is extended. Standardbred horses are the best example of horses exhibiting an extended trot. A collected trot is when the horse slows down and uses extreme flexion of the knees and hocks. Hackney horses exhibit a collected trot.

Pace: The pace is a two-beat lateral gait, in which the limbs on the same side strike the ground simultaneously. There is a lateral weight-bearing base of support and a period of suspension between each beat. The pace has a rolling motion, because the horse is shifting its weight from side to side.

Canter or lope: This gait is a three-beat gait in which the first and third beats are made by two legs striking the ground independently and the second beat is made by two limbs striking the ground simultaneously. The legs that strike the ground independently are called leading limbs, and each limb bears the entire weight of the horse for a short period of time. Limb sequence and beats for the left lead are (1) right hindleg, (2) left hindleg and right foreleg, and (3) left foreleg. A period of suspension follows the beat of the left foreleg.

The right lead limb sequence or beats are (1) left hindleg, (2) right hindleg and left foreleg, and (3) right foreleg. When a horse changes directions at a canter, the horse must change leads to maintain balance. The lead change occurs during the period of suspension.

Gallop: The gallop is a four beat gait, similar to the canter except that the paired diagonals do not land at the same time. The hindleg hits the ground just before the foreleg. The lead leg bears the entire weight of the horse. The left lead leg sequence is (1) right hindleg, (2) left hindleg, (3) right foreleg, and (4) left foreleg. A period of suspension follows the left foreleg in the four beat sequence. The right lead leg sequence is (1) left hindleg, (2) right hindleg, (3) left foreleg, and (4) right foreleg followed by a period of suspension.

Back: A horse backs by trotting in reverse, using a two-beat gait in which the diagonal pairs of legs work together.

ARTIFICIAL GAITS Most artificial or man-made gaits are variations of the natural gaits, mostly as a variation of the walk.

Running walk: The running walk is the fast, smooth gait of the Tennessee walking horse, faster than the ordinary walk. The hindfoot can overstep the hoofprint of the forefoot by as much as 50 inches but normally is between 12 to 18 inches. The horse travels in a gliding motion, because of the overstepping of the hindlegs. The regular four-beat rhythm is maintained. When executing the gait, the head moves up and down in rhythm with the legs. If the horse is relaxed, the ears will flop in rhythm with the legs.

Rack: The rack is an even four-beat gait but is executed faster than the walk or running walk. The forelegs are brought upward to produce animations and action. The hindlegs do overreach the prints of the forelegs. The rack is very popular because of the speed and animation, but is only performed for a short time because it is difficult for the horse to perform for extended periods.

Slow gait:

The slow gait is a variation of the pace. It is performed by five-gaited horses. The hindlegs strike the ground before the lateral foreleg so that the gait has four irregular rhythm beats. In the takeoff, both legs leave the ground simultaneously.

COMMON DEFECTS IN GAITS

Cross firing:

Cross firing occurs when the inside of the hindfoot strikes the diagonal foreleg. It is generally seen in pacers that have long backs.

Forging:

Forging occurs when the toe of the hindfoot strikes the sole area of the forefoot on the same side. It usually occurs as the forefoot is leaving the ground. It occurs because the hindfoot breaks over and moves forward too soon relative to the forefoot.

Overreaching:

Overreaching is similar to forging except that the hindfoot hits the heel of the forefoot before it leaves the ground. It occurs because the hindfoot breaks over and moves forward too soon relative to the forefoot.

Winging inward:

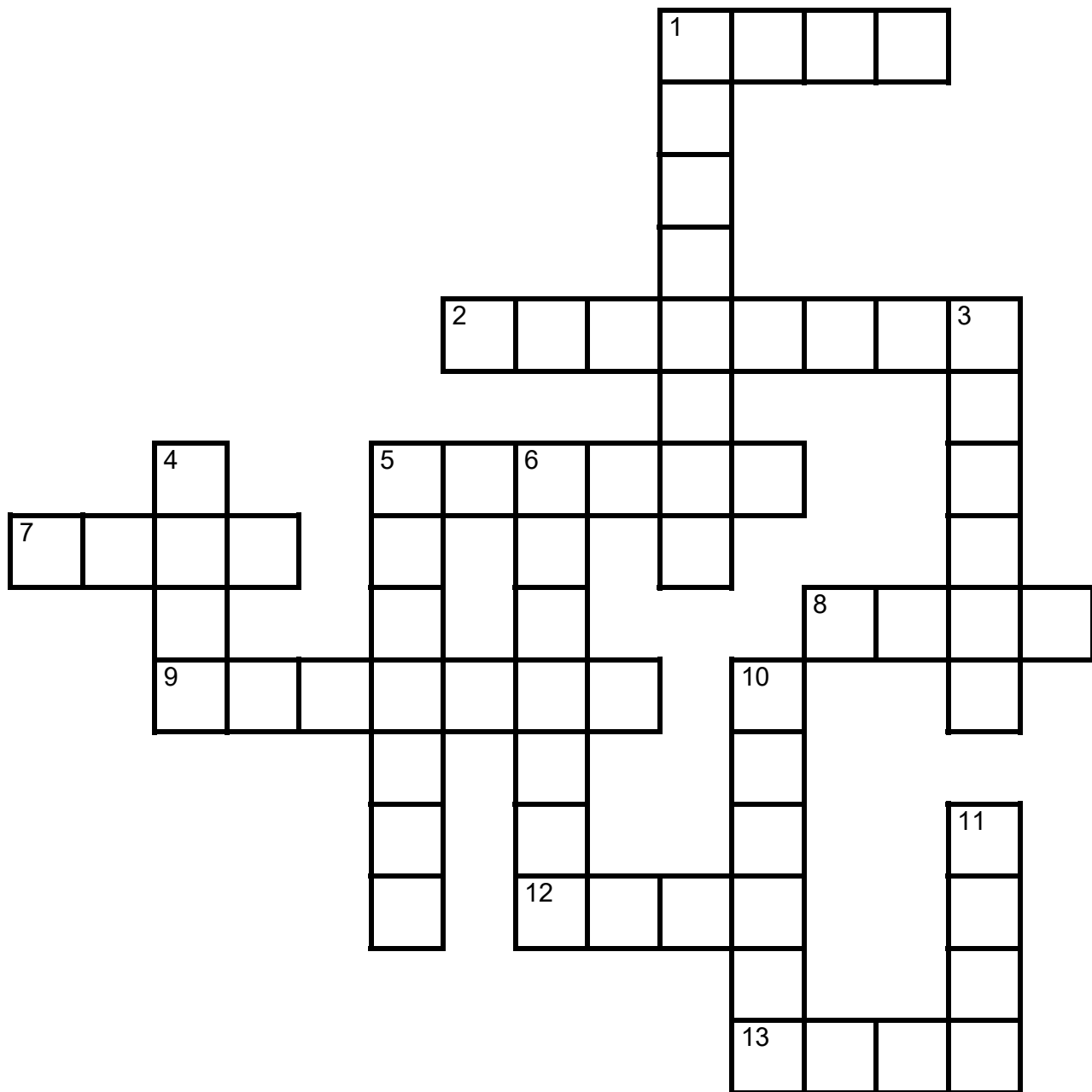
A horse with toed-out conformation causes the forefoot to break over to the inside part of the hoof wall, swing in an inward arc, and land on the inside part of the hoof wall.

Paddling out:

A horse with toed-in conformation causes the forefoot to break over the outside part of the hoof wall, swing in an outward arc, and land on the outside part of the hoof wall.

Scalping:

Scalping occurs when the top of the hindfoot hits the toe of the forefoot right after the forefoot breaks over.



Across

1. Two-beat gait with a rolling motion
2. When top of the hindfoot hits the toe of the forefoot
5. Cross ____ is a defect seen in pacers with long backs.
7. Slow four-beat gait
8. One of the two-beat gaits
9. Toed-out conformation causes ____ in.
12. Horse's manner of moving its legs
13. Four-beat gait difficult to perform for extended time

Down

1. Toed-in conformation causes ____ out.
3. Fast four-beat gait
4. Five-gaited horses perform the ____ gait.
5. Defect when toe of hindfoot strikes forefoot on same side
6. The ____ walk is used by Tennessee Walking Horses.
10. Three-beat gait
11. To trot in reverse

Explain three different gaits that a horse uses in moving. Identify how many beats to the gait.

1. _____

2. _____

3. _____

Feeding Horses

How do horse owners determine how much and what kinds of feeds are best for their horses?

INTRODUCTION

The greatest expense of owning a horse is the feed. This can be reduced by keeping a healthy horse, feeding a balanced ration according to need, and purchasing feeds that meet the needs of the animal. Feeding horses means furnishing horses with a daily supply of nutrients in the correct amounts; supplying palatable, easily obtained feeds; and providing feeds economical for the conditions.

High quality roughages form the basis for feeding horses. Depending on the condition of the horse, breed (size), activity level, age, gestational stage or lactation, the nutritional needs of the horse change. Additional nutritional needs can be met by feeding concentrates and protein supplements. The ration of a horse may also need to include mineral supplementation to cover calcium, phosphorus and other mineral requirements. Some vitamins may be added from a premix. Horse owners often rely on commercially prepared feeds.

NUTRIENT REQUIREMENTS

Horses consume forage by their nature. Under natural conditions, they spend over half of the day grazing. Basing rations on adequate amounts of good quality roughage minimizes digestive disturbances such as colic. Supplementing hay or pasture with the correct amount of the right concentrates will meet all requirements for energy, protein, minerals and vitamins.

All horses require certain nutrients to maintain body weight and to support digestive and metabolic functions. Specifically, horses need energy (digestible energy or DE), protein for amino acids (crude protein or CP), minerals (Calcium or Ca and Phosphorus or P), and vitamins. Two types of tables are used to determine how to feed horses:

Daily nutrient requirements of horses

Nutrient concentration in the feed which can be expressed on an as-fed basis or on a dry-matter basis (all the water removed)

In some cases horses need additional nutrients for growth, work, reproduction or lactation. The nutrient requirement tables take these factors into account.

Feeding horses is both an art and a science. Individual horses vary considerably in their nutrient requirements, so horse owners should consult a reference for the nutrient requirements of horses. Almost all of the nutrient requirement publications are based on the "The Nutrient Requirements of Horses" produced by the National Research Council and published by the National Academy of Sciences. Horse owners need to be able to read and understand nutrient requirement tables.

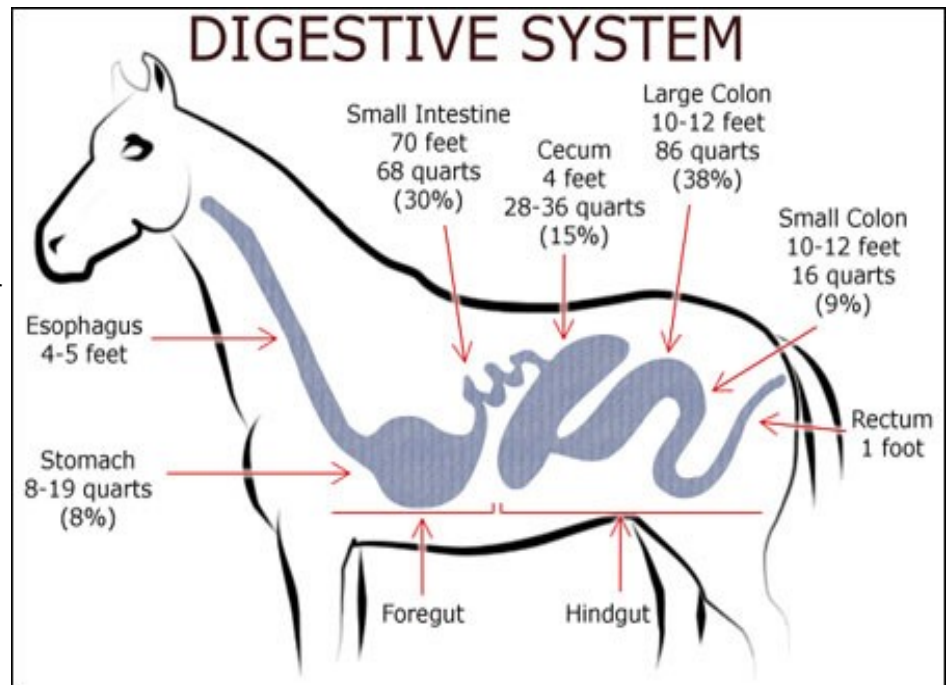
Table 1. Daily Nutrient Requirement for a 1,100-Pound Working Horse

Type of Work	Example	DE or Digestible Energy	Crude Protein (grams)	Calcium (grams)	Phosphorus (grams)
Maintenance	Little to no riding	16.4	656	20	11
Light	Pleasure riding	20.5	820	25	18
Moderate	Ranch work	24.6	984	30	21
Intense	Race training	32.8	1312	40	29

What are the component parts and how does the digestive system of the horse function?

DIGESTIVE SYSTEM

Animals have different types of digestive systems based on where and how they digest components of feeds. Nonruminant systems (e.g., man, pig, dog) are characterized by enzymatic digestion of carbohydrates, proteins and fats in the foregut, with limited fiber digestion in the hindgut. Ruminants (e.g., cow, sheep, deer) have more complex digestive systems which allow fiber digestion in the rumen, enzymatic digestion in the foregut, and relatively minimal digestion of fiber in the hindgut. The horse's digestive system is somewhat intermediate between other nonruminants and ruminants, in that high rates of enzymatic digestion occur in the foregut (mouth to small intestine); plus, high rates of fermentative microbial digestion occur in the hindgut (cecum to rectum).



The functions of the digestive system include prehension of food, mastication, digestion, absorption, and initial storage of the nutrients.

The lips of the horse's mouth are quite mobile and help in sucking and prehension of food. They are very sensitive tactile organs. The tongue is an important tactile organ and is necessary for mastication and swallowing. Salivary glands produce saliva, which lubricates the food and contains enzymes that help digest carbohydrates. Each day as much as 10 to 12 liters (2.6 to 3.2 gal) of saliva are secreted.

The esophagus is very muscular and opens into the stomach. It lies close to the skin on the bottom and left side of the neck. You can see the horse swallow because a muscular contraction moves the food.

The horse's stomach is small, relative to the total digestive tract and cannot accommodate large quantities of feed at any one time. Limited enzymatic digestion and some fermentative digestion from a small microbial population occurs in the stomach. Food remains in the stomach only about 15 minutes before it starts passing into the small intestine. A strong sphincter at the junction of the esophagus and the stomach make it almost impossible for the stomach contents or gas to be forced from the stomach into the esophagus. This means the horse cannot belch or vomit. This is why excess gas produced in the stomach can cause rupture of the stomach and death. Stomach capacity is about 8 to 15 liters (8-19 quarts) or 8 percent of the total capacity of the digestive tract.

The small intestine is the site where the majority of nutrient absorption occurs. It is here that soluble carbohydrates are digested to simple sugars and absorbed for use as energy. The small intestine appears to be the primary site for fat digestion and absorption. Bile salts are secreted continuously into the digestive tract to help break down fats. About 50 to 70 percent of the protein in grain-based diets is digested to amino acids and absorbed from the small intestine, but less than one-third of hay protein is absorbed from the foregut. The fat-soluble vitamins A, D, E and K are absorbed in the small intestine, as are B-vitamins, calcium and some phosphorus. The small intestine holds 75 liters (68 quarts) and is 70 feet long and accounts for 30 percent of the capacity of the digestive tract.

The large intestine is composed of the cecum and colon. The cecum may hold as much as 70 liters (64 quarts) but normally contains about 30 liters (32 quarts) and accounts for 15 percent of the digestive tract. The cecum is a pouch-like sac where fermentation and the majority of fiber digestion takes place. The large colon is in the shape of two U-shaped structures that lie more or less on top of each other. The large colon is 10-12 feet long and accounts for 38 percent of the digestive tract. The small colon has a smaller diameter than the large colon. The small colon is 10-12 feet long and accounts for 9 percent of the capacity of the digestive tract.

The horse's cecum contains an active population of bacteria and protozoa similar to that found in the rumen of ruminants. Microbes break down fibrous feeds into short-chained volatile fatty acids. Volatile fatty acids are an energy source for the horse, and the amount and proportion produced can be altered by the composition of the diet. Starch that reaches the hindgut is fermented to the volatile fatty acids plus lactic acid. Therefore, maximizing starch digestion in the foregut is of the utmost importance to horsemen.

Microbes synthesize amino acids in the large intestine, but essential amino acids are not absorbed in any appreciable quantity from the hindgut. Considerable quantities of B-vitamins are synthesized by the microbes in the large colon of the hindgut and are absorbed from the hindgut. Vitamin K is synthesized in adequate amounts by the hindgut.

ESTIMATING BODY WEIGHT

Probably the most commonly used technique for estimating body weight is a heart girth weigh tape. Heart girth weigh tapes are available from feed dealers, veterinarians and livestock supply companies. When used according to instructions, these tapes are reasonably accurate. Another method for estimating a horse's body weight is use of a body weight equation. One equation is:

$$\frac{W = \text{HG squared} \times \text{BL}}{330}$$

where W = weight in pounds, HG = heart girth in inches, and BL = body length in inches. Estimating body weight is important because horses need to be fed based on a percentage of their body weight. Mature, idle horses and mares in late gestation will eat 1.5 to 2.0 percent of their body weight. Mares in early lactation and growing horses will eat 2.0 to 3.0 percent of their body weight. Working horses will eat 1.5 to 3.0 percent of their body weight.

1. The _____ of the horse's mouth are quite mobile and help in sucking and prehension of food.
2. The _____ is an important _____ organ and is needed for mastication and swallowing.
3. _____ glands produce up to 10 to 12 liters of saliva each day.
4. The _____ lies close to the skin on the bottom and left side of the neck and opens into the _____
5. The horse's _____ is small and food remains there only about _____ minutes.
6. The majority of nutrient absorption occurs in the _____ .
7. The large intestine is composed of the _____ and _____ .
8. A _____ weigh tape is used to estimate body weight.

Most horses receive their daily ration in two parts: 1) roughage (from hay or pasture) and 2) concentrates. The concentrate portion contains grain and may include a protein supplement, minerals and vitamins. It can include bran, cane molasses or dehydrated alfalfa, depending on the horse's needs.

Once the horse owner determines the needs of the horse or horses from a nutrient requirement table, the horse owner must next decide how much and what kind of roughage to feed as well as the correct concentrate mixture and the amount of it needed to supply the nutrients not present in adequate amounts in the roughage.

FEEDS AND FEED COMPOSITION

Feeds for horses are typically divided into five groups:

Roughages Concentrates Protein supplements Minerals Vitamins

Feed composition tables can be found in a variety of books and on websites. These feed composition tables are often based on the feed composition tables found in the "The Nutrient Requirements of Horses" written by the National Academy of Sciences. These tables provide some average feeding values for the common feeds used for horses in terms of dry matter, digestible energy (DE), crude protein (CP), calcium (Ca), phosphorus (P) and vitamin A. The tables often classify the feeds as roughages, concentrates, protein supplements and mineral supplements.

Table 2. Feed Composition for a Few Common Horse Feeds						
Feed	Dry Matter (%)	DE (MCal /lb)	CP (grams /lb)	Ca (grams /lb)	P (grams /lb)	Vitamin A (1000IU /lb)
Roughage						
Alfalfa, early bloom	90.5	1.02	82	5.81	.86	23.00
Alfalfa, full bloom	90.9	.89	71	4.90	.99	10.74
Orchard grass, early bloom	89.1	.88	52	1.09	1.36	6.08
Orchard grass, late bloom	90.6	.78	35	1.09	1.22	3.29
Timothy, early bloom	89.1	.83	44	2.04	1.13	8.51
Timothy, late bloom	88.3	.72	32	1.54	.59	7.23
Fescue, full bloom	91.9	.86	54	.81	1.32	8.73
Concentrates/Protein supplements						
Barley	88.6	1.49	53	.23	1.54	.37
Corn	88.0	1.54	41	.23	1.27	.98
Oats	89.2	1.30	54	.36	1.54	.02
Wheats, red	88.4	1.55	52	.14	1.77	---
Wheat bran	89.1	1.33	70	.59	5.13	.48
Soybean meal	89.1	1.43	202	1.59	2.86	---
Mineral Supplements						
Limestone, CaCO ₃	100	---	---	178.67	.18	---
Oyster shell	99	---	---	170.64	.31	---
Bone meal, steamed	97	---	---	135.12	56.58	---

Horse owners use feed composition values to match what a feed supplies with the requirements of a horse or horses. Horse owners can do this by performing the calculations by hand or by using some type of computer program to calculate how much and what to feed to meet the nutritional requirements of the horse or horses.

IMPORTANCE OF DRY MATTER AND NUTRIENT CONCENTRATION

Most grains and hays contain 88 to 90 percent dry matter. If horses receive insufficient dry matter, they may become bored and chew on their stalls and eat bedding. If the feed has too much bulk and not enough nutrition (excessive amounts of fiber or water), a horse might not be able to eat enough to satisfy its nutritional requirements for energy, protein, minerals and vitamins.

MATH OF FEEDING

Formulating an adequate ration for a horse is simple if these steps are followed:

Know what the horse requires.

Know what kind of feed will fill those requirements economically.

Know what feeds are palatable.

Know how much of a given feed the horse can eat.

Know how to calculate the amount of a nutrient in a feed.

The most common feeding problem confronting horse people is figuring what amount of a given nutrient is in a mixed ration. Referring to feed composition tables will show how much protein, digestible energy or calcium is in corn or oats, but will not be specific for a mixed feed of unequal parts of corn, oats and soybean meal.

To figure the nutrient content of a ration, multiply the pounds of each of the feeds in the mixture (corn, oats, soybean meal and so on) by the level of the nutrient (digestible energy, protein, calcium and so on) that each feed contains. Total the amounts obtained in the mixture and divide by the total pounds to get an average level of the each nutrient in each pound of feed. For example, to find the average protein in a mixture that is 200 pounds of oats and 100 pound of soybean meal, the calculations would be as follows:

200 pounds oats X 54 grams protein per pound = 10,800 grams of protein

100 pounds soybean meal X 202 grams protein per pound = 20,200 grams of protein

31,000 grams protein total / 300 pounds = 103 grams protein per pound

Where a single feed such as alfalfa is involved, the math is easier. For example, to calculate the amount of daily protein supplied by 10 pounds of alfalfa (early bloom) calculate as follows:

10 pounds alfalfa X 82 grams protein per pound = 820 grams of protein

The calculations for digestible energy are similar.

10 pounds of alfalfa X 1.02 Mcal per pound = 10.2 Mcal of digestible energy total

Using Table 1, you can see that if an 1,100-pound horse doing light work was being fed 10 pounds of alfalfa per day, the amount fed would fall way short of the horse's nutritional needs.

ROUGHAGES

Roughages include alfalfa hay, grass hays, clovers, lespedeza, timothy, fescue, bromegrass, prairie hay and pasture. Adequate amounts of roughage in the ration decrease the risk of colic and laminitis. Roughage also helps maintain the correct calcium-to-phosphorus ratio, because grain is low in calcium and because roughages -- especially legumes like alfalfa -- are high in calcium.

Adequate hay in the ration of horses kept in stalls also is beneficial because they eat it over a longer timespan than it would take to eat grain. This helps prevent vices such as wood chewing (cribbing), which horses do when bored or when they lack roughage.

A good rule of thumb is to feed at least one pound of hay per day for every 100 pounds body weight of the horse. For example, a 1,000-pound horse would be fed about 10 pounds of hay per day.

Mature, idle horses in good condition, fed excellent hay at the rate of about two pounds per 100 pounds of body weight, may not need any grain added to their ration. Growing or working horses, mares during late pregnancy, and mares during lactation need grain and other concentrates in addition to the roughage. Of course this rule of thumb depends on the nutrient levels in the hay being fed.

Selecting good hay: The most important consideration in selecting a dry roughage (hay) is that it be free of dust and mold. Early-cut, properly cured hays are preferred. These can be identified by color, head development on grass hays, leaf-to-stem ratio, and size of stems in legumes. Bales should be broken to check for dust and moldy odor. Legume hays are higher in protein and minerals and are more palatable than grass hays.

Alfalfa hay: When properly cured, alfalfa is the best of the legumes from a nutrient standpoint. Its high protein, calcium and vitamin content make it especially useful in balancing rations for brood mares and young growing horses.

Timothy: Timothy hay is popular for horses. It can be grown in a wide range of climates, cures easily, has a bright color, and it is free from dust and mold. Since timothy is low in protein, it is a better feed for mature horses than for stallions, mares or young growing stock. When fed as the only roughage, timothy should be supplemented with protein or a grain. Other hays provide a satisfactory substitute for timothy, so horse owners do not need to make a special effort to obtain timothy hay. Mature, late-cut timothy is a poor feed.

Pastures: Grass is the natural feed for horses. No one feedstuff is as complete in nutrients as green pasture grown on fertile soil. Grass reduces the cost of feeding, and furnishes minerals and vitamins that are sometimes lacking. Hardworking horses will need supplemental energy feeds because of the high water content of grass. Dry grass is usually low in protein and vitamins, and heavy stocking rates pose a parasite problem. Pasturing can reduce stable vices caused by boredom or mineral deficiencies. Pasture rotation reduces the problem of parasites. Rotational grazing will also reduce patch grazing. A horse requires two to five acres of pasture for maintenance. .

CONCENTRATES

Concentrates are high-energy feeds. Grains are concentrates used with hay to regulate energy intake of the animal equal to work performed, growth made, or reproductive performance. Medium-sized, hardworking horses may need as much as 12 pounds or more of grain and an equal amount of hay daily to maintain body weight. By contrast, a mature nonworking horse may get fat on grass alone. Horses like grain. Some even bolt it to the point of choking. Most grains are improved by grinding or rolling, but should not be ground fine. Frequent feedings in small amounts are preferred. Concentrates for horses include oats, corn, grain sorghum, barley, wheat, wheat bran and cane molasses.

Oats: Many horse owners prefer oats and so do horses. The bulky nature of oats permits liberal use with minimum danger of digestive disorders. Even picky horses find oats to their liking. Oats are higher in protein than most grains, making them useful with low-protein grass hays. Variability in quality depends on the Federal grade. Grades 1 and 2 are the best buy. Although oats are an excellent horse feed, when cost and/or convenience dictate, most rations can be formulated satisfactorily without them.

Corn: Corn is a good feed and is used extensively in the Midwest. Corn is higher in energy than oats. Corn is especially useful for improving the condition of thin horses and maintaining condition on those at hard work. It is often a good buy on a per unit of energy basis. Because of its high energy content and low fiber, corn must be fed with more care than oats to avoid colic. Corn and oats in equal parts make an excellent grain ration. Corn can supply all of the grain when fed according to the work that horses are performing and when large amounts are not given at one time.

Barley: Barley is a very satisfactory feed when ground and fed as described for corn. Fifteen percent wheat bran or 25 percent oats fed with barley almost eliminates the risk of colic.

Wheat: Wheat is seldom fed to horses except in the Pacific Northwest. It can be fed as about one-third of the grain ration when fed with a bulky feed. Wheat should be rolled or coarsely ground.

Wheat bran: Wheat bran is a highly palatable, slightly laxative and bulky feed. Horse owners have long preferred bran for animals stressed by extreme fatigue, foaling or sickness. Bran is higher in protein content than oats, wheat, barley or corn

PROTEIN SUPPLEMENTS A mature horse's need for protein is relatively low and is easy to meet with practical rations. With the exception of milking mares, most average-size horses need from 3/4 to 1 pound of digestible protein (DP) daily (one pound equals 455 grams). Supplementing rations of young growing horses is insurance against an amino acid deficiency. Protein supplementation is needed when poor quality, late-cut grass hays are fed. Common protein supplements used for horses include linseed meal, soybean meal and cottonseed meal. Soybean meal is a common protein supplement for horses. It is higher in protein, has a better balance of amino acids, and is often cheaper in the Midwest than other supplements. Commercial protein supplements vary in composition, protein level and price. They often contain needed minerals and vitamins and are convenient for those who do not wish to formulate their own horse rations. Some may be expensive. Commercial supplements are usually formulated for a specific feeding program. They should be fed according to directions.

MINERALS Rations should contain more calcium than phosphorus. Calcium to phosphorus ratios between 1.1:1 and 2:1 are within an acceptable range.

Trace mineralized salt contains no calcium, and phosphorus and dicalcium phosphorus are not a source of selenium, manganese or other trace minerals. A way to supplement horses with calcium or phosphorus is to mix trace mineralized salt with limestone or dicalcium phosphate. Limestone and dicalcium phosphate are rich but unpalatable sources.

SOME GUIDELINES FOR FEEDING HORSES

Since feeding horses is as much an art as it is a science, the following guidelines help horse owners successfully feed their horses.

Feed only quality feeds.

Feed balanced rations.

Feed higher protein and mineral rations to growing horses and lactating mares.

Use nonlegume hays for adult horses.

Feed salt separately, free-choice.

Feed calcium and phosphorus free-choice.

Horses will eat better, digest food better and be less likely to develop colic if exercised regularly.

Feed according to the individuality of horse.

Feed by weight, not volume.

Minimize fines (small particles) in a prepared ration.

Offer plenty of good, clean, cool water free-choice. Water should be no colder than 45 F.

Change feeds gradually.

Do not feed grain until tired or hot horses have cooled and rested.

Feed before work.

Feed all confined horses at least twice daily.

Give half the hay allowance at night, while horses have more time to eat and digest it.

Commercial feeds may actually provide nutrients such as trace minerals, vitamins and protein supplements in a less expensive form than the individual horse owner can provide. But a word of warning should be noted. Aside from adequate nutrition, no nutrient or supplement will do any of the following: make the hoof grow faster and stronger; cure a curb, spavin, ringbone or other problems; increase conception in mares or libido in stallions; increase intelligence; prevent colic; or cure heaves, sleeping sickness and EIA. In short, horse owners should not be fooled into buying magic from a bottle, bag or a can.

What should horse owners do to maintain and manage the health of their horses?

Horse owners need to be able to recognize a healthy horse by observing horses regularly and learning to recognize the signs of good health. The immune system is essential to the health of the horse. Also, horse owners control many factors which keep horses healthy.

SIGNS OF HEALTH

For the horse owner or anyone working with horses, the first step in health management is the ability of the horse owner to recognize a healthy horse. Indicators of good health include:

- Good body condition
- General appearance and behavior
- Glossy hair coat
- Normal hoof growth
- Bright fully open eyes without discharge
- No signs of dehydration (loose skin, sunken eyes)
- Normal feces and urine
- Pink mucous membranes
- Normal heart rate, respiratory rate and body temperature
- Proper body weight for age and type

A bright, actively interested horse can be recognized at a glance. The horse's attitude will be alert, inquisitive and attentive. The horse should not have the dull, lethargic look that can come with overtraining, overuse or ill health. When in pastures, lots and paddocks, horses normally will try to stay in a group, so one off by itself may be hurt or ill. Normal, healthy horses also chew evenly with both sides of their mouth and show enthusiasm for eating.

HORSE HEALTH PROGRAM

Keeping a horse healthy requires attention to details, but prevention is always better than treatment. Here are a few minimum guidelines essential for normal horse care.

- Shelter from wind and weather with trees, a shed, or barn is adequate in most climates.
 - Provide a safe environment free of hazards such as nails, barbed wire, broken fences, glass windows and unsecured pesticides.
 - Supply free access to adequate, clean water.
 - Maintain a routine feeding and exercise schedule.
 - Feed but do not overfeed two or three times per day.
 - Supply hay or pasture at 1.5 to 2.5 percent of body weight per day.
 - Feed the proper level of nutrients and use a commercial concentrate feed mixture if necessary to supply the nutrients needed.
 - Weigh feed rather than feeding on the basis of volume.
 - Use hays and feeds free of dust and mold.
 - Change feeds gradually over a 10- to 14-day period, when necessary.
- Conduct regular dental checkups and float teeth to prevent mouth problems. Deworm regularly.
- Assess parasite load with occasional fecal floatation tests and treat accordingly.
 - Vaccinate on a schedule as recommended by a local veterinarian.
 - Provide regular hoof care.

T

EMPERATURE



normal
37.5 - 38.5C

To check: The best way to take the horse's temperature is rectally with a digital thermometer.

- ▶ Always clean the thermometer after use
- ▶ Environment can affect reading by 0.5-1C
- ▶ Exercise, stress or infections raise temperature

P

ULSE



normal
38-40 beats/min

To check: Take your horse's pulse from an area under the jaw, beneath the tail or its bone or from an area on the side of the foot.

- ▶ Foal 70-120bpm; Yearling 45-60bpm
- ▶ Count for 15 seconds & multiply by 4

R

ESPIRATION



normal
8-15 breath/min

To check: Watch or feel your horse's ribcage/nosrils for one minute. Be sure to count 1 inhale and 1 exhale as one breath (not as two).

- ▶ Respiration rate should not exceed pulse rate
- ▶ Wait at least 30min after work to check rate

TPR



GUT SOUNDS

normal
gurgling noises call vet
absence of noises

To check: Press your ear up against your horse's barrel just behind his last rib. Be sure to check from both sides.

DEHYDRATION

- ▶ Horse's drink a minimum of 20ltr of water/day
- ▶ Horse's in heavy exercise or hot conditions can drink up to 70ltr of water/day

Pinch

the skin on your horse's neck
it should
flatten back in
1 sec

CAPILLARY REFILL TIME

To check: Lift your horse's upper lip up and firmly press your thumb against his gums for 2 seconds to create a white mark.

normal
refill time is
1-2 sec

What is first aid for horses?

Equine first aid is the emergency care and treatment given to an injured or ill horse until medical or surgical treatment can be administered when the veterinarian arrives, or until the horse can be transported to a facility where help is available. The objectives of first aid include: assistance in a life-threatening situation; recognition of serious or potentially serious, life-threatening conditions such as hemorrhage (bleeding), fracture, dehydration and shock; and use of measures to curtail further damage and prevent complications or additional injuries.

VITAL INFORMATION

To assist a veterinarian in evaluating an emergency situation over the phone, some preliminary information is helpful. Temperature, heart rate (pulse), gut sounds and respiratory rate are vital information. This information should be recorded on a piece of paper instead of relying on memory. Also, a description of what happened to create the emergency can help the veterinarian.

Temperature:

Normal temperature range for a horse is between 99 and 101.5 F. Glass or electronic rectal thermometers are available at tack/feed stores and in veterinary supply catalogs. After shaking down a glass thermometer or activating an electronic one and lubricating the tip with a bit of petroleum jelly, the thermometer is inserted into the anus to a depth of about 2 inches. After about 2 minutes the glass thermometer can be removed and read. An electronic thermometer beeps when ready to be removed and read. Infections typically increase the horse's temperature.

Heart rate/pulse:

An average resting heart rate for a horse is between 30 and 40 beats per minute (BPM). To listen to the heart, a stethoscope is placed against his chest wall, just beneath his left elbow, and then pushed forward and under the elbow as far as possible. At this point, the "lub-dub" sound of the heartbeat can be heard. To get the heart rate, the number of beats in a 15-second period is counted. This number is multiplied by 4 to determine the BPM. Infections (fever), exercise and hemorrhage increase the heart rate.

Gut sounds:

Normal gut (intestine) sounds heard with a stethoscope are two to four soft bubbles or gurgles per minute, and one loud grumbling sound every two to three minutes. To listen to gut sounds, the stethoscope is held against the horse's lower flank for at least 1 minute. Then the stethoscope is moved higher on the flank. Next the stethoscope is moved to the other flank, and the procedure repeated. If gut sounds are loud and/or more frequent, the horse may be experiencing mild colic. If nothing is heard, the horse may be experiencing severe colic. Silence indicates no gut movement.

Respiration rate:

Normal respiration rate for horses is 10 to 20 respirations per minute (RPM). Fever, pain, exercise and hot weather can all increase the respiration rate. Respiration rate can be determined by closely watching the horse's chest or nostrils for movement, by placing the hand on the rib cage, or by listening to respiration sounds by placing a stethoscope on the outside on the trachea (windpipe). Inhalations and exhalations should be slow and even. To determine the respiration rate, the number of expirations for 15 seconds is multiplied by 4 to obtain the respirations per minute.

FIRST AID KIT

Having access to the right items during an emergency can never be underestimated. Contents of first aid kits for horses will vary, but here are some of the common items that could be included:

- Antibacterial ointment and/or spray
- Bandage material
- Clean towels
- Disinfectant
- Epsom salts
- Flashlight
- Fly repellent
- Hoof pick and knife
- Large syringe
- Medications (current)
- Petroleum jelly
- Rubbing alcohol
- Scissors
- Shoe pullers
- Soap
- Stethoscope
- Thermometer with string and clip
- Tweezers/forceps

Larger items that may not fit in your first aid kit but are good to have on hand

- Clean towels
- Epsom salts
- Blankets
- Clean Bucket
- Emergency Markers
- Liniment

Once the first aid kit is assembled, the horse owner must be sure he or she knows how to properly use its contents in an emergency. As the horse owner learns more about first aid for horses, other items can be added to the first aid kit. Finally, the kit or kits must be kept where they can be found and used -- in the horse barn or in a trailer.

WOUNDS

A wound is a disruption or break in living tissue caused by physical means. Managing wounds requires recognizing their characteristics, types and seriousness. Wounds that bleed profusely or that are infected require immediate attention. With many wounds, the horse's temperature is usually normal, but temperature will be elevated when infection is present and below normal if the horse is going into shock. The pulse or heart rate is often normal even with severe wounds; however, it may be increased if blood loss is excessive. The color of mucous membrane in the mouth and around the eyes will change from a normal, healthy pink, to a pale color in cases of excessive blood loss from wounds.

Wounds can be characterized as open or closed. Types of open wounds include incisions, lacerations, abrasions, punctures, perforations and penetrations. Open wounds can be divided into three classes:

1. Clean
2. Contaminated
3. Infected

A clean wound is a sterile or noncontaminated wound less than six hours old. A contaminated wound is less than six to eight hours old and, despite the obvious presence of bacteria, the wound is not infected. An infected wound is usually older than six to eight hours, and bacterial activity has infected the wound. This results in pus and dead tissue. Additionally, septicemia (the presence of bacteria or their toxins in the blood) may occur.

Incisions are produced by a sharp instrument such as glass or a scalpel. Lacerations are a cut (as thick as the skin) or tear caused by wire, wood, teeth or other objects. Abrasions are the same as lacerations, but they only involve part of the skin thickness. Punctures are made by sharp objects such as a nail. Perforations are wounds caused by a sharp object which penetrates the skin into a hollow organ such as the intestinal tract or the bladder. Penetrating wounds go through the skin into underlying tissues. Closed wounds include contusions, blood-filled hematomas, pinkish fluid-filled seromas, abscesses or traumatic hernias.

Veterinarians need to examine serious wounds within the first six to eight hours after the injury occurs. When suturing is needed, the wound has the most chance of healing if done within this time period. After this time period, wounds that are sutured invariably break down, so older wounds are often left to heal by granulation after cleaning and removing the debris from the wound.

Granulation is the natural healing process where a scab forms and healing occurs without a bandage. After a cut, the healing process of the body fills in to close the gap by the process of granulation. Granulation occurs as loops of newly formed capillaries form on a wound surface and fibroblasts (connective tissue cells) enter the cut.

When wounds occur, a veterinarian will recommend that a tetanus toxoid booster should be given if the horse has not had one within six months. Also, if the vaccination status of the horse is unknown or uncertain, the horse owner should administer both tetanus toxoid and tetanus antitoxin.

Colic What is colic? There are 3 kinds of Colic: Gas, Impaction and Twist Symptoms of Colic include

A. Mild: frequent up and down, looking at ides, no appetite, depressed

B. Severe: Rolling, Pacing, Sweating

It is important to spend a few moments to assess the horse in it's stall or environment. If attempting to roll in their stall, try to walk while some calls the vet and do TPR (Temperature, Pulse, Respiration)

Horse owners should always remember to maintain a professional, working relationship with a veterinarian who can provide advice and guidance and help when needed.

Horse Health Questions

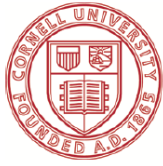
List 5 things you should check to see if your horse is healthy.

What is the normal temperature for a horse? _____

What is the normal pulse rate for a horse at rest? _____ beats per _____.

What is the normal respiration rate for a horse at rest? _____ breathes per _____.

What are some signs that your horse might notr be feeling well.



Cornell University
Cooperative Extension
Cattaraugus County

Education Center

Education Center

28 Parkside Drive
Ellicottville, NY 14731
t. 716-699-2377
f. 716-699-5701

cattaraugus.cce.cornell.edu

4-H Youth Horse Program

COMMITMENT TO EXCELLENCE

- I believe that participation in the 4-H Horse Program should demonstrate my own knowledge, ability and skill as a caretaker and exhibitor of equines.
- I will do my own work to my fullest extent that I am safely capable and will accept advice and support from others.
- I will not use abusive, illegal, fraudulent, deceptive or questionable practices in the feeding, fitting and showing of my animal(s), nor will I allow my parents or any other individuals to employ such practices with my animal(s).
- I will read, understand and follow the rules put forth by the Cattaraugus County 4-H Horse Program, without exception, for all horse shows in which I am a participant, and I will ask that my parents and supervisors of my project do the same.
- I wish for my horse project to be an example of how to accept what life has to offer, both good and bad, and how to live with the outcome.
- I realize that I am responsible for:
 1. The grooming, and care of my project animal(s),
 2. The proper care and safe, humane treatment of my animal(s),
 3. The safe handling of my animal(s) at all times,
 4. Demonstrating strong moral character as an example to others.
 5. Supporting and respecting all the youth and volunteers at any and all 4-H events

4-H Youth's Signature

Date

Parent/Guardian Signature

Date

4-H Educator's Signature

Date

NYS 4-H HORSE CERTIFICATE

____ Personally owned

____ Family owned

____ Non-owned
(See non-ownership policy/reverse side)

Date _____ 20____



Name of Animal _____

Date Animal Born (Mo.) _____ (Day) _____ (Yr.) _____ Sex M ☐ G ☐

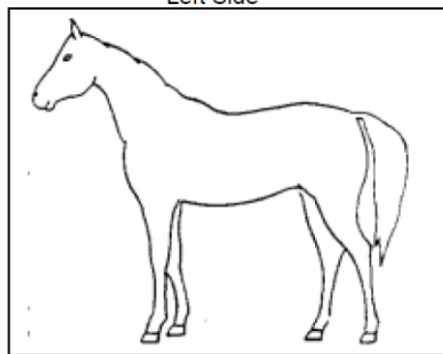
Name of Sire _____

Name of Dam _____

Registry/Breed _____ Reg. No. _____

Date of Purchase _____ Member County _____

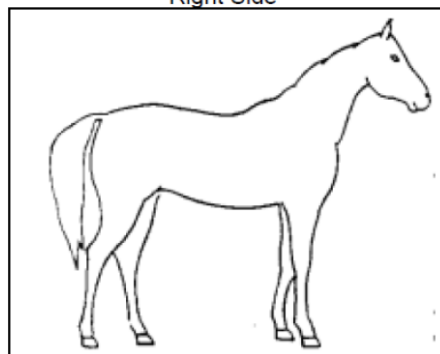
Left Side



Draw markings on each side and face identical to your horse



Right Side



Color _____

Owner _____

Height _____

Address _____

Weight _____

(Zip) _____

Signature of Owner _____

This animal has been officially designated as the 4-H project animal of the 4H'er as of June 1 of the current project year.

Name of 4-H'er _____

4-H Leader Name _____

Address _____

Address _____

_____ Zip _____

_____ Zip _____

Telephone _____ Email _____

Telephone _____ Email _____

Member's Signature _____

Leader's Signature _____

Parent/Guardian _____

Educator _____ County _____

Address _____

Address _____

_____ Zip _____

_____ Zip _____

Telephone _____ Email _____

Telephone _____ Email _____

Parent/Guardian Signature _____

OCE Educator Signature _____

Remember to include a copy of your current Coggin's test - test dated this year or last year. *Proof of rabies vaccination required - must be current, given more than 14 days prior to arrival at fairgrounds, and remain current for duration of the Fair.

See reverse side for important information