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AgriLIFE EXTENSION
Texas A&M System

Feeding and Caring for a Yearling 4-H Futurity Horse

Teri Antilley and Dennis Sigler*

*Extension Program Specialist–Equine, and Professor and Extension Horse Specialist
The Texas A&M University System

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All photos courtesy of Teri Antilley, Sarah Owen, and Dennis Sigler

Introduction

In a 4-H yearling futurity project, a 4-H club member trains and cares for a yearling horse for the purpose of entering that horse into competition. Participating in yearling futurity projects can help young people build confidence and develop positive character traits such as responsibility and a good work ethic. A successful yearling project could also produce a horse that can be enjoyed for years to come.

A horse is considered a yearling on January 1 of the first calendar year after its foaling date. However, in many yearling futurity projects, the horse begins training immediately after it has been weaned.

Special care must be taken with these young horses because many of them are kept in stalls and given hay and concentrate rations instead of being allowed to graze on grass throughout the day. They also are often subjected to forced exercise with little or no opportunity to roam freely.

The keys to maintaining a healthy horse and having a successful horse project are giving the yearling proper nutrition; regular coat, hoof, and health care; adequate exercise; and consistent training.

Nutrition

Young horses need to be fed a balanced diet. This means that they are given enough nutrients in hay and grain and that the nutrients are in the proper relationship to each other. Without a balanced diet, a horse's growth and development may be hindered, which may lead to unsoundness later in life.

Selecting hay and grain

Horses confined in stalls or dirt pens are commonly fed forage in the form of hay. Hay can be made from grasses, such as coastal bermudagrass, timothy, and orchardgrass, or from legumes, such as alfalfa, red clover, and birdsfoot trefoil. Good-quality hay:

- Has more leaves than stems
- Smells and appears fresh
- Has a natural color
- Is soft and pliable to the touch
- Has few seed heads
- Is free of insects, mold, dust and weeds.[12]

When feeding alfalfa hay to horses, make sure that it is free of blister beetles, which produce a toxin that can irritate a horse's digestive tract and often can kill the animal.

High-quality hay gives the young horse the nutrients it needs for growth and development and lowers its chance of metabolic disorders such as colic.[5] If you are unsure about the quality of your hay, have it analyzed by a laboratory for protein, fiber, calcium, and phosphorus.

Activity: Selecting hay and grain

1. Match the name of the hay with the picture.

_____ Alfalfa _____ Coastal bermudagrass

2. Which hay is moldy? _____

3. Which hay has smaller stems? _____

4. Which hay looks cleaner (free of mold, dust and/or weeds)? _____

Reading the feed tag

A balanced concentrate is a mixture of grains, minerals, and vitamins that meets the nutrient requirements of a horse when it is fed with good-quality hay. Oats, corn, and barley can be used to make a balanced concentrate.

Many feed manufacturers carefully formulate their concentrates to meet the individual needs of young, growing horses; broodmares; stallions; performance horses; or mature, geriatric horses. A single grain is not a balanced feed. Some horse owners mix or "cut" a balanced commercial feed with a single cereal grain, such as oats. This addition upsets the balance of the concentrate and can disrupt a young horse's growth and development.[7]

Horses need six types of nutrients: water, carbohydrates, fats, protein, minerals, and vitamins.

Carbohydrates: Carbohydrates provide the horse with energy.[12] Feed tags do not list energy in the form of carbohydrates. Instead, they list the percentage of fiber in a concentrate. The higher the fiber content, the lower the amount of energy provided; the lower the fiber content, the higher the amount of energy.

Fats: Fats also provide horses with energy. Feed tags list fat as crude fat. Most feeds contain about 3 percent natural fat. If a feed tag indicates that it contains 8 percent fat, the feed manufacturer has added 5 percent.[7]

Protein: Protein helps build strong muscles. Amino acids are the building blocks of protein; of them, lysine is the most important for horses. Without the proper amount of lysine, all the other amino acids needed for growth become less effective.[2,10,13] Threonine is likely to be the second most important amino acid and will also limit growth if not provided in sufficient amounts.[8]

Feed tags list protein as crude protein (CP); they may not list the amount of lysine included. Concentrates will supply enough lysine and threonine for weanlings if they contain 16 percent crude protein from good-quality protein sources such as soybean meal.[7]

Vitamins: Horses need very small amounts of vitamins, which are listed on feed tags in international units (IU).

Fat-soluble vitamins, A, D, E, and K are stored in body fat cells and in the liver. Feed tags commonly list the amount of vitamin A.

Water-soluble vitamins, such as vitamins C and B, usually are not added to the diet, because they are present in feedstuffs or are synthesized by the horse.

Minerals: Calcium and phosphorus help form and maintain strong bones. For the concentrate to be balanced, these minerals must be provided in the proper ratio. A feed should have at least as much calcium as phosphorus, which is a ratio of at least 1:1.[7]

Other minerals that might be listed on a feed tag are copper, selenium, and zinc.

Activities: Reading the feed tag.

Feed A	
Crude protein	16.00%
Crude fat	6.00%
Crude fiber	10.00%
Calcium	1.00%
Phosphorus	0.50%

Feed B	
Crude protein	10.00%
Crude fat	3.50%
Crude fiber	15.00%
Calcium	0.50%
Phosphorus	1.50%

5. Which feed has enough protein for a weanling?

   _____ Feed A _____ Feed B

6. How much fat was added to Feed A and to Feed B?

   Feed A _____ % - 3.00% = _____ %

   Feed B _____ % - 3.00% = _____ %

7. Which feed contains a proper ratio of calcium to phosphorus?

   _____ Feed A _____ Feed B

Calculating a young horse's body weight

The amount of hay and grain fed to a horse should be based on the horse's body weight. A scale measures a horse's weight most precisely. If you do not have a large animal scale, use one of the formulas[15] that follow to calculate your horse's body weight:

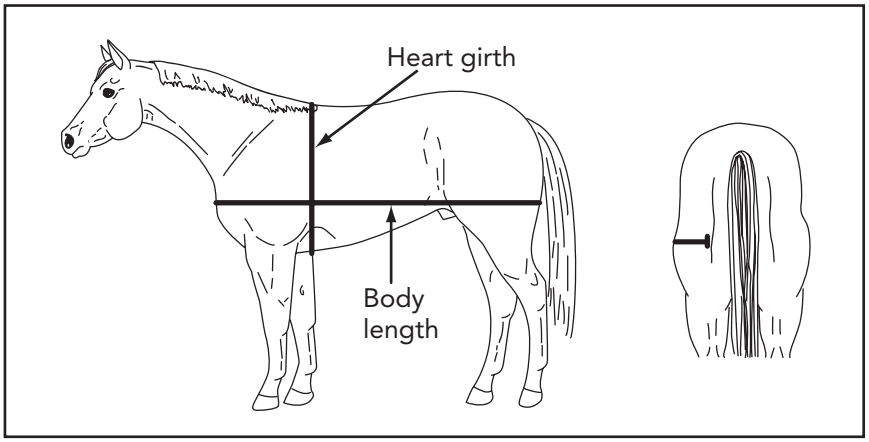
Weanlings: $\frac{(\text{Heart girth (inches)} \times \text{Heart girth (inches)} \times \text{Body length (inches)})}{280} = \text{Weight in pounds}$

Yearlings: $\frac{(\text{Heart girth (inches)} \times \text{Heart girth (inches)} \times \text{Body length (inches)})}{301} = \text{Weight in pounds}$

To measure the distance around the horse's heart girth, place a plastic measuring tape across the highest part of the withers and around the belly (Fig. 1).

To measure the horse's body length, measure the length of the horse from the point of the shoulder along the horse's side to the point of the buttock. This step usually requires two people.[6] (Fig. 1).

Figure 1. Measuring the heart girth and body length of a horse.



*Adapted from Gibbs and Householder (n.d.).

Activities: Calculating a horse's body weight.

8. Calculate the weight of a yearling with the following measurements:

   Heart girth = 55 inches Body length = 70 inches

   $\frac{(\_\_ \times \_\_ \times \_\_)}{301} = \_\_\_\_\_$ pounds

9. Measure your horse and calculate its body weight.

   My horse is a _____. (weanling or yearling)

   Heart girth = inches Body length = inches

   $\frac{(\_\_ \times \_\_ \times \_\_)}{?} = \_\_\_\_\_$ pounds

Calculating the amount of hay and grain needed

All horses need plenty of roughage, which can be hay or grass from a pasture. In general, a horse eats about 1.0 percent of its body weight in good-quality hay or pasture.[12] As a horse ages, the amount of hay and grain it can safely eat per day changes. Table 1 shows the approximate amounts that horses can eat at different ages. The amounts are listed as percentages of a horse's body weight. This amount should be divided into at least two meals that are spaced evenly apart.

Table 1. Approximate amount of feed eaten by horses daily as a percent of body weight

Age of horse	Forage (hay or grass)	Concentrate (grain)	Total
Weanling foal, 6 months	0.5–1.0	1.5–2.0	2.0–3.0
Yearling foal, 12 months	1.0–1.5	1.0–2.0	2.0–3.0
Long yearling, 18 months	1.0–1.5	1.0–1.5	2.0–2.5

*Adapted from NRC (1989).

Activities: Calculating the amount of hay and grain needed.

10. Using 1.0% forage and 1.5% concentrate, calculate the amount of hay and grain given per day to a weanling weighing 500 pounds. **(Hint: When multiplying a number by a percentage, move the decimal point over two places to the left.)**

    500 pounds of body weight x _____ % Forage = _____ pounds of forage

    500 pounds of body weight x _____ % Concentrate = _____ pounds of concentrate

11. How much hay and grain **per feeding** should be given to the weanling in Question 10 if it is fed twice a day?

    _____ pounds of forage ÷ 2 feedings = _____ pounds of forage per feeding

    _____ pounds of concentrate ÷2 feedings = _____ pounds of concentrate per feeding

12. Calculate the amount of hay and grain that should be given to your horse each day.

    Pounds of body weight x _____ % forage = _____ pounds of forage

    Pounds of body weight x _____ % concentrate = _____ pounds of concentrate

13. How much hay and grain **per feeding** should be given to your horse if it is fed twice a day?

_____ pounds of forage ÷ 2 feedings = _____ pounds of forage per feeding

_____ pounds of concentrate ÷ 2 feedings = _____ pounds of concentrate per feeding

Weighing hay and grain

After calculating the amount of hay and grain needed for a horse, weigh them on a small scale. If you use a bucket to hold the hay or grain being weighed, weigh the empty bucket and add that amount to the weight of hay or grain needed for the total weight. See the example below.

Amounts needed **per feeding** for a weanling weighing 500 pounds

2.5 pounds of forage (hay) 3.75 pounds of concentrate (grain)

Weight of the bucket = 2 pounds

	2.5	pounds = Weight of hay needed
+	2.0	pounds = Weight of bucket
	4.5	pounds = Total weight for the hay and bucket

	3.75	pounds = Grain weight needed
+	2 .0	pounds = Bucket weight
	5.75	pounds = Total weight for grain and bucket

Activity: Weighing hay and grain.

14. Based on the calculations you made for your horse in Question 13, weigh out the proper amount of hay and grain that horse needs for one feeding.

Amounts needed per feeding for the horse:

_____ pounds of forage (hay) _____ pounds of concentrate (grain)

Weight of the bucket = _____ pounds

	pounds = Weight of hay needed
+_____	pounds = Weight of bucket
	pounds = Total weight of the hay and bucket

	pounds = Weight of grain needed
+_____	pounds = Weight of bucket
	pounds = Total weight of the grain and bucket

Scoring body condition

Some horses are easy keepers, meaning that they do not need a lot of feed to maintain their weight. Other horses require more than average amounts of feed to maintain their weight. Therefore, the amount of hay and grain a horse needs may differ slightly from the amount of hay and grain it was calculated to need.

To determine whether your horse needs more, less, or the calculated amount of feed, monitor the horse's body condition using the condition score system. Table 2 provides descriptions of each body condition score.[9] See Figure 2 for the areas of a horse where fat is deposited. In halter futurity classes, judges will give higher rankings to a yearling horse if it is in a condition score of 6 or 7.

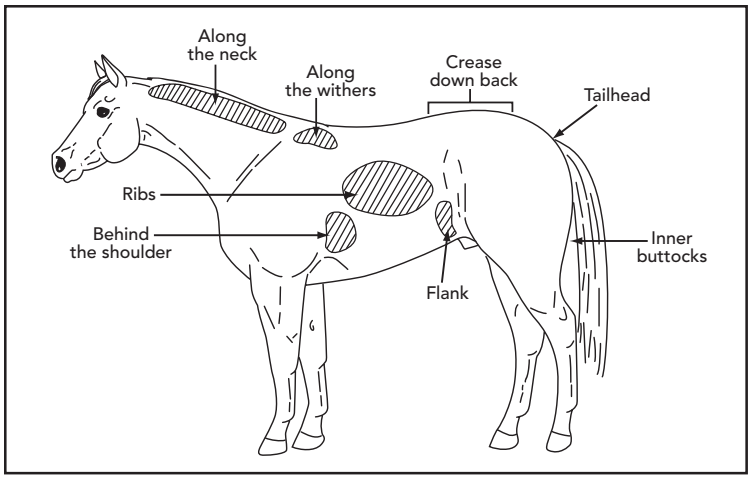


Figure 2. Areas of fatty deposits on a horse.

*Adapted from Henneke et al. (1983).

Table 2. Condition score system.*

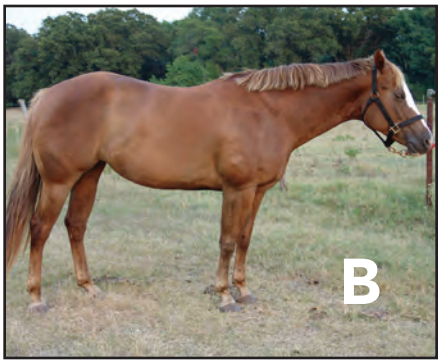
Score	Description
1	Poor. The horse is extremely emaciated. The spinous processes[1], ribs, tailhead, hook bones[2] and pin bones[3] project prominently. The bone structure of the withers, shoulders, and neck are easily noticeable. No fatty tissues can be felt.
2	Very thin. The animal is emaciated. Light fat covers the base of the spinous processes, and the transverse processes[1] of the lumbar vertebrae feel rounded. The spinous processes, ribs, tailhead, and hooks and pins are prominent. The structure of the withers, shoulders, and neck is faintly discernable.
3	Thin. Fat is built up about halfway on the spinous processes; transverse processes cannot be felt. There is a slight fat cover over the ribs. The spinous processes and ribs are easily discernable. The tailhead is prominent, but individual vertebrae cannot be identified visually. The pin bones are not distinguishable. The withers, shoulders, and neck are accentuated.
4	Moderately thin. A negative crease is along the back. A faint outline of the ribs is discernable. The tailhead prominence depends on the conformation; fat can be felt around it. The hook bones are not discernable. The withers, shoulders, and neck are not obviously thin.
5	Moderate. The back is level. The ribs cannot be distinguished visually but can be felt easily. The fat around the tailhead is beginning to feel spongy. The withers appear rounded over the spinous processes. The shoulders and neck blend smoothly into the body.
6	Moderate to fleshy. There may be a slight crease down the back. The fat over the ribs feels spongy. The fat around the tailhead feels soft. Fat is beginning to be deposited along the sides of the withers, behind the shoulders, and along the sides of the neck.
7	Fleshy. There may be a crease down the back. Individual ribs can be felt, but fat is noticeably filling between the ribs. The fat around the tailhead is soft. Fat is deposited along the withers, behind the shoulders, and along the neck.
8	Fat. There is a crease down the back. It is difficult to feel the ribs. The fat around the tailhead is very soft. The area along the withers is filled with fat. The area behind the shoulders is filled in flush. The neck is noticeably thickened. Fat is deposited along the inner buttocks.
9	Extremely fat. There is an obvious crease down the back. Patchy fat appears over the ribs. Fat bulges around the tailhead, along the withers, behind the shoulders, and along the neck. The fat along the inner buttocks may rub together. The flank is filled in flush.

* Adapted from Henneke et al. (1983).

[1] Backbone; [2] The point of the hip; [3] The point of the buttock

Activity: Body condition scoring.

Match each picture with a body condition score listed below.



_____ 3 _____ 5 _____ 7

Using the Condition Score System, score the body condition of your horse.

My horse has a condition score of _____. Date: _____

Coat care

Care for the horse's coat includes daily grooming, occasional baths, clipping, and the use of lights and blankets.

Grooming

Horses need to be groomed regularly. Brushing a horse removes dirt and brings the skin's natural oils to the surface, making the hair coat clean and shiny. Daily grooming also helps the horse learn to relax when being handled and enables the owner to check the animal for cuts or wounds.

The basic grooming tools are a rubber curry comb, a stiff bristle brush, a soft bristle brush, a mane and tail comb, and a hoof pick. Additional tools include a set of clippers, a soft towel or cloth, a rubber wash mitt, shampoo and conditioner, baby oil, and, if available, a horse vacuum.

Curry combs help break up mud and loosen dirt. They should be used in a circular motion over the muscular parts of the horse, such as the neck, shoulder, back, belly, and hip. Using a curry comb on the face and legs can be uncomfortable to the horse.

A **stiff bristle brush,** used in a flicking motion in the direction the hairs lie, helps remove the dirt loosened by the curry comb.

A **soft bristle brush** can be used over the horse's entire body; it helps remove fine dust and spreads the natural oils in the skin to the hair.

A **mane and tail comb** helps remove tangles from the mane and tail. Start combing the hair from the ends and work up to the base to prevent pulling out a lot of hair.

A **hoof pick** helps keep the hooves healthy by removing manure and other debris. See the section on hoof care for instructions on how to properly use a hoof pick.

Clippers provide a "finished" look to a horse that will be shown. Typically, the hairs trimmed are those around the muzzle, under the jaw, in the ears and the long hairs around the eyes (not the eyelashes), around the coronet band and on the back of the fetlock. Some horse owners clip a short bridle path of about 2 to 3 inches behind the ears to prevent the mane from tangling in the halter.

A **soft towel** or **cloth** removes find dust from the coat and helps spread the natural oils in the skin to produce a healthy shine in the coat.

A **rubber wash mitt, shampoo** and **conditioner** are used to bathe the horse (see the section on bathing).

Baby oil is used around the eyes, ears, and muzzle to highlight the horse's features at a show. Instead of bathing in cold weather, a horse can be rubbed with a hot towel soaked in water containing baby oil.[4]

A **horse vacuum** helps remove dirt and dead hair and keeps the horse clean with less bathing.

Bathing

Occasionally, horses may need to be bathed. Do not wash horses when temperatures dip below 50 degrees F. To bathe the horse:

1. Hose off the horse to wet it, starting at the legs and working up.
2. Use a mild soap or shampoo and work it into a lather throughout the coat, mane, and tail. A rubber wash mitt or curry comb can help spread the soap over the body.
3. Wash the horse's face with a damp sponge; avoid getting water in its ears.
4. Rinse the horse thoroughly with water, making sure no soap remains.
5. Conditioner can be applied to the mane and tail to keep them tangle free. Most conditioners must remain in the hair for a period and then must be rinsed out.
6. Use a sweat scraper to remove excess water from the horse's body after bathing.

Using lights and blankets

Each day, a horse usually needs 8 hours of darkness and 16 hours of continuous light, which can be a combination of artificial and natural light. Artificial lights can be used to improve a horse's hair coat and help keep it short during the fall and winter.

Place incandescent (clear or frosted) or fluorescent bulbs over or close to the stall, making sure that all power cords are out of the horse's reach. A timer can be set to turn the lights on and off.

If temperatures drop below 55 degrees F, the horses may need to be blanketed to stay warm. In addition to keeping the horse warm, blankets protect its coat from sun damage and help keep the hair clean.[11]

Activities: Grooming and the use of lights.

17. Match the name of the grooming tool with the picture.

_____ Mane and tail comb
_____ Hoof pick
_____ Curry comb
_____ Soft bristle brush
_____ Stiff bristle brush

18. Commit to grooming your horse well one or more times a day. Photograph the horse from the side before it has been groomed, and post the photo below. Then photograph the horse 1 month after the previous picture, and compare the differences between the two shots.

Before Date: _____

After (1 month later) Date: _____

19. Which time frame gives a horse 16 hours of light and 8 hours of darkness?
    a. Light from 7 a.m. to 10 p.m.
    b. Light from 6 a.m. to 10 p.m.
    c. Light from 10 a.m. to 10 p.m.

Hoof care

An important part of daily grooming is hoof care. Be careful when handling a horse's hooves, particularly if the horse is young and inexperienced. Follow these steps to care for your horse's hooves:

1. If the horse will stand tied quietly, make sure it is tied to a solid object using a quick-release knot. If the horse is not broke to tie, have someone else hold the horse while the hooves are being handled.
2. Clean the front hooves:
    a. Stand beside the horse's shoulder facing the hindquarters.
    b. Rest the hand closest to the horse on the shoulder while running the other hand down the front of the front leg toward the fetlock.
    c. Push the horse's shoulder to offset its weight, and/or squeeze the tendons above the fetlock to encourage the horse to pick up its foot.
    d. Once the hoof is off the ground, grab the toe using the hand closest to the shoulder.
    e. Place the hoof between your knees or hold it with one hand.
    f. Use a hoof pick to remove the mud and manure. Clean the grooves on both sides of the frog of the foot by starting at the heel and scraping toward the toe.
3. Clean the hind hooves:
    a. Pick up the hind legs as you would the front legs, except place one hand on the hip and run the other hand down the back of the back leg.
    b. The hoof can rest in your lap between your knees.
    c. Be careful not to pull the horse's legs too far to the side. This can be very uncomfortable to the horse and can lessen the chances of it remaining quiet and still.
    d. Use a hoof pick to remove the mud and manure. Clean the grooves on both sides of the frog of the foot by starting at the heel and scraping toward the toe.

In addition to cleaning the hooves, a horse owner should schedule a farrier to trim or put shoes on the horse every 6 to 8 weeks. Routine care by the farrier will help prevent chips, cracks, thrush, and possibly lameness.[4]

Activities: Hoof care.

20. Draw a picture of the bottom of your horse's hoof in the space below.

21. Using a calendar, make a schedule for your horse to be trimmed or shod by the farrier every 6 or 8 weeks throughout the year.

Horse's name: _____

Farrier's name: _____

Farrier's phone number: _____

Date		Procedure (trim or shoes)

Health care

Regular health care includes deworming and vaccinating the horse.

Deworming

Internal parasites, or worms, in horses need to be managed. New horses should be dewormed when they arrive on the property, and all horses should be dewormed regularly.

Many types of dewormers are available in paste, liquid, or pelleted forms, and some types should be rotated to help prevent resistance of parasites to the dewormer. Check with a local veterinarian on the type of dewormer to use and how often to give it.

Other ways to help control parasites include feeding horses from mangers or troughs instead of from the ground; picking up manure regularly from the stalls, paddocks, and pastures; and avoiding the spreading of manure on pastures grazed by horses, if possible.[4]

Vaccinating

Vaccinations can help prevent illness and the spread of disease in horses. Table 3 details a suggested vaccination schedule by the American Association of Equine Practitioners.[1] Contact a local veterinarian for other recommended vaccinations.

Table 3. Suggested vaccination schedule* for horses.

Disease/vaccine	Foals and weanlings	Yearlings	Comments
West Nile virus	Dose 1: 3–4 months Dose 2: 1 month later Dose 3: 6 months (in endemic areas)	Annual, semi-annually, or more often (every 4 months), depending on risk	Annual booster after the primary series
Tetanus toxoid	From nonvaccinated mares: Dose 1: 3–4 months Dose 2: 4–5 months From vaccinated mares: Dose 1: 6 months Dose 2: 7 months Dose 3: 8–9 months	Annual	Booster at time of penetrating injury or surgery if last dose not administered within 6 months
Encephalomyelitis (EEE, WEE, VEE)	EEE: (in high-risk areas) Dose 1: 3–4 months Dose 2: 4–5 months Dose 3: 5–6 months WEE, EEE (in low risk areas) and VEE: Foal from nonvaccinated mare: Dose 1: 3–4 months Dose 2: 4–5 months Dose 3: 5–6 months Foal from vaccinated mare: Dose 1: 6 months Dose 2: 7 months Dose 3: 8–9 months	Annual, spring Annual, spring	In areas where this disease is common, booster EEE and WEE every 6 months; VEE only needed when threat of exposure; VEE may be available only as a combination vaccine with EEE and WEE

*Adapted from American Association of Equine Practitioners. Guidelines for Vaccination of Horses (2002).

Continued on next page

Influenza	**Inactivated injectable:** **Foal from nonvaccinated mare:** Dose 1: 6 months Dose 2: 7 months Dose 3: 8 months Then at 3-month intervals **Foal from vaccinated mare:** Dose 1: 9 months Dose 2: 10 months Dose 3: 11–12 months Then at 3-month intervals **Intranasal modified live virus:** Dose 1: 11 months; has been safely administered to foals less than 11 months – see comments	Every 3–4 months Every 6 months	A series of at least 3 doses is recommended for primary immunization of foals. If Dose 1 is administered to foals less than 11 months old, administer Dose 2 at or after 11 months old
Rhinopneumonitis (EHV-1 and EHV-4)	Dose 1: 4–6 months Dose 2: 5–7 months Dose 3: 6–8 months Subsequent doses: At 3-month intervals	Booster every 3–4 months up to annually	
Strangles	**Injectable**: Dose 1: 4–6 months Dose 2: 5–7 months Dose 3: 6–8 months (depending on the product used) Dose 4: 12 months **Intranasal:** Dose 1: 6–9 months Dose 2: 3 weeks later	Semiannual	Vaccines containing M-protein extract may be less reactive than whole-cell vaccines. Use when endemic conditions exist or risk is high. Foals as young as 6 weeks old may safely receive the intranasal product. Administer Dose 3 at 2–4 weeks before weaning
Rabies	**Foals born to nonvaccinated mares:** Dose 1: 3–4 months Dose 2: 12 months **Foals born to vaccinated mares:** 1st dose: 6 months 2nd dose: 7 months 3rd dose: 12 months	Annual	Vaccination recommended in endemic areas. Do not use modified-live-virus vaccines in horses
Potomac horse fever	Dose 1: 5–6 months Dose 2: 6–7 months	Semiannual	Booster during May to June in endemic areas
Botulism	**Foal from vaccinated mare:** 3-dose series of toxoid at 30-day intervals starting at 2–3 months old **Foal from nonvaccinated mare:** See comments	Consult your veterinarian	Only in endemic areas. If Dose 3 is administered 4 to 6 weeks after Dose 2, the response of foals to primary immunization may be improved. Foal from nonvaccinated mare may benefit from 1) toxoid at 2, 4, and 8 weeks old; 2) transfusion of plasma from vaccinated horse; or 3) antitoxin. Efficacy needs further study
Equine viral arteritis	**Intact colts intended to be breeding stallions:** One dose at 6–12 months old	Annual for colts intended to be breeding stallions	Annual for breeding stallions and teasers, 28 days before start of breeding season; virus may be shed in semen for up to 21 days. Vaccinated mares do not develop clinical signs even though they become transiently infected and may shed virus for a short period

*Adapted from American Association of Equine Practitioners. Guidelines for Vaccination of Horses (2002).

Activities: Deworming and vaccinating.

22. Using a calendar, set a deworming schedule for your horse, and record the date and type of dewormer given.

Horse's name: _____

Veterinarian name: _____

Veterinarian phone number: _____

Date		Dewormer

23. Record the date and vaccinations given to your horse.

Horse's name: _____

Veterinarian name: _____

Veterinarian phone number: _____

Date		Vaccinations

Exercise

Because weanlings and yearlings should not be ridden, they must be exercised in other ways. Horses that are stalled and being conditioned for shows or sales must be turned out for free exercise in a pen or pasture daily, if possible.

Forced exercise for at least 30 minutes per day helps maintain muscle tone and helps prevent boredom, which may lead to unwanted habits such as weaving, cribbing, wood chewing, and stall walking.

In addition to daily turnout, horses can be exercised by longeing (see photograph below), ponying from another horse, hand-walking, or using a mechanical walker or treadmill.[4] If a yearling is to be shown in halter classes, its appearance may be improved by applying a neck sweat while exercising. This helps give the neck and throatlatch a thinner, more refined look. Rinse the horse and the neck sweat thoroughly after each day's exercise.

Also, protect the legs of young horses with splint boots or leg wraps. This will help prevent injuries and unsightly blemishes, such as splints on the front legs.

Because a horse's bones take time to develop strength, introduce hard work gradually, allowing enough recovery time between days of intense work.[7] To help stimulate the skeletal system, provide short amounts of work on firm footing followed by free exercise on soft footing.[3]

If developmental abnormalities appear, seek professional help immediately. Waiting until the horse is sore or lame may cause irreversible damage to the joints and legs.

Activity: Exercise.

24. Record the horse's weekly exercise schedule.

Horse name:		
Day		**Exercise description**
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

Events

The two events for yearling futurity projects are halter and longe (pronounced *lunge*) line. A longe line is a long strap of leather or webbing that has a snap at one end. In a longe line competition, the handler stands in the middle of the arena as the horse circles around him or her about 20 feet away. Ideally, the horse responds to voice commands.

Yearling horses and handlers can compete in halter only, halter and longe line, or longe line only. Halter is divided into two classes: yearling halter geldings and yearling halter fillies.

In halter, a horse's conformation, not the handler, is judged. Judging is based on a horse's balance, structural correctness, quality, muscling, breed and sex character, and tracking, or movement.

Longe line futurity horses must walk, trot, and lope in both directions on the longe line in 2 minutes or less. The horses are judged on correctness of longeing procedures, quality of movement, and conformation.[14] For class requirements, class routine, and scoring methods, see the *Texas 4-H Horse Show Rules and Regulations,* which is available at http//animalscience.tamu.edu/academics/equine/index.htm.

Working with a yearling on standing for halter and longeing promotes safety and good horsemanship from the ground that will benefit the handler and the horse both now and later on, when the horse is ready to be ridden.

Training a young horse for halter includes teaching it to accept the halter and pressures applied by the lead rope, to walk and trot when cued by the handler, to set up (stand quietly for inspection with its feet positioned correctly) in a timely fashion, and to stand still in one place for an extended period of time.

Walking

Follow these steps to train a yearling to walk beside the handler:

1. Stand on the horse's left side with your right shoulder even with the horse's throatlatch.

2. Using your right hand, hold the lead rope 3 to 4 inches from the snap, with the remaining rope held loosely coiled your left hand.
3. Present the new cue first: Move your right hand slightly forward and walk forward. If the horse does not respond by moving in the same direction, you can reach back with your left hand and swat the horse on the hip with the end of the rope while continuing to look and face forward.
4. If the horse tries to avoid the rope and moves to the side, you can use the fence as a tool. Position the horse so that the fence is on its right side and you are on the left, and repeat the above procedures.
5. Do not to look back and stare at the horse; this intimidates some horses and may prevent them from moving forward.
6. Once the horse walks one or two steps, reward even the smallest accomplishment by allowing it to stop and relax.
7. Begin again, gradually asking for more steps at the walk.

Trotting

To teach the horse to trot, use the above procedures, presenting the new cue first. Move the right hand slightly forward, cluck or say "trot," and then jog forward.

Although leading from the horse's left side is correct when showing, practice leading from both sides so the horse can become comfortable with a person on either side.

A horse that respects the handler and cooperates willingly gives the judge a good view of the horse. Stock-type horses look best when standing squarely with the front feet and back feet placed directly under the horse's body and even with each other. Standing with the feet too stretched out or too bunched up distorts the appearance of the conformation of the horse.

Setting up

Correctly setting up a horse is not only important for shows, but it also helps when taking photographs of the horse for yourself or for potential buyers, as it provides the most balanced image of the yearling.

To teach a yearling to set up squarely, concentrate on setting one pair of feet at a time:

1. Choose one hind leg to remain stationary, and move the other one back and forth until it is even with the stationary foot. This can be done by pulling forward or backward on the lead rope with a very slight downward pressure.
2. If the horse's back legs are too close together or too far apart, tip the horse's nose away from the direction that the leg needs to go, and then pull forward or backward to set the foot.
3. Once the horse's back legs are even, say "whoa."
4. Let the horse stand quietly for a few moments.
5. Walk the horse forward to another place, and practice again.
6. After a few or more days, when the yearling consistently sets its back feet correctly, progress to setting the front feet using the same procedures as above, except use a very slight upward pressure when pulling forward or backward.
7. If the horse's legs are too close together or too far apart, tip its nose in the same direction that the leg needs to go, and then pull forward or backward.

Teaching a horse to stand quietly for inspection is not difficult, but it does take a few minutes of practice every day. It is also helpful to haul the horse to other arenas, to accustom it to strange sights and sounds.

Longeing

Longeing not only provides exercise to a horse, but it also offers a chance to prepare the horse to learn and respond to cues that will be used later in riding, such as to walk, trot, lope and stop. Longeing can also be used to evaluate lameness and determine the horse's quality of movement.

To teach a yearling to longe:

1. Position the horse on the circle so that you and the horse are parallel to each other. Your body position in relation to the horse is very important. To drive the horse forward, stay behind the midline of the horse, from the withers back. To slow down or stop the horse, stay in front of the midline of the horse, from the withers forward.
2. If the horse is to be longed in a left circle, hold the longe line in the left hand, and loosely coil the remainder of the longe line in the right hand.
3. Point with the left hand, stay behind the midline of the horse, flap the coiled rope with the right hand, and cluck or give a verbal cue for the yearling to move forward.
4. Reward even small accomplishments, and gradually build on the length of time the horse circles at the walk.
5. To have the horse trot and lope, increase the intensity of the cues above, adding a cluck or smooch sound or the voice commands "trot" or "canter."

6. You may need a longe whip to reinforce the cues. When a horse is confused or wants to avoid longeing, it will often test the handler by turning and facing the handler and refusing to go a certain direction. Remain patient and persistent, gathering the longe line, putting the horse back on the circle and remaining behind the midline of the horse to drive it forward.

7. Make an upward transition—changing from the walk to the trot or lope—by remaining behind the horse's midline and increasing the intensity of the cues. At the same time, give a verbal cue for the desired gait.

8. Make a downward transition—changing from the lope to the trot or walk—by stepping to the side, or laterally, in the direction of the horse's head, which would be in front of the horse's midline. Give a verbal cue for the desired gait.
9. Stop the horse by stepping laterally in front of the horse's midline and saying "whoa." Hopefully, you will have taught the horse what "whoa" means when leading the horse. If the horse fails to stop, repeat the command or use the fence as a tool. If longeing next to a fence or in the corner, wait until the horse circles to a position where facing the fence, and then add the cue of stepping laterally and saying "whoa," and allow the fence to help block forward motion.
10. Once the horse is stopped, do not pull it to the middle of the circle. Instead, walk up to the horse, coiling the loose longe line along the way.[4] This helps prevent the dangerous possibility of the horse running to the middle and possibly injuring you when it is spooked or scared.

Be careful to keep from being kicked by the yearling: Remain a safe distance from the horse when asking it to go forward.

Activities: Events.

25. Attend a horse show and enter your weanling or yearling in halter or longe line. Record your placing and describe what you did well and what you need to work on to improve at the next show.

Horse name: _____

Horse show: _____ **Date:** _____

Class	Place	What I did well and what needs work
Halter		
Longe line		

26. Attend another horse show, and compare your progress from the first show to the second show.

Horse name: _____

Horse show: _____ **Date:** _____

Class	Place	What I did well and what needs work
Halter		
Longe line		

Summary

A yearling futurity project can be an enjoyable and educational experience for a young person and can help develop character traits such as responsibility and good work ethic. To raise a healthy yearling, give it proper care and maintenance, including balanced nutrition, regular grooming, routine hoof care, deworming and vaccination, adequate exercise, and consistent training.

With proper care and training, the yearling may be used later as a 2-year-old and 3-year-old project. A successful horse project could result in a horse that can be enjoyed for years to come.

Answers

1. B: Alfalfa; A: Coastal Bermudagrass
2. A
3. A
4. A
5. Feed A
6. 6.00% - 3.00% = 3.00%; 3.50% - 3.00% = 0.50%
7. Feed A
8. $\frac{(55 \text{ in} \times 55 \text{ in} \times 70 \text{ in})}{301} = 703.5$ pounds

10. 500 pounds x 1.0 % = **5 pounds of forage**; 500 lbs x 1.5% = **7.5 pounds of concentrate**
11. 5 pounds / 2 = **2.5 pounds of forage per feeding**; 7.5 lbs / 2 = **3.75 pounds of concentrate per feeding**
15. C = 3; A = 5; B = 7
17. B = mane and tail comb; E = hoof pick; A = curry comb; C = soft brush; D = stiff brush
19. B

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