

# Horse Management 101

Carrie Swanson

Extension Agent, Albemarle County



# Horse Management...

(is not a 30 minute subject)

- Animal considerations
- Land considerations
- Feeding & Nutrition
- Fencing & Shelter
- Manure management
- Emergency planning
- Professional support



# Animal Considerations / Horse Evolution

- Grazing animals - large open spaces
  - ✓ Forage = majority of diet
  - ✓ Require exercise
- Herd animals
  - ✓ Need companionship





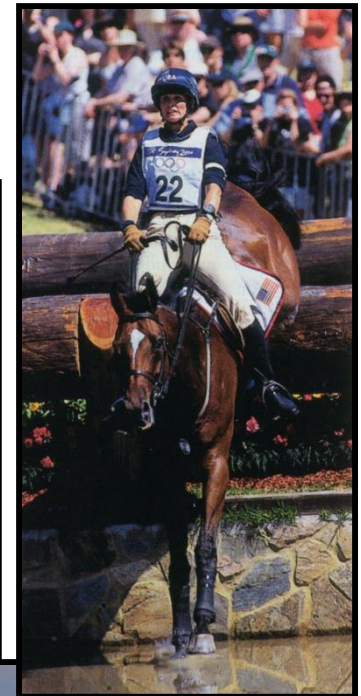
# Equine Nutrition

## In a nutshell:

- Evolved eating forage...
- Time in foregut vs. time in hindgut
- Small stomach, no gal bladder = small meals
- Wild horses don't have ulcers...
- A horse is not a cow – design flaw
- Take home message: Grass and hay are the MOST important part of your horse's diet!!

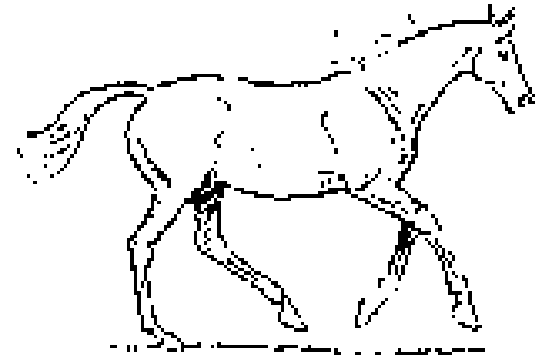


# Horse appetites (and needs) are not created equal...



# How do I know what my horse needs?

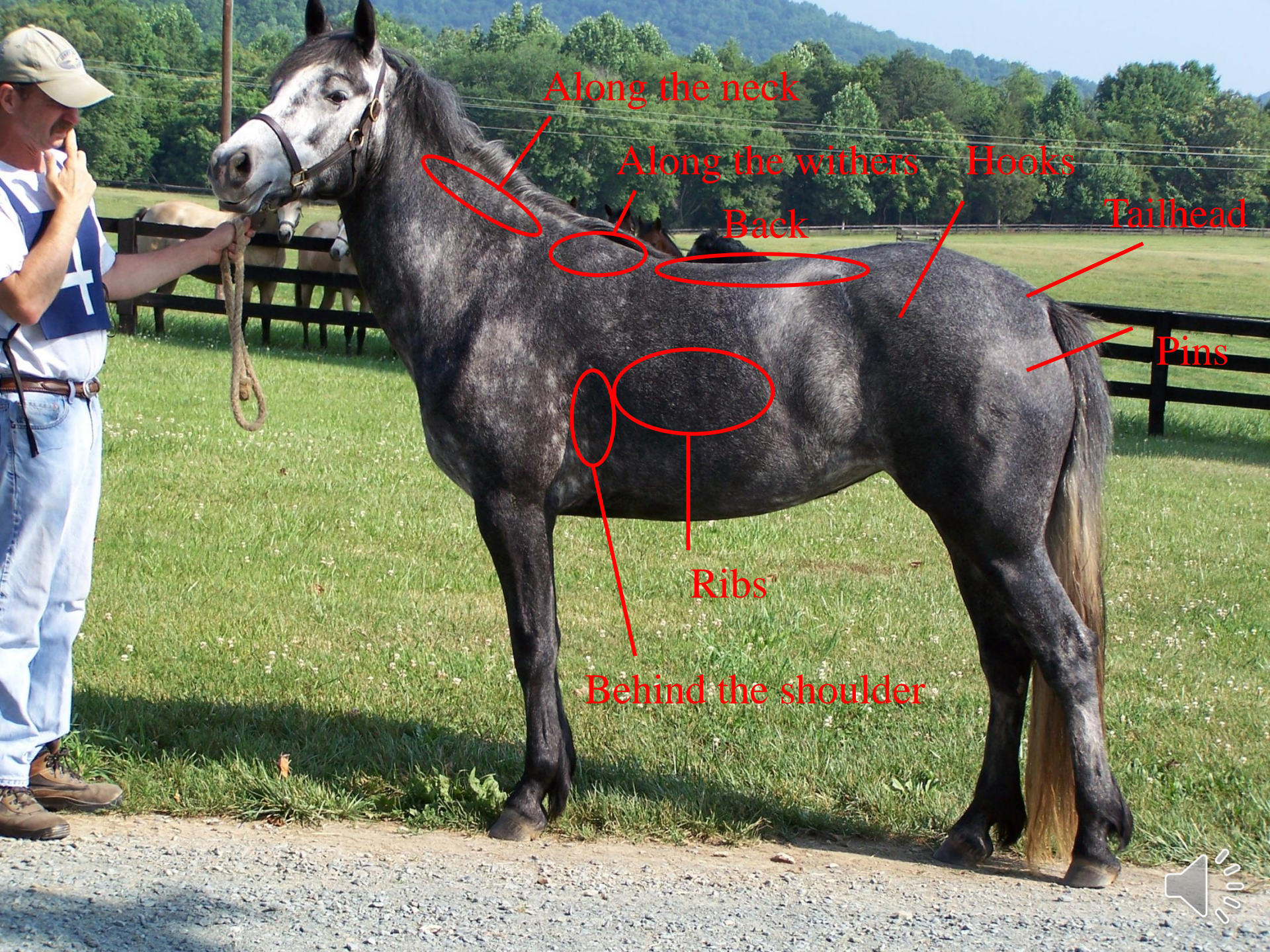
- Take into account:
  - Age / Production stage
  - Breed
  - Activity Level
  - Environmental Factors
  - Individual variation



# Body Condition Scoring

- Henneke method
- Horses are scored from 1-9
- The “ideal” score will vary due to breed, conformation, age, and use
- More accurate when horses are palpated
- Horses should be re-evaluated over time





Along the neck

Along the withers

Hooks

Tailhead

Back

Pins

Ribs

Behind the shoulder





# Land Considerations

- HOA and Zoning restrictions
- Minimum of 2 acres/horse for sustainable pasture (more depending on slope, soil conditions, etc.)
  - Vegetative cover
  - Nutrition (all or large % of)
  - Exercise
  - Property value
- Converting woods to pasture
  - Expensive
  - Takes years to establish grass



# Stocking Rates

- 2-3 acres/1000 lbs (minimum) to be sustainable and supply all/most of their nutrition.
- 12 hrs in a stall doesn't = ½ horse



# Root development is strongly related to frequency and extent of leaf removal



**Cut to 2"  
every week**

**Cut to 2"  
every 2 week**

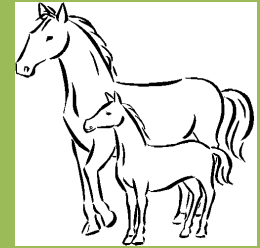
**Cut to 2"  
every 4 weeks**



# Rotational Grazing

- Key ingredient = rest! (i.e. recovery time)
- Much like caring for your lawn
- Leaves make energy (photosynthesis)
- Energy stores used for regrowth





Dry Lot



**Graze from 8" down to 3", move horses, mow weeds/harrow manure, REST  
Use dry lot when wet, dormant or to allow 3+ weeks before grazing again.**



# Sacrifice Lots / Dry Lots

- Area where you do not attempt to maintain vegetative cover
- Critical management tool
  - Easy keepers
  - Wet weather
  - Grass is dormant
  - Stocking rates too high



# Soil Nutrition...give your grass a fighting chance!

- Soil Test – pH, Nitrogen, Phosphorus, Potash
- Talk to your Extension Agent!
- Adjust your pH first...6+ (lime will raise)
- Fertilize in Fall (best bang for your buck)
- Helps grass compete against the weeds!



# What's the best type of fence?

*Well, it depends...*

- On the type of operation
- On your location
- On the type / age of your horses
- Size of the pasture or paddock
- Other animals/uses





# Strength & Visibility





If you can't see it,  
neither can your horse!





# What about Electric??



# Shelter

- Needs will depend on: age, breed, coat, etc.
- Minimum = windbreak for cold, wet weather  
(will likely use shed more in summer – shade)



# Hay Storage

- Ideal = 1 year's worth of hay
- Minimum ~ 1 month's worth
- Dry, good air circulation
- If stored on ground/concrete, pallets or straw bales
- Accessible (think about delivery vehicles & bad weather)



# Manure Management

The average horse produces 50 lbs of manure a day, with bedding, that's 60-70 lbs/day (or 12 tons a year!)

You'll need a plan for that manure, even if your horses are on pasture full-time.

Often storage facilities and/or equipment will be necessary.



# Accessibility

- For trailers
- For emergency vehicles
- For the vet / farrier
- For feed and hay delivery
- Fertilizer, lime, bushhogging





# Emergency Planning

- Emergency vehicle access
- Water during power outage
- Hay & feed during snow storms
- Fence repairs
- Need to be self-sufficient for at least 3 days
- Evacuation sites, transportation, permanent ID

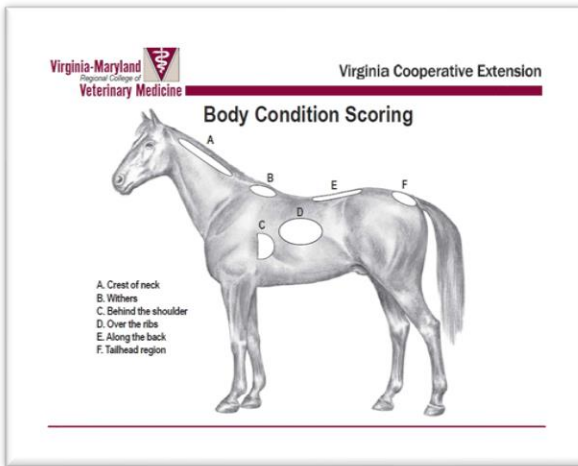


# Professional Support

- Farrier (every 6-8 weeks)
- Veterinarian (routine 1-2x per year, emergencies)
- Trainer (pre-purchase, and on-going)
- Extension Agent (pasture, weeds, grazing management, local contacts)



# Additional resources...



Virginia Cooperative Extension  
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## Horse Manure Management

Crystal Smith, Extension Agent, Warren County  
Carrie Swanson, Extension Agent, Albemarle County

### Introduction

Manure management is a vital part of modern day horse ownership. Many horses spend a significant portion of their day in stalls, accumulating large amounts of manure and stall waste. Horse owners generally have a limited amount of time to spend caring for their equine charges; thus, efficient manure removal and disposal is crucial. Additionally, horse facilities are often managed on relatively small acreage, limiting manure storage and application options.

The intent of this publication is to educate horse owners on the effective management of horse manure. Horse owners will first gain a thorough understanding of the quantity and characteristics of manure produced by horses. Finally, on-site options for handling, storing and treating manure will be discussed, keeping sound facility management and environmental stewardship in mind.

Managing horse manure can be a complex topic, and the principles presented here should be tailored to your specific situation. Please contact your local Extension agent or Natural Resources Conservation Service Field Office for technical support.

### Horse Manure Production and Characteristics

Horses produce large amounts of manure. In fact, if the manure produced from one horse were allowed to pile up in a 12-foot-by-12-foot box stall for one year, it would accumulate to a height of six feet! On any given day, the average 1,000-pound horse will produce approximately 50 pounds of manure. This amounts to about eight and a half tons per year!

### Environmental and Health Impacts

Many horse owners do not have enough land or vegetative cover to properly apply large amounts of manure and nutrients. If not managed properly, manure can deposit excess nutrients into the environment via surface runoff or as leachate (water contaminated with manure) from improper manure storage and land application. This can negatively impact water quality and subject landowners to investigation, and in some cases, legal action under the Virginia Agricultural Stewardship Act. For these reasons, horse operations are encouraged to use best management practices and develop a nutrient man-

Manure is not the only material being removed when stalls are cleaned. Wet and soiled bedding material must also be removed, and can equal almost twice the volume of the manure itself. The amount of bedding material removed will vary by type (shavings, sawdust, straw), but on average totals between eight and 15 pounds. Total stall waste produced averages between 60 and 70 pounds per day, which amounts to approximately 12 tons of stall waste per year!

When managed properly, horse manure can be a valuable resource. Manure is a source of nutrients for pasture production and can be utilized as part of a pasture management strategy to improve soil quality. The fertilizer value of the eight and a half tons of manure produced annually from a 1000-pound horse can amount to 102 pounds of nitrogen (N), 43 pounds of phosphorous (P<sub>2</sub>O<sub>5</sub>) and 77 pounds of potash (K<sub>2</sub>O). Nutrient values for manure vary widely. The type and quantity of bedding material included also affects the overall fertilizer value. If a more accurate measure of nutrient content is needed, contact your local Cooperative Extension office for a list of laboratories that perform manure analysis.

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Virginia Tech  
Natural Resources Conservation Service

## A Practical Guide to Horse Pasture Management in Virginia

Jason Carter  
Animal Science Extension Agent  
[jbcarter@vt.edu](mailto:jbcarter@vt.edu)

Brian Jones  
Crop and Soil Science Extension Agent  
[bjones@vt.edu](mailto:bjones@vt.edu)

Crystal Smith  
Animal Science Extension Agent  
[csmith06@vt.edu](mailto:csmith06@vt.edu)

Carrie Swanson  
Animal Science Extension Agent  
[cswanson@vt.edu](mailto:cswanson@vt.edu)

Virginia Cooperative Extension  
virginia state university  
Virginia Tech  
www.ext.vt.edu

Questions...

[horse@vt.edu](mailto:horse@vt.edu)

