Pasture Management for Horses

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DIGESTIVE SYSTEM

Esophagus
4-5 feet

Stomach
8-19 quarts
(8%)

Small Intestine
70 feet
68 quarts
(30%)

Cecum
4 feet
28-36 quarts
(15%)

Large Colon
10-12 feet
86 quarts
(38%)

Small Colon
10-12 feet
16 quarts
(9%)

Rectum
1 foot

Foregut

Hindgut

Courtesy of D. D. Householder and G. D. Potter, Texas A & M University
Sheep (Ovis aries)
Body length: 110 cm

Pony (Equus caballus)
Body length: 164 cm
Sheep (*Ovis aries*)
Body length: 110 cm

Pony (*Equus caballus*)
Body length: 164 cm

Reticular-Omasal Orifice
Horse Grazing Strategy

- Put a lot of food through the pipe.
- Quickly digest soluble nutrients
- High volume is more important than high quality.
- Spend a lot of time eating forage.

- Helps understand horse characteristics.
Forage is the Base

- Forage should be the large majority of a horse’s diet.
- Low to moderate quality forage is adequate.
  - Low sugar and protein content
- Supplement with higher quality feeds as needed.
Common Feeding Practices

• Alfalfa
• Grain
• Little to no pasture forage
• Stall feeding
• No eating exercise
Pasture Management Goals

• Pastures should:
  – Provide a majority of dietary intake….ideally.
  – Provide a diversity of plant forage species.
  – Minimize invasion by poisonous & invasive plants.
  – Minimize runoff of nutrients, sediments and pathogens.
Problems with Poor Pastures

• Overgrazed
• Weeds (some toxic)
• Parasites
• Runoff/Water quality
• Improper nutrition
Establishing and Managing Healthy Pastures

• Start with your available resources and constraints
  – Land area
  – Water
  – Management: irrigated or dryland
  – Carrying capacity
  – Sensitive areas
Establishing and Managing Healthy Pastures

• Start with your available resources and constraints

• Pasture infrastructure
  – Fences
  – Water troughs
  – Irrigation
K-Line Irrigation

http://www.k-linena.com/
Establishing and Managing Healthy Pastures

- Start with your available resources and constraints
- Pasture infrastructure
- Plant establishment
  - Plan to plant in the fall
  - Land preparation
  - Seed selection
  - Early growth management
Establishing and Managing Healthy Pastures

- Continued management
  - Do not overgraze
  - Proper utilization
  - Proper rest periods
  - Animal rotations
  - Weed control
  - Fertilization when needed
  - Mow when needed
  - Maintain proper residue before rainy season
  - One acre irrigated pasture = 0.7 horses/year
Water Quality Regulations

• Water quality determined impaired in Napa River by Bay Area Regional Water Quality Control Board
• Grazing activities identified as sources of pathogens and sediments
• Options
  • File for waste discharge permit
  • File for conditional waiver
  • Cease operations