Feeding the Future Athlete: Mare and Foal Nutrition

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Key Components to Breeding Success

• Good genetics
• Proper nutrition
• Sound management
• Training
• Good veterinary health care

Nutritional Goal

To provide a diet that will support sound growth and development from conception to maturity

Production Cycle of the Mare
Effects of Nutrition on Reproductive Performance

- Inadequate energy results in:
  - Weight loss
  - Decreased reproductive function
  - ↑ risk of early embryonic loss
- Inadequate protein results in:
  - Failure to ovulate
  - ↑ risk of early embryonic loss

For maximum reproductive efficiency, mares should be at a body condition score of 6 or 7 and fed to maintain this condition.

Fetal Nutritional Programming

- Mare nutrition can impact the foal’s genetic potential

Foal Growth in utero

Early Gestation – 0 – 8 mo

- Good quality hay or pasture
- Vitamin-mineral supplement OR grain mix if using poor hay or mare needs to gain weight

Late Gestation – 9 – 11 months

- Good quality hay
- Supplement or Grain Mix?
  - Depends on individual mare and quality of forage
  - May want to provide grain:
    - Help to adapt mare to grain
    - With foal growth, less room in GI tract for bulky feeds like hay
Lactation – Feeding

- Good quality hay or pasture
- Grain
  - Select a commercial feed formulated for lactating mares
  - Even better, select a feed formulated for growing horses (foal may share)

Preparing mare for weaning

- Reduce or eliminate grain 1 – 2 wks prior to weaning
  - Helps to ↓ milk production
  - Encourages foal to eat solid foods
- Eliminate grain for 2 wks post-weaning
  - Helps to dry up udder
  - Reduces mare’s discomfort
  - Reduces incidence of mastitis

How Do Young Horses Grow?

- Birth - 10% of mature weight
  - 60% of mature height
- 6 mo - 50% of mature weight
  - 80% of mature height

Feeding Growing Horses

Considerations - Suckling/Weanling

- Creep feeding:
  - Specialized growth feed either with dam or in separate foal feeder
    - 1 lb per month of age per day
  - 2 months – mare’s milk no longer sufficient
  - May help ease stress of weaning

Considerations - Yearling/2-year-old

- Yearling – maintain smooth growth curve
- Two-year-old in training – must feed for growth and exercise simultaneously
Supporting Sound Growth and Development

- Nutrition
  - Too many calories and lack of proper amino acids increase risk of developmental orthopedic disease
  - Mineral intake, especially copper, is also important
- Genetics
  - Larger Breeds or Rapid growth?
- Management/Environment
  - Confinement
  - Forced Exercise

The Balancing Act

<table>
<thead>
<tr>
<th>ENERGY (calories)</th>
<th>Protein</th>
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<tbody>
<tr>
<td>Soluble carbs</td>
<td>Vitamins</td>
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<tr>
<td>Fiber</td>
<td>Minerals</td>
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<tr>
<td>Fat</td>
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So what should I feed?

Concentrate Feeds

- When quality forage is available and additional calories are required
  - Texturized
  - Pelleted

Complete Feeds

- When quality forage is limited or not available
  - St. Peter's Equine Junior

Supplemental Feeds

- When quality forage is abundant and additional calories are not required
- When foals are experiencing DOD

THANK YOU!