

# NUTRITION FOR THE PERFORMANCE HORSE COURSE OUTLINE

by

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## **Week One – Structuring the Diet**

- I. The importance of forage
- II. Whole feeds and a clean diet
- III. Effects of processing
- IV. Balancing energy sources, endurance versus speed
- V. Balancing other nutrients
- VI. Timing of feeding in relation to exercise

## **Week Two – Key Metabolic Pathways**

- I. Aerobic metabolism
- II. Anaerobic metabolism
- III. Influence of diet composition on burning of fuels
- IV. The critical importance of water
- V. Avoiding protein catabolism

## **Week Three – Oxidative Stress**

- I. Free radicals
- II. Role of free radicals in adaptation to exercise
- III. Free radical damage
- IV. Antioxidant enzyme systems
- V. Role for supplements

## **Week Four – Buiding Blood**

- I. Exercise as a hematinic (blood builder)
- II. Dangers of iron supplementation
- III. Exercise damage to red cells
- IV. The real causes of poor red counts
- V. Red cells do more than carry oxygen

### **Week Five – The Immune System**

- I. Beneficial effects of exercise
- II. Detrimental effects of exercise
- III. The lung is particularly vulnerable
- IV. Role of supplements

### **Week Six – Protecting the Soft Tissues**

- I. The importance of dietary protein
- II. Avoiding muscle pain
- III. Unraveling tying-up
- IV. Tendon and ligament problems

### **Week Seven – Electrolytes and Hydration**

- I. Review of sweat electrolyte losses
- II. The diet as an electrolyte supplement
- III. Acidosis and alkalosis
- IV. Manipulating acid-base balance with diet

### **Week Eight – Overtraining/Undertraining**

- I. Definitions
- II. Symptoms
- III. Laboratory findings
- IV. Role of adaptogens

### **Week Nine – Special Support**

- I. EIPH (lung bleeding)
- II. Anabolics
- III. True ergogenics
- IV. Glycogen loading/support strategies
- V. Joints

### **Week Ten – Problems of the Young and Older Horse**

- I. The difference between 2-year-olds and 3-year-olds
- II. Pros and cons of early training
- III. Nutritional support for the growing horse
- IV. Problems of the older athlete
- V. Nutritional support for the older athlete