

# Alfalfa Hay and the Horse Market

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California totals hundred million acres and is home to over thirty million residents. Many Californians find recreational outlets in horses. The horse industry in California spends billions of dollars every year and represents one million head. Horse owners represent a huge spectrum of interests that range from the working cow horse to weekend pleasure horses. Track horses, breeding stock, and draft animals are all part of the horse industry, and all have different nutrient requirements. To successfully market hay to horse owners, it is important to have some insights into basic horse nutrition.

The basic premise for feeding any mammal is fairly simple. Their feed requirements are based upon their size and production. The following list outlines the basic nutrient sinks:

- Maintenance (based upon animal weight)
- 2. Activity
- 3. Lactation
- 4. Growth
- 5. Gestation
- 6. Reproduction

Nutrients are frequently discussed in terms of protein and energy. Two common measures of these are crude protein and Total Digestible Nutrients (TDN).

The quantity and quality of feed required by a given animal are based upon its size and production. For the purpose of example, consider the following four situations:

- Maintenance Horse, 1100 lbs
- 2. Light Work Horse, 1100 lbs
- 3. Yearling, Moderate Growth, 1.1 ADG
- 4. Wet Mare, 3 Months to Weaning, 1110 lbs

The nutrient requirements of these animals are outlined in Figure A, which demonstrates the impact of production and activity on feed requirements within the four examples. Understanding the nutrient requirements of each animal facilitates the decision of what to feed the horse. Balancing a ration for the maintenance horse using two different feeds demonstrates this. Alfalfa and oat hay are forages that are frequently fed to horses. Figure B demonstrates the dry matter, protein, and energy of the feeds being considered.

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Figure A

### Relationship Between Class of Horse and Relative Nutrient Requirements

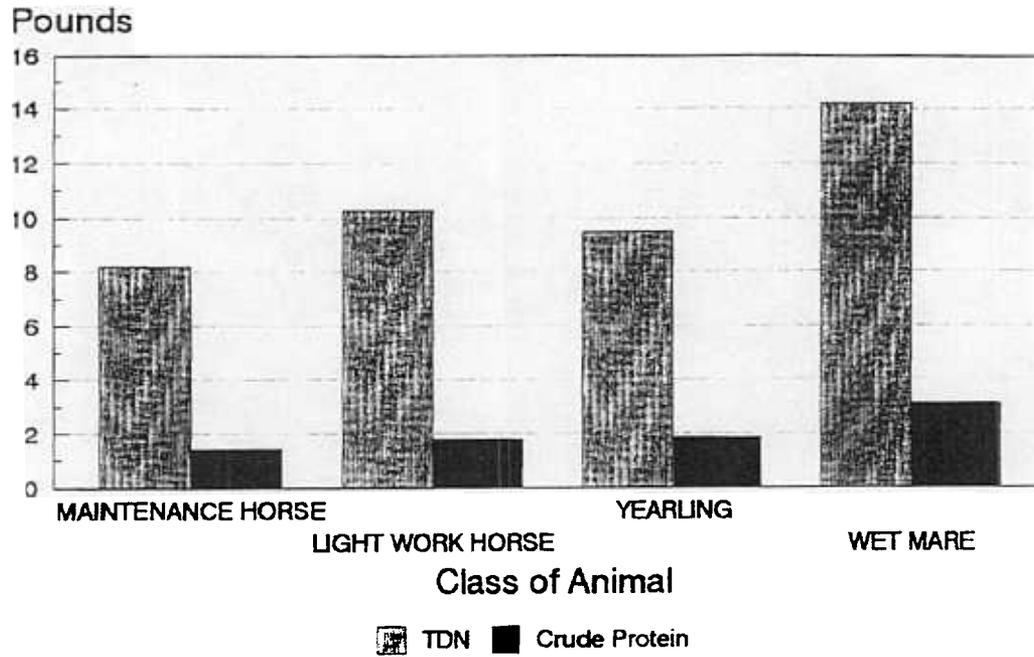
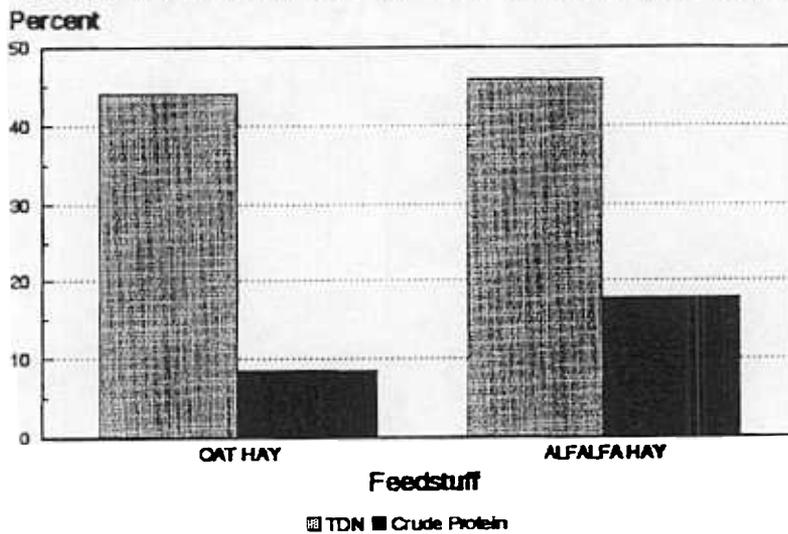


Figure B

### Nutrients Available in Oat and Alfalfa Hays



Tables 1 and 2 demonstrate the needs of the maintenance horse and the moderate work horse. Table 1 is an example of the maintenance horse being fed oat hay, while Table 2 demonstrates that alfalfa hay exceeds the needs of the moderate work horse for both protein and TDN. It is evident that the oat hay alone will not meet the requirements of the classes of horses.

Table 1

<p>Maintenance Horse (Oat Hay)          Required:          TDN = 8.2 lbs          CP = 1.4 lbs</p> <p>24 lbs * 91% = 21.8 lbs (Dry Matter)</p> <p>21.8 * 44% TDN = 9.6 lbs TDN          21.8 * 8.6% CP = 1.9 lbs CP</p>
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Table 2

<p>Moderate Work Horse (Alfalfa Hay)          Required:          TDN = 10.3 lbs          CP = 1.79 lbs</p> <p>26 lbs * 91% = 23.7 lbs (Dry Matter)</p> <p>23.7 lbs * 46% TDN = 11.0 lbs TDN          23.7 lbs * 17.9% CP = 4.2 lbs CP</p>
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When selling hay to the horse market, it is important to keep in mind the buyers' needs. The majority of horses in California are kept by individuals on small acreages. In some regions, the opportunity to develop niche markets may be possible. Fostering these markets may be difficult, however. They demand a quality product in a special package. For many horse owners, three wire bales are too heavy, and a truck load of hay is more than they need. Smaller bales and specialized service are where smaller producers may fit into the horse hay business.