

Balancing Horse Diets

1. Horses should be fed a minimum of 1% of their body weight per day as forage or roughage to maintain proper digestive function, prevent “bolting” or overeating, and prevent digestive upsets such as colic and laminitis.
2. Horses at maintenance may get all of their required Lysine, CP, and energy solely from forage.
3. Lactating mares, growing foals and horses, and horses with high exercise demands will probably need to be fed some additional cereal grain and may need additional quantity and quality (essential amino acids) of protein.
4. Horses at maintenance will eat approximately 2% of their body weight per day.
5. Be sure to use energy values specifically given for horses. Energy values given on forage analysis reports are usually calculated for ruminants. Horses digest forages less effectively than ruminants, so energy values for forages need to be converted from a “ruminant” basis to a “horse” basis. Usually “horse” forage energy values are about 88% of the “ruminant” forage energy values.

Example analysis from a lab report:

Grass hay TDN, % (ruminant) x 0.88 = TDN, % (horse)

50% TDN (ruminant) x 0.88 = 44% TDN (horse)

Mature horse requirements

	DE, Mcal	CP, g	Lysine, g	Ca, g	P, g
Maintenance – 500 kg	16.4	656	23.0	20.0	14.0
Maintenance – 600 kg	19.4	776	27.2	24.0	16.8
Light work – 500 kg	20.5	820	28.7	25.0	17.8
Light work – 600 kg	24.2	970	33.9	29.6	21.1
Moderate work – 500 kg	24.6	984	34.4	30.0	21.4
Moderate work – 600 kg	29.1	1,164	40.7	35.5	25.3
Intense work – 500 kg	32.8	1,312	45.9	40.0	28.5
Intense work – 600 kg	38.8	1,552	54.3	47.3	33.8

Example 1: A mature 500 kg gelding fed grass hay (1.95 Mcal/kg DE, 8.46% CP).

500 kg x 0.02 = 10 kg intake

10 kg x 1.95 Mcal/kg = 19.5 Mcal DE

10 kg x 0.0846 x 1000 g/kg = 846 g CP

This amount (10 kg) of grass hay would meet all the requirements of a mature 500 kg horse at maintenance.

Example 2: A mature 500 kg gelding at moderate work.

Feedstuffs – grass hay (as above), grain (2.45 Mcal/kg, 8.9% CP), alfalfa hay (1.75 Mcal/kg, 18% CP)

