

403-931-2232 Box 4, Site 25, RR 8 Calgary, AB T2J 2T9

Bob Seaman 403-371-6691 ♦ Mike Phillips 403-899-1093 ♦ Shop 403-933-2674 ♦ Delivery 403-371-2841

What's in your HAY??

RFQ – Relative Forage Quality – an index for ranking forages based on a more comprehensive analysis than RFV (Relative Feed Value). RFQ is calculated from CP(crude protein), ADF(acid detergent fiber), NDF(neutral detergent fiber), fat, ash and NDF digestibility measured at 48 hours. It should be more reflective of the feeding value of the forage. RFQ is based on the same scoring system as RFV with an average score of 100. The higher the RFQ, the better the quality.

Valley Hay's Forage RFQ ranged from 113 to 165 with the average score being 137!

All horses need the major nutrients:

Energy, protein, minerals, vitamins, water

Depending on the level of activity, many horses will be unable to consume enough feed to meet their energy needs from forage alone. *Grains contain 25-75% more energy per pound than hay.*

When designing your feeding program, remember that good quality forages should form the basis of the ration for ALL horses. Good quality forages in the form of hay or pasture provides energy, protein, vitamins and minerals. With good quality forages, less supplementation is needed to complete the diet.

Be careful not to over-supplement vitamins and minerals. Excess vitamins and minerals are not only a waste of money, but they may also create problems by upsetting the balance of other nutrients in the diet or by causing toxicity.

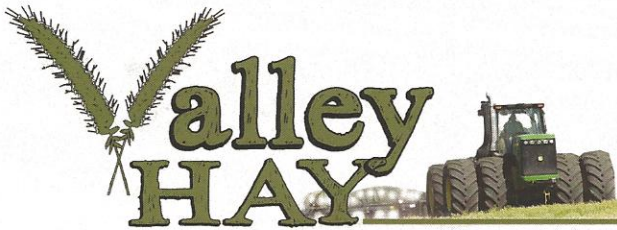
General Feeding Guidelines

In summary, here are a few things to remember when designing a feeding program for performance horses:

1. Good quality forage is the basis for all feeding programs:

- All horses, no matter what their use, require a minimum of 1 per cent of their body weight in forage per day to maintain healthy gut function.
- Forage can be provided in the form of hay, pasture or some other high-fibre feed source.





403-931-2232 Box 4, Site 25, RR 8 Calgary, AB T2J 2T9

Bob Seaman 403-371-6691 ♦ Mike Phillips 403-899-1093 ♦ Shop 403-933-2674 ♦ Delivery 403-371-2841

- Selection of all other feeds and grain supplements should be made based on the forage included in your horse's diet.
- While forage may provide all the nutrition needed by horses in light work, horses in moderate or intense work will likely need supplementation with more energy-dense feeds like grains and oils.

2. To reduce the risk of colic and founder:

- Changes to the diet should be made gradually over one to two weeks.
- Never feed more than 5 pounds (2.2 kg) of grain at a single feeding.
- Feed smaller meals more frequently.

3. The amount fed should be varied as needed:

- Your horse's body weight and condition are the best indicators of the amount of feed needed.
- Most performance horses should have a body condition score of 5 to 7 (1 to 9 scale: 1 = thin, 5 = moderate, 9 = obese). Thin horses may not have enough energy stores to sustain the activity required of them. Similarly, extra fat carried around by overweight horses puts added stress on joints, tendons and ligaments.
- For more information on body condition scoring, see the Alberta Agriculture factsheet [*Body Condition Scoring Your Horse*](#) (Agdex 460/20-1).

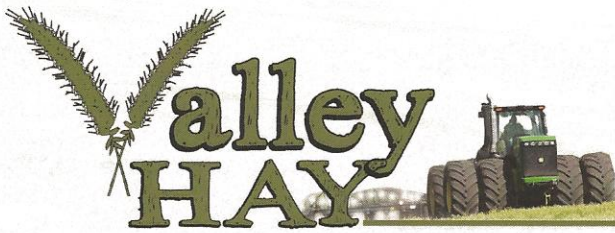
4. Provide "free-choice" access to salt

5. Provide an easily accessible, clean source of water at all times.

Originally prepared by:

Dr. Lori K. Warren





403-931-2232 Box 4, Site 25, RR 8 Calgary, AB T2J 2T9

Bob Seaman 403-371-6691 ♦ Mike Phillips 403-899-1093 ♦ Shop 403-933-2674 ♦ Delivery 403-371-2841

Glossary

Crude Protein - the total amount of protein present as calculated from the total nitrogen present. Unless otherwise stated, protein values given in lab reports, feed tables and feed tags are crude protein. Laboratory analysis measures the total amount of nitrogen present in a feed. Protein can also be used as an energy source, but it is very inefficient and doesn't contribute greatly as a fuel for muscle contraction. Therefore, while dietary protein needs increase with an increased level of activity, the additional feed intake required to supply the necessary energy will usually supply the additional protein needed.

Acid Detergent Fibre (ADF) - the fibrous, least-digestible portion of roughage. ADF consists of the highly indigestible parts of the forage, including lignin, cellulose, silica and insoluble forms of nitrogen. Roughages high in ADF are lower in digestible energy than roughages that contain low levels of ADF. As ADF levels increase, digestible energy levels decrease.

Neutral Detergent Fibre (NDF) - is commonly called "cell walls." NDF gives a close estimate of fibre constituents of feedstuffs as it measures cellulose, hemi-cellulose, lignin, silica, tannins and cutins. Neutral detergent fibre has been shown to be negatively correlated with dry matter intake. As the NDF in forages increases, animals will be able to consume less forage.

Fat - Fat is typically determined by ether extraction. In addition to fat, ether extraction may solubilize plant pigments, esters and aldehydes. This is why the measurement is called crude fat. Fat is an energy dense nutrient and contains 2.25X the energy found in carbohydrates. It is added to rations to boost energy levels when intake may be limiting.

Energy - Energy is the nutrient required in the greatest amount. Energy is used in all biological processes and is essential for life. For livestock Energy requirements are determined for maintenance, growth or gain, lactation, reproduction and activity level. Failure to supply adequate energy will result in poor performance. Energy values are not measured; rather they are predicted using equations and relationships with other nutrients.

Ash - a measure of the total mineral content. Samples are weighed and incinerated at 600 degrees C for two hours. This burns off all of the organic material (protein, fiber, fat, etc.) leaving behind the minerals.

