



Hey – What do you know about Hay?

Hay is the bulk of your horse's diet. Purchasing good quality hay, high in nutritive value is of the utmost importance to horse owners.

1. Horses are more susceptible to mould and certain weeds than ruminants.
T/F
2. Salting hay is a good way to preserve it
T/F
3. Propionic, acetic and formic acids should not be used on hay for horses
T/F
4. Chances are if you baled your hay too wet (over 15% moisture) there is a risk of prolonged heating. Resulting problems include:
 - a) Moisture levels above 20 percent allow the respiration process to continue and mould to develop, palatability decreases.
 - b) Digestibility of protein, fiber and carbohydrates are reduced
 - c) When hay heats beyond 100° F (38° C), browning or caramelization occurs. Brown hay can still be very palatable because of the caramelization of sugars but nutritional value is reduced.
 - d) At a certain point of overheating spontaneous combustion causing fire is a concern
 - e) All of the above
5. Leaf shatter dust can occur during the baling process if extremely leafy hay is also very dry.
T/F
6. There is no difference in mycotoxin levels in round bales and small squares.
T/F
7. Round bales do not need to be stored under cover
T/F
8. Horses don't have a preference between dry, steamed and soaked hay
T/F
9. Hay testing is an important step for correctly balancing your horses diet.
T/F
10. When feeding **grass** hay your first limiting amino acid is likely to be:
 - a) Theronine
 - b) Lysine
 - c) Tryptophan



ANSWERS ON FOLLOWING PAGES:

1. Horses are more susceptible to mould and certain weeds than ruminants.

True. When purchasing hay – it is important the supplier knows it is intended for horses and the horse owner should be able to identify good quality hay. Score Card for Visual Hay quality: https://www.equineguelph.ca/pdf/facts/RFV_CHART.PDF Physically Evaluating Hay video from our friends at University of Minnesota Equine Extension. https://www.youtube.com/watch?v=2GF5jpOb574&feature=youtu.be&fbclid=IwAR1diogh8dBr7AyLO_R3ycYMUD0jgtlyul1vSkJaFqzm6a_yTC0n9J3Mk8BY

2. Salting hay is a good way to preserve it T/F

False. To be effective for preserving wet or green hay the level of application required would make the hay unpalatable.

3. Propionic, acetic and formic acids should not be used on hay for horses

False. Preservatives containing Propionic and acetic acid are produced by cecum and colon of a horses as the microbial population digest fibrous feed. These organic acids are potent mold inhibitors and are particularly useful at drying hay during a wet season. Do not store treated hay beside dry hay or it will absorb moisture from the treated hay and mold. More about mould inhibitors: [equineguelph.ca/pdf/facts/HAY%20AND%20HAYLAGE%20SEPT%2015_04.PDF](https://www.equineguelph.ca/pdf/facts/HAY%20AND%20HAYLAGE%20SEPT%2015_04.PDF)



4. Chances are if you baled your hay too wet (over 15% moisture) there is a risk of prolonged heating. Resulting problems include:

- a) Moisture levels above 20 percent allow the respiration process to continue and mould to develop, palatability decreases.
- b) Digestibility of protein, fiber and carbohydrates are reduced
- c) When hay heats beyond 100° F (38° C), browning or caramelization occurs. Brown hay can still be very palatable because of the caramelization of sugars but nutritional value is reduced.
- d) At a certain point of overheating spontaneous combustion causing fire is a concern

e) All of the above

5. Leaf shatter dust can occur during the baling process if extremely leafy hay is also very dry.

True

6. There is no difference in mycotoxin levels in round bales and small squares.

False. Watch this video with Dr. Beinzle. She explains best practices to promote respiratory health. <https://www.youtube.com/watch?v=RdlxPFTBJ8s&list=PLF0E5C4E341A8C674&index=20>

7. Round bales do not need to be stored under cover

False. In fact, during periods of rain and snow if there are not enough horses feeding at the round bale to consume it within a week, you will likely encounter increased mould and end up with wasted hay.

8. Horses don't have a preference between dry, steamed and soaked hay

False. The results are in from a Guelph study on soaked, steamed and dry Canadian hay. Steaming comes out on top! <https://www.equineguelph.ca/news/index.php?content=622>

9. Hay testing is an important step for correctly balancing your horses diet.

True. Nutrients will vary with the 'type' of forage (grass vs. legume) and its level of maturity (when it was cut). Knowledge of this will allow you to make informed decisions when choosing feed and/or balancers to make up the difference between what your horse is getting from its forage and what it needs to meet its nutrient requirements.

10. When feeding grass hay your first limiting amino acid is likely to be:

a) Theronine

b) Lysine

c) Tryptophan

If you are feeding a grass hay, your first limiting amino acid is going to be Lysine. For alfalfa, the first limiting amino acid could be threonine or tryptophan. Knowing what 'type of forage' you are feeding is key to knowing what supplements you need to choose to complement your horse's diet. Learn more with this article: Nutrient replacement for optimal performance <https://www.equineguelph.ca/news/index.php?content=454>

First Limiting Amino Acid, determines how much of all of the other amino acids can be absorbed.



More References:

https://www.equineguelph.ca/pdf/facts/HAY%20AND%20HAYLAGE%20SEPT%2015_04.PDF

<https://www.equineguelph.ca/pdf/facts/HAYCOMBUSTION.PDF>

[Are you concerned about your hay](https://www.equineguelph.ca/news/index.php?content=55)

<https://www.equineguelph.ca/news/index.php?content=55>

Keep learning!

TheHorsePortal.ca offers a [short course](#) on Gut health and Colic Prevention. [12 week courses](#) are also available in Nutrition and Advanced Equine Health through Nutrition at EquineGuelph.ca