

What is fructan overload?

Fructan is a type of sugar found in cool-season grasses.

When horses consume more fructan than they can digest in their foregut, it escapes into the hindgut where it can cause harmful imbalances.

Horse ingests too many fructans.

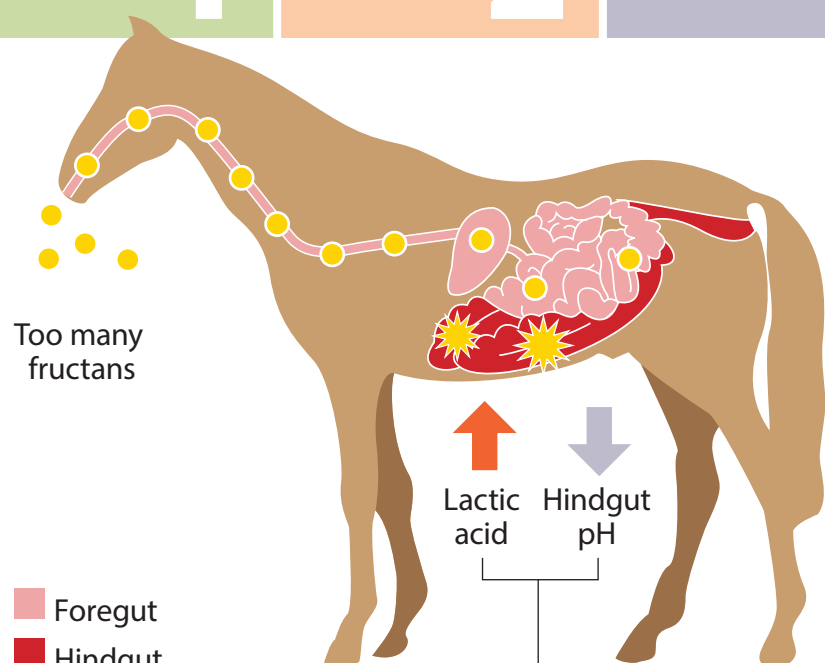
1

Undigested fructan escapes into the hindgut.

2

Once in the hindgut fructan quickly ferments, resulting in lactic acid buildup.

3



Too many fructans

Lactic acid
Hindgut pH

Foregut
Hindgut

COLIC **LAMINITIS**

Hindgut pH drops, making the environment more acidic.

4

Beneficial bacteria die off as harmful bacteria flourish.

5

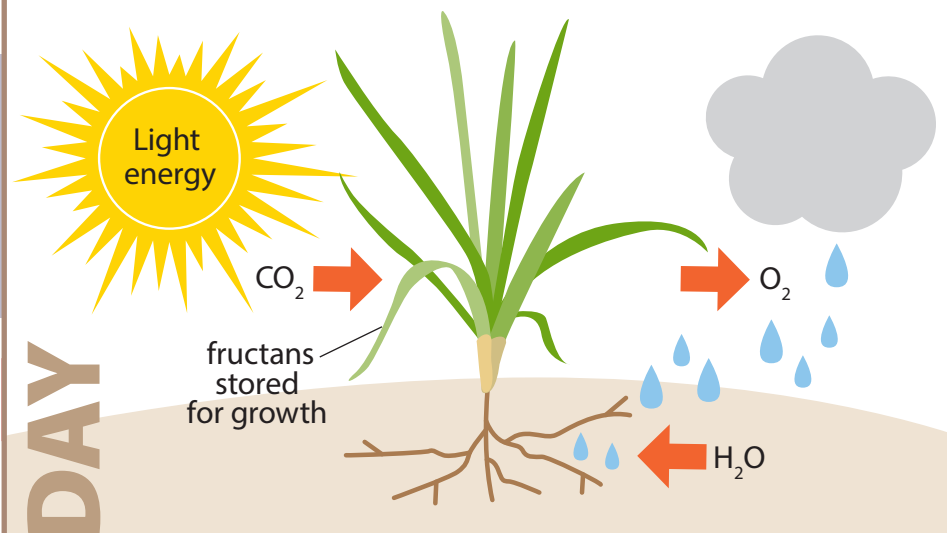
The resulting imbalances in pH and the microbial population lead to colic and laminitis.

6

Temperature and sunlight affect fructans.

In plants, a process known as photosynthesis produces fructan.

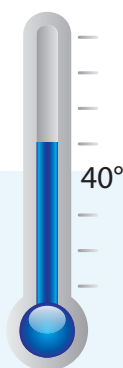
Photosynthesis occurs only during daylight hours. The sunnier the day, the more fructan is produced in a plant.



DAY

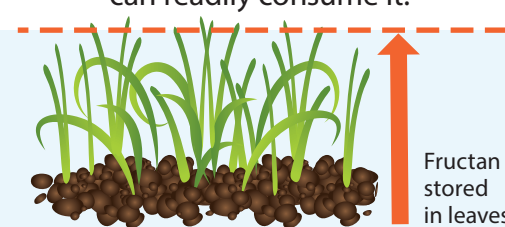
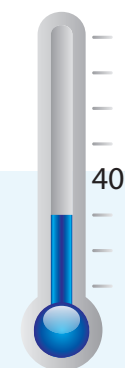
NIGHT

When days are warm and night temps stay ABOVE 40° fructan is used to fuel growth. Unused fructan is stored in the lower two inches of the stem.



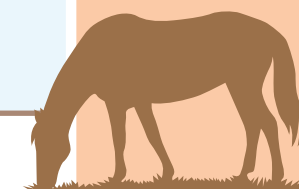
Unused fructan stored bottom 2"

When days are warm and night temps drop BELOW 40° growth does not occur and fructan remains in the leaves where horses can readily consume it.



Fructan stored in leaves

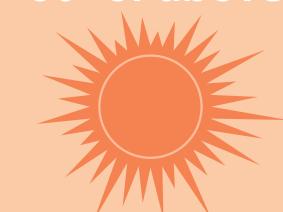
Horses restricted from grazing fresh grass are at risk for developing vitamin E deficiencies



Spring and fall pastures hold hidden dangers.

Overweight horses and horses suffering from metabolic disease are at risk for fructan overload. Grazing should be restricted or stopped completely when days are warm and nights are cool.

WARM DAYS
60° or above



RESTRICT

+

COOL NIGHTS
40° or below



GRAZING



Kentucky Performance Products, LLC

info@KPPusa.com
KPPusa.com
859-873-2974

Elevate® Maintenance Powder

Supplementation with natural vitamin E is essential for horses and ponies that don't consume substantial green grass. Elevate is a highly available source of natural vitamin E.



Copyright © 2015 Kentucky Performance Products, LLC. All rights reserved.