Need to Know: How weather & climate affects horses

The seasons in Alberta can impact many aspects of the care provided to a horse, particularly nutritional and sheltering needs. The extent to which weather and climate affects care is also influenced by whether the horse is kept at a boarding facility or at home, is out in pasture, in a paddock or is stalled part of the time.

KNOW HOW SEASONAL CHANGES CAN AFFECT NUTRITIONAL NEEDS

Seasonal influences on a horse’s nutritional needs vary, depending on location. If you are located in an area that has very mild seasonal changes, the seasonal influences might be so little that you don’t have to make any changes to a horse’s diet.

On the other hand, if you live in a place that has drastic differences between seasons, the horse’s nutritional needs will be more impacted. Both extreme hot weather and extreme cold weather can be difficult for horses to handle.

The impact of seasonal changes can depend on where and how the horse is sheltered. For example, a horse kept out on pasture full time is affected more by seasonal changes than a horse that is stalled part of the time.

Summer and winter are often times when horse owners or caregivers need to adjust a horse’s diet due to seasonal influences on nutritional needs, but spring and fall can also result in challenges, especially if a horse is pastured full time.

DO YOU KNOW enough about feeding requirements for a horse? If you think you need to know more to understand the effects of seasonal requirements, go to How to feed a horse in the inquiry topic, Know how to feed your horse at www.ctsanimals.ca/va2070/nutrition.html.

Watch the Effect of environmental factors video on the Virtual Apprentice 2070 website at www.ctsanimals.ca/va2070/F4V_vids/ElementsAffectYourHorse.html for more information and insights into the connection between the environment and sheltering decisions.

During the early spring, attention should be paid to a horse’s grass intake. As the green in spring pastures increases, so does the risk of colic and laminitis or founder.

As the new grass grows in, it is a tempting treat for many horses, who may over-indulge if given the chance. There are different strategies that can be used to control grass consumption.

Horses can be fed hay so they are full prior to turnout. This strategy will limit their grass intake.

DO YOU KNOW what colic is? If you think you need to find out more, go to How to deal with disease in the inquiry topic, Know how to care for your horse’s health at www.ctsanimals.ca/va2070/nutrition.html.
Grass intake can be controlled by limiting the amount of time a horse is out in pasture. This works best for owners or caregivers who have time and opportunities to turn horses in or out, or only have one large pasture.

- Using this method, your horse is turned out for progressively longer periods of time until they are turned out for the desired amount of time. It is usually recommended to start with a time period between 15 to 30 minutes, the shorter time for horses at higher risk for colic and/or laminitis, longer for horses that aren’t prone to these issues.

- Every 3 to 5 days, increase the turnout time by 15 to 30 minutes, until you are eventually at the entire desired turnout time.

Grass intake can also be controlled by limiting space available to a horse. This can often be easier for owners or caregivers who don’t have time to turn horses in and out every day during the transition period, or have willful horses that refuse to be caught short periods after being turned out.

- During the entire transition period, horses should be watched carefully for signs of colic or laminitis, or any other problems.

- It is possible to start your horse’s transition to grass at either at the first signs of green, or to wait until a bit later in the season. The ability to wait until later in the season is a benefit for owners or caregivers who have particularly delicate pastures, new pastures, or pastures that often remain extremely wet until later in the season.

- Using this method, the horse is turned out into a smaller pasture right before the grass begins to grow. Since the pasture size is limited and the grass only grows so fast, these two factors work together to naturally limit how much the horse can eat.

- For horses more prone to laminitis or colic, the pasture size should be smaller, compared to a bit more generous for horses not at high risk.

In the foothills of the Rocky Mountains, chinooks are a fact of climate and life. These warm winds, originating as moist, cool Pacific coast winds are blamed and blessed for the havoc and heaven they bestow upon southern Alberta.

Some wonder how chinooks affect their horses, and whether particular care requirements could better support their equine populations in dealing with these seasonal winds. "Generally speaking, horses are quite well adapted for the large temperature swings that can occur in chinooks," explains Dr. Greg Andrews, equine practitioner at Moore Equine Veterinary Centre in Calgary.

"The three areas that could be affected by temperature swings are the animal getting too cold or too warm, sudden changes in eating and drinking patterns — and these things may result in a potential increase in colic and gastrointestinal upset," he added.

With either method, horses should be closely monitored at least daily to ensure that they are not showing signs of problems. Horses that are particularly prone to colic or laminitis can also wear a grazing muzzle using either method, to further reduce their intake of grass.

Seasonal influences on horse nutrition are varied and impacted greatly by your location and environment.

Adapted with permission from Seasonal Influences on Horse Nutrition: Understanding Horse Nutrition website. www.understanding-horse-nutrition.com/seasonal-influences.html

**KNOW HOW SEASONAL CHANGES AFFECT SHELTERING NEEDS**

Horses can live outdoors comfortably in colder temperatures, as long as they are given time to acclimatize and provided with plenty of hay, ample water and simple shelter designed to protect against any bad-weather patterns of their location.

Shelter options for three basic wintertime weather conditions are described below.

**Dry and windy:** Strong winds that cut across the land can be even more chilling to unprotected horses than frozen precipitation. A windbreak fence with 20 percent porosity, which refers to the spaces within solid material, allows some wind to filter through and provides better downwind protection than a solid windbreak. If winds are variable, a three-section windbreak with walls arranged around a centre post like wheel spokes provides different options for protection. In areas of particularly strong winds, these sheltering walls need some openings to let air pass through; solid structures are more likely to be toppled by gusts.

**Rainy and windy:** Cold rain driven by strong wind can be miserable for horses. A simple three-sided, roofed structure offers adequate protection in these conditions. The structure should be located on a well-drained location with its back wall to the prevailing wind, and have a roofline that diverts rain runoff away from the entrance where horse traffic makes some mud inevitable. Have the floor graded with a slight slope to the sides and a slight crowning at the entrance to reduce the formation of mud inside the shed. For most satisfactory footing during the worst of the rainy season, invest in underground drainage and stone dust or aggregate surface materials during construction.
**Snowy and very cold:** If winter regularly brings snowstorms and consistent subfreezing daytime temperatures, turned-out horses can be safe and comfortable in a shed, but the construction needs to be solid and strong enough to stand up to heavy snow accumulation. Roof slope and strength are important. A steep pitch away from the entrance "shrugs off" snow accumulation where horses won’t be standing and reduces chances that the entrance will be blocked.

If properly sited with the opening facing the most protected direction (often south), a three-sided shed usually provides sufficient shelter, but in extra-cold areas, partial enclosure of the fourth side makes the interior cozier. Grade and maintain the shed floor to reduce mud formation, and bed it to make a dry, warm place out of the snow.

Natural shelters, including trees and bush, also provide excellent sheltering options for horses.

**DO YOU KNOW**

If you are interested in learning more about horse housing and shelters, find detailed information on housing and sheltering options in the *Know horse housing* inquiry topic on the Virtual Apprentice 3070 website at www.ctsanimals.ca/va3070/houseDesign.html.