



Snow: Good for Your Alfalfa

By John McGregor, MFGA Extension Support

So far the winter of 2015-16 has had its ups and downs where temperatures are concerned. As -20 C plus temperatures arrive, be happy that you received snow recently. Sure, snow created some problems, but snow is good — for alfalfa.

Alfalfa loves snow. In fact, nothing can increase the chance of alfalfa surviving winter better than a nice, thick blanket of snow.

Last fall's moderate weather allowed alfalfa plants to harden well for winter, leaving them with a high concentration of nutrients in their roots and adequate soil moisture. This winterized condition enables alfalfa crowns and roots to withstand temperatures down as low as -12 degrees above zero.

Now I know this doesn't sound all that cold. After all, air temperatures have gotten and will likely get, much colder than that. Fortunately, the soil doesn't get as cold as the air above it and when soil is covered with a blanket of snow, this snow acts like a layer of insulation protecting the ground from cold temperatures and reduces the rate that soil and alfalfa roots dry out. This is why winters with little snow cover can cause more injury to alfalfa stands, especially if soils are dry.

Presently, it looks like soil temperatures at the 2-inch depth across Manitoba are in the -4 to -6C range. During the mid January cold spell, we saw soil temperatures drop into the -6 to -8 range with the Souris and Starbuck site reaching -10.

Of course, management practices in the fall influence the affect of snow on your alfalfa. Tall stubble provides some insulation value itself and will catch more snow and, avoiding alfalfa harvest during the so-called risk period from late August to the end of September helps alfalfa roots winterize by building up nutrients and reducing water content.

Thick snow at this point is also helping to provide some protection from the extreme variations that we are seeing in the weather pattern this winter. With the wide swings of temperatures from -20 to +5, there is always the risk that the snow cover, if not thick enough, could melt forming a layer of ice at the soil surface. Because alfalfa plants continue to breathe throughout the winter, this ice layer can and does suffocate the plant.

We aren't out of the woods yet and you may not like the way snow disrupts your daily routine, but remember how valuable it can be for your alfalfa.

Other sources:

You can monitor soil temperatures for your area by going to the MAFRD weather site at:
<http://www.gov.mb.ca/agriculture/weather/soil-temperature.html>

You can check out snow depths at:
<http://www.wunderground.com/maps/us/SnowDepth.html>