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What to watch for in winter grazing

By Janet McNally, Hinckley, Minnesota — Prior to about 1990, grazing sheep into the winter on stockpiled forages was almost unheard of east of the western Plains. Today it is not uncommon to find midwestern and northeastern producers who plan for grazing well beyond the growing season. While few sheep producers in the northern states truly graze all winter, many of the more serious grazing farms work to stockpile forages to extend the grazing season at least 60 to 90 days beyond the end of the growing season.

There is plenty of incentive to do this. Winter grazing can offer serious feed savings, reducing the normal hay-feeding season by as much as one-half. Because the quality of stockpiled forage is often very high, it is not difficult to achieve great results as long as sheep are able to get their fill. Sheep grazing stockpiled pasture can actually outperform their hay-fed counterparts.

But I do get a little nervous when I hear new shepherds — especially those with little prior livestock experience — discuss plans to graze into the winter. While the basics of stockpiled dry matter and the snow depths suitable for grazing are fairly easy to convey in written word, it is much more difficult to explain to the novice just when sheep are done with winter grazing, and when supplementary feeding should begin.

One dilemma is that the forage is often buried under snow, and the quantity available for grazing cannot be measured. Nor can I readily give you precise ways to evaluate the difficulty of digging through snow. Most of what needs to be learned is a mental image of how well-fed sheep look and behave. By observing the sheep, you can identify appearance and behavior that will tell you what you need to know.

We have to begin with providing enough stockpiled forage for winter grazing. Forages that remain palatable and succulent under snow include orchardgrass, tall fescue, and turnips. Poor choices for winter grazing are plants that do not hold their quality after a freeze, such as alfalfa, reed canarygrass, and kura clover. Grasses need to be at least four inches, but preferably six to eight inches tall prior to snowfall. With normal rainfall this requires 30 to 60 days of stockpiling. While tall forage may seem to have advantages, many grasses (such as orchard) will be squashed flat by heavy snows if they are allowed to get beyond 8-10 inches tall. Do not expect sheep to graze forages under the snow to the same low residuals you would have in the summer.

Next, know your snow. Perhaps you have heard that the Eskimo people have many different words for snow. Graziers



also need a snow vocabulary. There is never just "ordinary snow." There is hard crusty snow, light fluffy snow, and wet snow. The type of snow affects accessibility of the forage below. One-quarter inch of ice on top of snow, or a wet snow followed by a deep freeze, can stop grazing overnight even if the snow is only a few inches deep. But a light fluffy snow, or wet snow in warm weather, can accumulate to considerable depths (over a foot) before the sheep are stymied. Often what you observe in your yard or near the road does not reflect what is out in the field. It is thus very important to get out and walk the paddock enough to know the snow conditions, and how the sheep are coping.

Now comes the hard part: When are sheep done grazing a paddock that is buried in snow? This is where some astute observational skills are required. Sheep do not wander willy-nilly throughout the paddock when grazing through more than four to six inches of snow. Digging through snow requires effort, and the least effort will be expended if the next bite of grass is immediately adjacent to the last bite. Each day, make a mental note of where the sheep are grazing, and where they have been. When you see the flock move away from a specific area, this is a signal that they have probably grazed all the forage within reach.

It is time to move when the flock has visited every aspect of the paddock. Observing the amount of trash or dead leaf material brought to the surface is one way to know when the forage underneath is pretty well grazed off. When you see what looks like plowed snow with trash mixed in throughout the paddock, you know the sheep are done grazing. Fresh snow will bury this evidence, which is one important reason why it is important to be observing the flock every day. (For me, "MaxiShock" fence - a twisted wire cable - on fiberglass posts has proven most durable for winter subdivision fencing. The posts can be driven into and removed from semi-frozen ground, while the MaxiShock can be ripped from snow and ice without breaking.)

Ultimately the decision to move or supplement will be based on observing the sheep themselves. Because breeding and early pregnancy coincide with winter grazing, it is important for flock owners to hone their observational skills to assure ewes do not lose any weight, which might impact embryo survival. By the time a change in body condition score can be observed, the damage has been done. So it is important to be able to recognize whether or not your sheep are full and properly hydrated on a daily basis.

Sheep that find enough feed will lie down after the morning graze by 10 a.m. If you observe them grazing up to 1 p.m., this is a clear signal they are having trouble finding enough to eat. Observe how far they move in a two-hour span. If the flock seems to stay in the same place, there is enough feed underfoot. Frequently moving great distances in the paddock, and revisiting distant corners in the space of a few hours, is a clue that forage is hard to find, or that what remains is not palatable. Learn to recognize what a full sheep looks like. This is where an experienced mentor is helpful. But this mentor needs to see your sheep, not just answer questions on the phone.

To a large degree, successful winter grazing depends on observing your sheep and making decisions based upon what you see every day. Shepherds working town jobs who do not get to see their sheep during daylight hours should consider asking a retired farmer to make a few observations through the week.

Winter grazing will not fit every situation. Some farms are too exposed, the shepherd is too new to sheep keeping, or off-

farm work is too demanding to allow adequate observation. But for those who can make it work, winter grazing will provide great savings in feed and labor.

Accounting for water and winter storms

Winter grazing brings with it a few unique requirements. Two areas that require extra thought are water, and feeding sheep in a winter storm.

Inadequate water intake over an extended period can result in embryo loss. Generally, sheep on succulent pastures with frequent late-fall rains and adequate, fresh snow throughout the winter do not need additional water. Rarely do snow conditions prevent adequate intake, but when snow has melted and then refrozen into hard ice, or temperatures drop well below zero, sheep might struggle. If in doubt, just ask the sheep. If they want to drink, they probably need the water. Most often you will find that sheep prefer to eat the snow beside the water trough.

Also important to winter grazing is how to prepare for a storm. The full rumen can hold enough feed for at least two days without causing harm to the sheep. In nature, ruminants tend to fill up prior to a storm, then wait it out in a sheltered area while chewing their cuds. Sheep are fully capable of doing this. You can help increase intake by putting them into a fresh paddock just prior to a big storm. An emergency feed plan is also a wise idea. Start by grazing the most remote paddocks first each winter, and save for last those that are most accessible to supplementary feeding. If necessary, you can store emergency feed beside the paddock just prior to the storm.

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