



## **Forage and Spring**

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The return of warm weather brings renewed growth in our hay and pasture fields and signals things we need to think about if we want a productive forage year.

### **Pastures**

When the pastures start to green up, we need to curb the urge to turn the cattle out too early. Turning cows out on immature forages too early can have consequences. The biggest challenge is to avoid permanent damage by overgrazing. If forages are overgrazed early, permanent damage of the stand is likely. In the spring, the first grazing on tame pasture should begin when there is 15 cm (6") growth, ideally 6-8 inches and in the 4 leaf stage. If there is a high proportion of legumes, especially alfalfa, an increased height should be used - 20-30 cm (8-12") growth.

Even more important is rotating cows through pastures to maintain four or more inches of stubble height and giving the plants a rest period. In early spring, rotation should occur more frequently to keep up with faster growth and then slow as summer approaches.

To understand the importance of waiting until there is considerable growth on your pastures before you turn your cattle out, you need to understand the grass and legume plant. In the fall, the plants stop growing and go dormant. During the winter they draw on these nutrients stored in the roots and stem base. Remember they are dormant which means they are still living. In the spring, the plant draws on these reserves to start growth. This draw down continues until the 3 leaf stage when there is enough leaf material for the plant to start manufacturing energy to continue growth. Plants that are over-grazed in the fall tend to go into winter with lower root reserves leaving less stored nutrients for the plant to draw on in the spring. Plants that are grazed too early in the spring continue to draw on stored reserves which lower plant health and productivity, and could lead to eventual death of the plant.

### **Alfalfa Winterkill**

The cold and lack of snow has the potential for a fairly high incident of winterkill in alfalfa. Spring green-up will provide an opportunity to evaluate alfalfa and forage stands. Here are some points that you can follow to assess if and how much winter damage you have and then make plans to address the potential of any forage shortfall.

Look for alfalfa crown buds to grow, and for stems to begin elongating. Healthy crowns are large, symmetrical and have many shoots. Weakened plants may grow but have only one or a few stems. Watch for delayed green-up, lopsided crowns, and uneven growth of shoots. If any of these characteristics exist, investigate further by checking for root rots and broken roots.

1. Dig up some plants from three or four locations in the field or the suspected area and inspect the root damage. Make sure you include the top six inches of the root.
2. Slice the root lengthwise and check for rot or discolouration inside the root.
3. If there is significant discolouration with 50% or more of the stems, then this stand will have poor winter survival for next year.
4. If there are a number of dead plants, determine if there is an economic stand left by counting the viable stems in a square foot (typically when the alfalfa is 4-6 inches tall). A stem density of 55 per square foot has good yield potential. If there are more than 40, it should provide a reasonable yield, if below 30, consider replacing the stand. Another option is to count the number of plants per square foot. An ideal number is ten or more, if less than three, consider renovation. If there is winter injury, the alfalfa crop will be slow to recover, so leave that first harvest until mid-bloom to allow the damaged crown to recover and build reserves. Before you start to tear up a field, do a complete survey.

If an alfalfa field shows early signs of winterkill, such as mushy plant crowns and roots, an early rotation decision allows you to designate and plant a new field of alfalfa in time to capture the full-season yield potential in a newly planted stand. First year alfalfa stands typically yield less than a robust established stand, so the key is to get newly seeded alfalfa off to a strong start in order to minimize the slow early growth period of newly seeded alfalfa.

If after you have assessed your alfalfa stand and decide that there has been substantial damage but are unsure or the amount or want to assure that your forage requirements will be met for the coming year there are some alternatives to help make up for the loss of forage. Some of these options include seeding down annual rye grass and/or red clover, corn for silage, cereals such as oat, barley or triticale, or a warm season annual such as millet. Seeding these into a winterkilled field can provide some or the entire nitrogen requirement of the crop, but alternatively seeding into a separate field helps to get the emergency forage off to an earlier start and provides more time to access the total damage to the alfalfa field. Check out this article on [Forage Options When Alfalfa Winterkill Strikes](#).

Grass mixtures are at risk too, since some grasses such as orchardgrass and tall fescue may not have as much winter survival potential as alfalfa. Consequently, growers should be prepared to evaluate the status of current alfalfa or alfalfa-grass fields as soon as possible after a soil thaw.