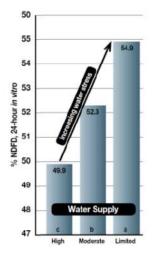
Throughout NB, crops are struggling as we come to the end of a hot, dry growing season. For livestock producers, it may be a real concern if their feed inventory will take them through until spring. We have gathered some resources from ag retailers and companies to provide timely, accurate information for producers as harvest time approaches.

Below: "Influence of water availability on fiber digestibility", Pioneer Research, LaSalle, CO. 2001



Corn

Drought stress in corn and its effects on yield is a matter of crop timing. The silk and pollen shed stage is the most critical time for plants to have moisture – this is why you

may see some missing kernels on your cobs. If you do not have cobs developing on your stalks, this will mean the plant will take longer to dry down as there is no grain present. Always sample plants and conduct a dry matter test before harvesting. The urge to harvest drought stressed corn early may lead to excess moisture in your bunk, causing run-off and loss of sugars during storage. When harvested properly, corn with little to no ears can still have decent feed value, with high digestible fiber and sugar content. When the milk line is one-third to one-half of the way down the kernel, it can be chopped for bunker silo storage without incurring significant effluent losses. Another option could be to harvest corn as snaplage/earlage, which is the result of harvesting the whole ear including husks, cob, ear shank and grain, which makes for a high energy feed. Be sure to discuss appropriate inoculants with your ag rep to decide what product is right for you inoculants are especially important to preserve feed that will be fed during warm weather.

A decent rain at this time would cause nitrates to be taken up by the plant, which becomes a risk for high nitrate levels if the crop is harvested too soon after rain. This can be toxic to livestock at high rates; ensiling will reduce nitrate levels, and TMR mixes can be adjusted to dilute a high nitrate corn silage. Nitrates can be tested at the PEI Analytical Lab under test T99 for Plant Tissue Testing for \$15/sample with the NBSCIA member discount.

Fall and Winter Emergency Forage Crops

Fall and winter crops can be an option for producers with grain crops coming off, or potentially for corn fields that will be coming off in early/mid-September this year. Adequate moisture is required for germination - walk your fields before planting!

Oats

If your region has received rain recently, you may be able to plant a fall emergency crop of oats for winter feed. Oats reach boot stage in 50-60 days and can produce a high protein, high yielding crop when harvested before heading out. Overall yield can range from 3500-4500kg/ha. Oats can also be grazed to extend the pasture season, as early as six weeks after planting. Seeding would ideally be done as soon as possible, into early September.

Winter triticale

Winter triticale is a cross between wheat and rye, which is being used more frequently in livestock rations for it's high biomass yields, as well as forage quality. Winter triticale will mature early in spring, and is best harvested at the flag leaf stage for best quality. Winter triticale should be planted about 10-14 days earlier than the optimum winter wheat seeding date in your region. In NB, planting for triticale could begin as early as September 1st until September 15th. Seed is available from Quality Seeds and Sussex Co-op.



<u>Fall rye</u>

Known for its winterhardiness, fall rye provides the earliest spring harvest, about 10 days earlier than triticale. Fall rye moves quickly through maturity and should be harvested early if rain is in the forecast. Corn can be planted following fall rye without much delay from regular planting dates.

Left: Photo Farm Progress, "The whole story on winter triticale"



Harvesting Drought Stressed Forages

If you are considering taking another cut off your forage fields, consider the long-term health of the stand before doing so. If the stand is not green, it is not photosynthesizing, and will not be able to transport energy well to the roots for regrowth before winter. The height of the mower setting will also impact regrowth. Setting your mower low may increase harvest volume, at the cost of slower plant regrowth and expending more energy stored in the roots. See the photo below, from Purdue Extension, which shows two plants cut on the same day, at 4-inch and ½ inch heights, after four days of regrowth. Crops that grow from crowns, such as alfalfa, can also be damaged from cutting too close to the ground and weaken the stand.

For harvesting in dry conditions, consider the following fire safety measures to protect yourself, your equipment, and your crop:

- Keep a tote of water with a pump and hoses close by your field
- Maintain your equipment and keep radiators free of debris to prevent overheating
- Keep a fire extinguisher and spade in each tractor



- Consider walking the field if it is known for being stony, to mark rocks that could cause sparks if struck
- Consider having a set of discs ready to hook on, to create a fire break if need be

Left: Photo from Purdue University Extension Newsletter 2020.5 - Orchardgrass four days after mowing at 4 inches (left) and ½ inch (right) mower heights