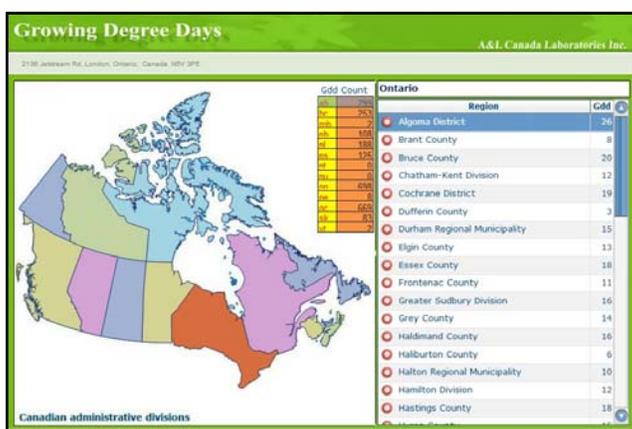




## Growing Degree Days

Growing Degree Days is a measurement of the accumulation of heat based on mean daily temperature above 5 C. There is a correlation between growing degree days and plant maturity in forages, similar to heat units and corn. By tracking the quality analysis (Protein, ADF, NDF, Lignin, RFV) and growing degree days we can estimate the optimum harvest date of a forage crop.

A&L has launched a website that automatically records the accumulation of GDDs from several stations across Canada. This site can be accessed through the A&L website, Quick Links, Growing Degree Days, or at <http://gdd.alinkinfo.ca/algddService/index.jsp>



Fields exist on the GDD web page that can be populated with analytical data associated with samples from corresponding geographical areas. Samples can be taken from weeks prior to harvest up to the harvest date. The change in quality of these samples can be used to indicate the rate of change of forages in this area, From this information, a harvest plan can be created.

Samples sent in for this project, should be submitted as "GDD reference samples". The location from which the samples were taken

included if different from the sender's address or location.

Those who wish to only sample once very close to the assumed harvest date can submit samples for Rapid Scissor Cut analysis. These samples are processed for next day turn around.

## Grain Quality Report

We now have available a Grain Quality Report especially for corn grain, high moisture corn and corn cobmeal. This is based on the work of Hoffman and Shaver.

Included in this report, are dry matter, protein, ADF, NDF, fat, ash, starch, net energies, metabolizable energy, ammonia (% DM), ammonia (% CP), prolamin (unfermented samples), mean particle size, ruminal and total tract starch digestibility, starch fermentation rate and grain quality index.

## Fecal Starch Evaluation

Analysis of composite fecal samples from animals on similar diets, can uncover some possible reasons for reduced performance. Total tract starch digestibility can be determined from fecal starch analysis, according to Ferguson's work, and that of Ferraretto and Shaver.

Dr. Ferguson recommends that fecal starch be less than 5%. It is estimated that there is a loss of 0.33 kg of milk per cow per day for every one percent fecal starch greater than 5%.

A manure evaluation package is available which includes dry matter, protein, ADF, NDF, fat, ash, starch, lignin, total tract starch digestibility, and estimated milk loss.