

# Forage Growth and Quality is Impacted by Dry Growing Conditions

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One of the main objectives of a plant during the growing season is to produce a viable seed head so that the species can develop new seedlings in the next year. Survival is the long term objective.

In a normal growing season, plant development follows a balanced pattern for carbohydrates or sugars, protein, and fibre. In dry years, plants mature quicker which reduces the total amount of growth (yield), but fibre increases and protein decreases at a faster rate than normal.



The nutritional content of the forage changes dramatically after the plants have headed out and the seed heads have been fertilized. At that point, nutrient resources are put into developing a viable seed, rather than putting nutrients into the leaves or root system.

In grass species, the maturation process in a dry year, can be 2 to 3 weeks sooner than in a normal year. Thus, quality reduces more rapidly. Protein content drops by 1 to 1.5% per week and TDN content drops by 3 to 4 % per week. In a dry year, cutting by calendar date could result in the hay, greenfeed or silage being considerably lower quality than expected. Colour of the hay or greenfeed is not a reliable indicator of quality. For silage, plant sugar content drops as the plant matures. Sugars are needed to drive the silage fermentation process.



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