Is Fall Green-Up Significant?

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Fall green-up does not occur every year. Methods have been developed to determine whether or not fall green-up occurs at each SNOTEL and Climatological site in the Greater Yellowstone area. It is based on climatic conditions after the first killing frost (daily Tmin of 22^0 F or less) and growing degree days and precipitation that occur after that point. Green-up vegetation may be available into January or February if snow covers the vegetation before another Tmin of 22^0 F or lower occurs. Crude protein of cured grasses is about 3 to 7 percent. Ungulates need crude protein of about 6-8 percent in order to maintain fat reserves. Green vegetation has a crude protein of about 10 to 13 percent. Years with no fall green-up can make winter survival difficult for males, especially bull elk trying to recover from the rut. Winters that are more severe can further affect survival. Predators may capitalize on animals in poorer physical condition. Methods and procedures used to determine which years fall green-up occurs will be presented and possible impacts of fall green-up will be discussed.