

ENVIRONMENTAL LOSSES THROUGH HEAVY GRAZING IN TEMPERATE GRASSLANDS OF UTTARAKHAND HIMALAYA

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ABSTRACT

Garhwal Himalayas has fabulously rich biotic wealth, especially in terms of Biodiversity. The vegetation Spectrum due to various influences like altitude, topography, aspect, slope, local edaphic controls and microclimatic patterns is quite distinctive along different valleys. Uncontrolled grazing is highly detrimental to grassland regeneration. Trampling, grazing and browsing kills most of the seedlings and has done the maximum damage of indian grasslands particularly their regeneration. The grazing time was found to be longer in June or Cows, oxen, Goats and Sheep and in April for Buffaloes. The average time spend for grazing over the whole year was greater for Oxen (5.7 hrs/Day) followed by Goats (5.66 hrs/Day) and least for Cows (5.45 hrs/Day). Bite frequency for all animals was higher during morning and evening hours of the day. The average bite frequency was greatest for Goats amounting 1089.46 and for Sheep amounting 952.77 bites per day. The variation in bite frequency in different months depends mainly upon the available biomass above the ground. The maximum average herbage exploitation was observed 23.14 and above to six-year-old oxen. However, the minimum average value of herbage exploitation was found to 7.91 for Goats and 8.15 for Sheep. Open grazing shows pronounced effect on the production of grassland community in the present study. The higher production of green biomass was recorded at protected site over open grazing losses It can be concluded that open grazing disturbs the species distribution in the grassland communities. The most palatable species get eliminated from the area due to heavy grazing. The green biomass of the species was also observed reducing due to excessive grazing and trampling of grazing animals.

Key words: Environmental Losses, Grazing, Temperate Grasslands, Uttarakhand

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