

Pasture and Range Health FACTSHEET

GRAZING FREQUENCY AND UTILIZATION



Determining Grazing Frequency and Utilization

When developing a grazing management plan you will have to consider both grazing frequency and utilization of every pasture in your grazing rotation. This factsheet will attempt to answer some questions that you may have as well as guide you through the process of making these decisions.

Frequency

In order to reduce the impact of grazing the critical growth periods for each key plant species should be determined. Critical growth periods are defined as periods when your key plant species are most susceptible to grazing. In upland areas these periods generally occur from late spring to early summer and from late summer to early fall. Late spring and early summer constitute the periods when plants are trying to generate enough photosynthetic leaf material for continued growth, whereas late summer to early fall represents the period when excessive browsing of woody vegetation is most likely to occur. These critical periods vary by site and are dependant on soil moisture, plant species composition, and animal behavior patterns. Once identified, it is then important to limit grazing during these critical periods to no more than once every three or four years. If this is not possible, reduce grazing intensity (leave more stubble) during these critical periods. Frequency is also dependant on the present condition of your pasture. If it is badly degraded, either rest or deferment may be needed to kick start recovery.



If you plan to graze a pasture more than once per growing season it is extremely important to ensure that adequate rest is built into your rotation. In general, depending on site condition and the types of plants you are dealing with, rest periods of at least 30 to 60 days will be needed in order to prevent overgrazing. Finally, it is generally accepted that grazing a pasture more often combined with short time (three weeks or less) and adequate rest/recovery periods is preferable to fewer and longer grazing periods when managing for pasture and range health.

Grass and Forb Utilization

As with timing and frequency, you must also consider utilization when developing a grazing management plan. Due to the amount of variety that exists throughout British Columbia, it is impossible to suggest absolute utilization values as they vary depending on current riparian condition, grazing system, and management objectives. In general, utilization values around 50% are generally considered appropriate to maintain pasture and range health.

When using average stubble heights as measurements of utilization it is also important to note that they also vary depending on the condition of your tame pasture and range, site potential, grazing system and management objectives.



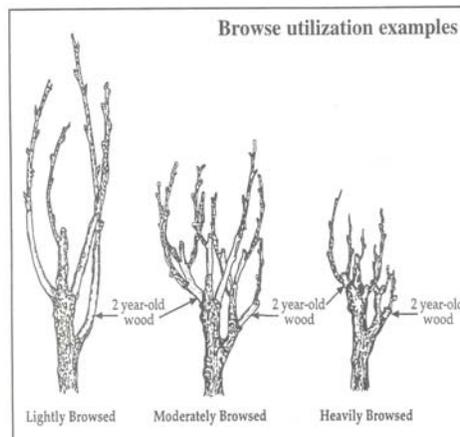
The table below gives you general rules of thumb for the height of forage that should remain after grazing or harvesting:

PLANT SPECIES	AVERAGE STUBBLE HEIGHT	
	CENTIMETERS	INCHES
Kentucky Bluegrass	5 to 10	2 to 4
Bluebunch Wheatgrass	15	6
Rough Fescue	15	6
Idaho Fescue	10 to 15	4 to 6
Bluejoint	7 to 10	3 to 4
Pinegrass	10 to 15	4 to 6
Alfalfa	7 to 10	3 to 4
White Clover	2 to 7	1 to 3
All Other Clovers	7 to 12	3 to 5
Orchardgrass	7 to 15	3 to 6
Tall Fescue	5 to 7	2 to 3
Smooth Bromegrass	7 to 10	3 to 4
Crested Wheatgrass	7	3

Browse Utilization

In addition to grasses and forbs it is also important to determine whether woody vegetation is being used. Woody plants play an important role in maintaining or restoring the functionality of a riparian area. Over utilization heavy use in the adjacent diagram) of woody plants can result in a reduction of woody plant vigour, leading to the elimination of preferred woody plants and an invasion of disturbance and/or weed species. It is also important to note however, that light to moderate use (diagram below) helps maintain woody plant vigour.

Before considering these numbers, it is important to note that utilization levels (including stubble heights) are just tools that will assist you in determining livestock use and distribution. To learn how to measure both stubble height and browse utilization, please refer to Factsheet 7 in this series titled, **Monitoring Grazing Lands**.



FOR FURTHER INFORMATION CONTACT

Darren Bruhjell, PAg, CPRM
Phone: (250) 371-6058
Email: Darren.Bruhjell@gov.bc.ca

INDUSTRY COMPETITIVENESS BRANCH

BC Ministry of Agriculture, Food and Fisheries
162 Oriole Road
Kamloops BC V2C 4N7