

## 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 riparian 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 stream banks are most susceptible to trampling and 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 period(s) to no more than once every three or four years. Frequency is also dependant on the present condition of your riparian area. 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 riparian degradation. Finally, it is generally accepted that grazing a pasture more often combined with short time (three weeks or less) and rest/recovery periods is preferable to fewer and longer grazing periods when managing for riparian 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 from 50 to 65% are generally considered appropriate to maintain riparian health.



When using average stubble heights as measurements of utilization it is also important to note that they also vary depending on current riparian condition, site potential, grazing system and management objectives. The table below will give you general rules of thumb for end of season stubble heights for various British Columbia grasses:

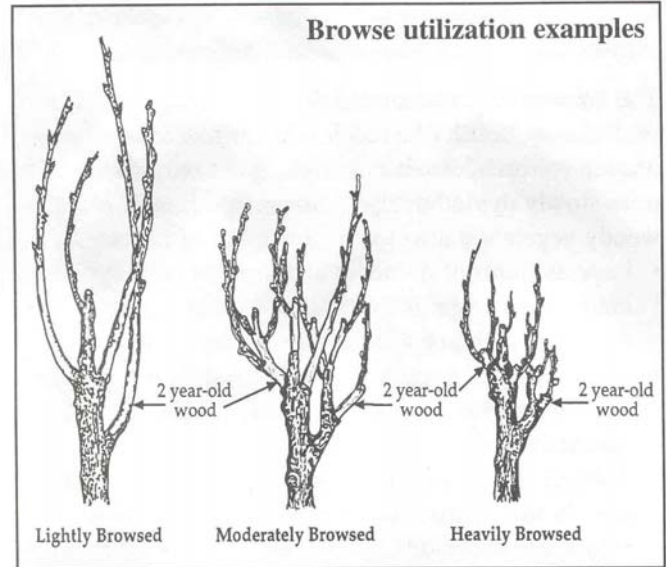
Plant Species	Average Stubble Height	
	centimeters	inches
Sedges	10 to 15	4 to 6
Kentucky bluegrass	5 to 10	2 to 4
Giant wildrye	10 to 15	4 to 6
Bluejoint	7 to 10	3 to 4
Tufted hairgrass	7 to 10	3 to 4
Rushes and cattails	Minimal use	

## 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 diagram below) of woody plants can result in a reduction of woody plant vigor, 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.

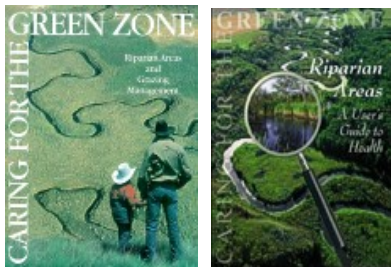
Before considering these numbers, it is important to note that utilization levels (including stubble heights) are just tools that will assist you in determining livestock use and distribution. To learn how to measure

both stubble height and browse utilization, please refer to Factsheet 7 of the Range Riparian Factsheet Series, **Monitoring Riparian Areas**.



## Further Information

To learn more about this topic please refer to the following documents:



1. Caring for the Greenzone. Available online: <http://www.cowsandfish.org/greenzone.html>
2. Riparian Areas: A User's Guide to Health. Available online: <http://www.cowsandfish.org/usersguide.html>.
3. Management Techniques in Riparian Areas. Available online: <http://www-a.blm.gov/riparian/tech.htm>
4. Grazing Management for Riparian-Wetland: Available online: <http://www-a.blm.gov/riparian/tech.htm>.



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