B.C. MINISTRY OF FORESTS
LOGGING ON MULE DEER
WINTER RANGE: A GUIDE FOR
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How to protect the stand

Because the maintenance of large, old Douglas-fir is of prime importance to deer, extra care must be taken during logging to minimize damage to these trees and to discourage the spread of beetles. Young trees must also be protected so they can grow to provide deer habitat and contribute to future cuts. Ways of protecting the stand are indicated below.

The logging pattern

Part of a typical cutblock of winter range logging is shown below. Note that skid trails are carefully located since they may be used for future passes. Approximately 1 to 6 trees are cut in patches and the ridge is left unlogged; more trees are cut in the gully.

Where can this logging system be used?

This logging system was designed for interior Douglas-fir winter ranges where mule deer require snow interception cover. It is the product of several years of research conducted in the Cariboo Forest Region and is directly applicable to winter ranges in that region. Although forest, climatic, and biological conditions may differ in other regions, managers may find the system useful by adapting it to local conditions.

For more information

The pamphlet is a guide for loggers. Forest managers considering logging on winter ranges and those wanting additional information are advised to refer to the:

- Handbook for Timber and Mule Deer Management: Coordination on Winter Ranges in the Cariboo Forest Region.

(Land Management Handbook, 2004 (20H-162), No. 22)

Copies are available at a cost-recovery price from Queen's Printer Publications, Parliament Buildings, Victoria, BC, V8V 1X9.

Comments and queries are welcome. Please direct your feedback to Randall Anderson, Wildlife Habitat Biologist, Ministry of Forests and Lands, Research Branch, 341 Harkland Street, Williams Lake, BC, Canada, V9B 3N4.
How to select trees to cut

Log small groups of trees

Cut groups of trees rather than uniformly thinning the stand because clumps of cover trees are essential to deer. Typically, not more than 2 to 6 trees should be cut as a group.

Leave ridges and concentrate logging in gullies and northerly aspects

Ridge-tops and knolls are very important to deer and should not be logged. Warm southerly aspects are also valuable and should only be logged lightly. More trees can be cut in gullies and on northerly aspects.

Leave many of the largest trees

A mix of trees of all size classes provides the ideal stand if it includes a significant proportion of older, larger trees. These trees intercept snow and provide food in the form of broken branches and twigs. Logging should promote a stand with a variety of size classes, including larger trees.

How to log on winter range

To protect mule deer habitat and still produce timber, LOW VOLUME SELECTIVE LOGGING should be used on winter range. The faller should select which trees to cut using:

1. the information in this pamphlet;
2. the selection criteria in the logging contract.

Best results will be achieved if the entire crew is aware of the specialized practices described here for logging on winter range.

Steps for logging on winter range

- Locate major ridges, gullies and timber types within the cutblock before building landings and skid trails.
- Lay out and construct narrow skid trails to access the whole cutblock, but do not build trails along ridges.
- Estimate the number of loads to come from the area serviced by each landing to meet the percent volume removal for each timber type.
- Fall in two passes.
- On the first pass, cut fewer trees than needed to meet the percent removal, concentrating on the pine and spruce (if they are present).
- On the second pass, remove additional trees to reach the percent volume removal, including rub trees and those with severely damaged crowns.

Logpole pine and spruce may be logged

Single, isolated trees are less important to deer because they do not intercept much snow and are difficult for deer to reach when the snow is deep.