

# Vegetation Management Using Sheep

## Summary of Forest Plantation Brushing with Sheep: Grazing Activity for 2003\*

2003 Provincial Estimates		Funding Sources		Activity within Forest Regions		
		Licensee	MoF	Coast	Southern Interior	Northern Interior
<b>Total hectares treated</b>	1 900 100%	1 510 80%	390 20%	0 0%	280 15%	1 620 85%
<b>Number of contracts</b>	8	7	1	0	3	5

### Comments/Additional Information

<b>Length of contracts</b>	10–80 day terms	<ul style="list-style-type: none"> <li>100 ha were grazed twice in 2003 (spring &amp; summer). Cost (\$/ha) and Production (ha/day) include the second treatment.</li> <li>7 of 8 contracts had some treatment areas with rough access I.E. 4WD all-terrain-vehicle. Distances to camp range 1-7 km.</li> <li>7 contracts had 20-40 km moves between treatment areas.               <ul style="list-style-type: none"> <li>Distance traveled (trailed) per day ranged from 8-30 km.</li> <li>3 contracts used livestock liners for distances greater than 40 km.</li> <li>1 contract used livestock liners six times; distances between treatment sites averaged 100 km.</li> </ul> </li> <li>Full season and multi-year contracts reduced costs.</li> </ul>
<b>Hectares per contract</b>	Range: 22–391 Average: 240	
<b>Production (ha/day)</b>	Range: 2.2–6.3 Average: 5.2	
<b>Cost (\$/ha)</b>	Range: \$260–\$400 Average: \$350	
<b>Brushing quality:</b>	>97%	
<b>Approved for payment:</b>	100%	<ul style="list-style-type: none"> <li>4 proponents used one-plot-per-hectare Brushing Quality Inspection Plots to assess 950 hectares (50% of total hectares treated).</li> <li>4 proponents used a visual walk-through and random plots to assess 950 hectares (50% of total hectares treated).</li> <li>100% brushing quality required 75-85% removal of (edible) target vegetation with nil damage to crop trees.</li> </ul>
<b>Crop tree damage</b>	Range: 0.1–5% Average: 2.2%	

\* Source of information: Brushing (sheep grazing) contractors and proponents (Ministry of Forests and Licensees).

<b>Sheep numbers</b>	10 200	<ul style="list-style-type: none"> <li>• Eight contracts were completed during 2003. <ul style="list-style-type: none"> <li>a. One contract used sheep from BC only.</li> <li>b. Four contracts used sheep from Alberta only.</li> <li>c. Three contracts used sheep from BC and Alberta.</li> </ul> </li> <li>• Number of producers per contract herd: Range: 1–7; Average: 2.6</li> <li>• 3 of the projects used herds of 900, 950 and 2900 sheep</li> <li>• 3 of the projects used herds of 1000–1200 sheep.</li> <li>• 2 of the projects used herds of 1400–1600 sheep.</li> </ul>
<b>Total number of herds used</b>	7	
<b>Herd sizes</b>	Range: 900–2900 Average: 1450	
<b>Sheep losses</b>	22 out of 10 200 (0.002%) (<¼ of 1%)	<ul style="list-style-type: none"> <li>• 2 contracts had no sheep losses of any type.</li> <li>• Hellebore poisoning on 5 contracts.</li> <li>• Various losses include trucking deaths, injury, cast and pile-up.</li> </ul>
<b>Cause of sheep losses</b>	poison (9) various (14) predator (0)	<ul style="list-style-type: none"> <li>• All contractors noted predators (bear, coyote, wolf, cougar). No sheep/predator interaction occurred. Guard dogs ranged 2-6 per flock.</li> </ul>
<b>Total cost of activity</b>	\$643,000.00	<ul style="list-style-type: none"> <li>• Cost does not include proponent administration (planning, quality inspections or reporting).</li> </ul>
<b>Participating forest regions:</b>		<ul style="list-style-type: none"> <li>• (2) Northern Interior, Southern Interior</li> </ul>
<b>Participating forest districts:</b>		<ul style="list-style-type: none"> <li>• (7) Central Cariboo, Fort St. James, Headwaters, Mackenzie, Peace, Prince George.</li> </ul>
<b>Nearby town or landmark:</b>		<ul style="list-style-type: none"> <li>• Chetwynd, Fort St. James, Horsefly, Likely, Mackenzie, McLeod Lake, Vavenby.</li> </ul>
<b>Percent of 1900 total hectares treated by Biogeoclimatic (BGC) Zone:</b>		<ul style="list-style-type: none"> <li>• 50% Engelmann Spruce-Subalpine Fir (ESSF wk1) (ESSF wk2)</li> <li>• 10% Interior Cedar-Hemlock (ICH wk1) (ICH wk2)</li> <li>• 40% Sub-Boreal Spruce (SBS dw3) (SBS mk) (SBS wk1) (SBS wk2).</li> </ul>
<b>Percent of 1900 total hectares treated by types of vegetation grazed:</b>		<ul style="list-style-type: none"> <li>• 60% fireweed/shrub (fireweed, thimbleberry, raspberry, huckleberry, rhododendron)</li> <li>• 30% fireweed/herb (fireweed, grasses, valerian)</li> <li>• 10% deciduous/herb (aspen, fireweed, herb)</li> </ul>
<b>Comments:</b>		<ul style="list-style-type: none"> <li>• Contractors and proponents report difficult access to treatment sites on de-activated roads (frequent, deep cross-ditches).</li> <li>• 75% of areas had no site prep and dense slash; 15% was mounded.</li> <li>• Slopes averaged 35-50%.</li> <li>• Dispersed patches of NSR were fillplanted and targeted for treatment on one contract.</li> <li>• 1 contract successfully trailed sheep to sites from home each day.</li> <li>• Successful grazing of dense slash, steep slopes and less-preferred vegetation is contributed to skilled shepherding.</li> <li>• All 8 contracts in 2003 were successfully completed by 6 brushing (sheep grazing) contractors.</li> </ul>