

Appendix C

Crown Timber Utilization Standards

April 2022

Introduction

In accordance with the *Crown Lands and Forests Act* (Regulation 86-160, Section 9 and 10), it is DNRED's expectation that all approved merchantable Crown timber is harvested; each tree is processed to maximize the stumpage value of primary forest products and that minimal wood waste occurs.

Although the *Crown Lands and Forests Act* prohibits wasteful cutting practices, the Department acknowledges that it is difficult and not feasible to completely avoid production of merchantable waste on Crown land harvest operations. Therefore, in order to assess industry performance, DNRED has established utilization standards for processing of appropriate species/product combinations, and a maximum block level waste tolerance.

The intent of the utilization standard is to identify the minimum specification for merchantable products so that the assessor can determine whether maximum stumpage value has been processed from each tree and whether it has been placed in the appropriate product pile at roadside.

The intent of the maximum waste tolerance is to allow for the assessment and/or measurement of merchantable waste consistent with the *Crown Lands and Forests Act*, while maintaining a focus on continual improvement.

Merchantable Waste

Merchantable waste is defined as any piece that could have been produced as a merchantable product, or a part of merchantable product, in accordance with the Crown Utilization Standard. The maximum cumulative block level waste tolerance for Crown land is 3 m³/hectare.

Waste Category	Description
Waste in Felled Trees	<ul style="list-style-type: none">Any merchantable product as defined by the Utilization Standard, that is left unprocessed in any portion of a tree that has been felled.
Butting	<ul style="list-style-type: none">Butted pieces containing merchantable material will be counted toward the waste tolerance.Where necessary, efforts should be made to minimize the length of each butted piece.

High Stumps	<ul style="list-style-type: none"> • Stumps are to be kept below 30 cm in height from average ground level. • The volume contained in stumps above 30 cm will be counted toward the 3 m³/hectare waste tolerance. • Where snow conditions restrict the ability to cut stumps below 30 cm, the maximum allowable stump height may be increased to 40 cm. It is the Licensee's responsibility to document the extent of blocks where average stump heights are outside of the regulated 30 cm stump height requirement.
Standing Trees	<ul style="list-style-type: none"> • Merchantable product in standing trees within the approved harvest area that is not consistent with the prescription will be counted toward the waste tolerance.
Processed Merchantable Products	<ul style="list-style-type: none"> • Processed merchantable products that have been left in the block will count toward the 3 m³/hectare waste tolerance.

Processed Merchantable Products

The expectation is that all processed merchantable product is taken to roadside, sorted, and placed in the appropriate pile.

If DNRED determines that the volume of merchantable processed wood left on a block is excessive, remediation will be required as part of the corrective action plan. This applies even if the volume is less than the 3 m³/hectare waste tolerance.

Spruce – Fir – Jack Pine Crown Utilization Standards

Quality Factors	Sawable Material			Pulpwood & OSB	Round Wood Biomass & OSB
	Sawlog Diameter	Studwood Diameter	Pulp Studwood Diameter		
Diameter (min.)	18.0 cm DOB (17.1 cm DIB)	11.7cm DOB (11.1 cm DIB)	10.8 cm DOB (10.2 cm DIB)	10.8 cm DOB (10.2 cm DIB)	7.5 cm DOB (7.1 cm DIB)
Diameter (max.)	No Max.	No Max.	No Max.	50.0 cm DOB (47.5 cm DIB)	NA
Length (min.)	254 cm	254 cm	254 cm	244 cm	244 cm
Form Defects (max.)	1/3 Vol ¹	0	0		
Stain	Stain is not a defect when visible rings are present.				
Rot (max.)	25% of Diameter ²	0	0	1/2 Vol.	

¹The combined volume of form defect (i.e. sweep, crooks, heavy knots and seams) must be assessed when considering the utilization of sawlog diameter material.

²Measure of the face diameter (butt end).

Cedar Crown Utilization Standards

Quality Factors	Shinglewood	Fencing and Saw Stock	Semi-Treelength (shinglewood removed)	Treelength and Mixed Product
Diameter (min.)	20.1 cm DOB (19.1 cm DIB)	11.7 cm DOB (11.1 cm DIB)	11.7 cm DOB (11.1 cm DIB)	11.7 cm DOB (11.1 cm DIB)
Diameter (max.)	No Max.	No Max.	No Max.	No Max.
Length (min.)	254 cm	Fencing - 192 cm Saw Stock - 254 cm	N/A	Fencing - 192 cm Saw Stock - 254 cm Shingle - 254 cm
Form Defects ²	max 20 % sweep or crook	<ul style="list-style-type: none"> no sweep or crook for pieces with top size 12-16 cm class (11.7 - 17.9 cm DOB / 11.1cm - 17.0 cm DIB) max. 10 % sweep or crook for 18 + cm class (\geq 18.0 DOB / 17.1 cm DIB) 	Sweep and crook are acceptable as long as there are merchantable pieces present.	
Rot ³	<ul style="list-style-type: none"> No rot maximum; as long as three faces contain at least 10 cm of clear wood for shingle production. 	<ul style="list-style-type: none"> no rot for pieces with top size 12-16 cm class (11.7 -17.9 cm DOB / 11.1 cm -17.0 cm DIB) max. 10% diameter for 18 + cm class (\geq 18.0 cm DOB / 17.1 cm DIB) 	<ul style="list-style-type: none"> All material greater than 20.0 cm DOB / 19.0 cm DIB butt containing rot is to be produced as shinglewood. 	

* Only applicable where local markets exist

² No splits or forks

³ No dead wood for any product

Notes:

- Where cedar is scaled in tree-length form (mass or tree-length small butt scale) butting or removal of cull material before scaling is not permitted. Currently there is a 25% cull factor applied to scale factors which assumes land-run form. Cull factors are not applicable to semi tree form.
- **Tree-length cedar must be utilized in all cases where at least one product exists within the stem. Where there are no merchantable products in a stem, the tree can remain at the site of harvest.**
- If producing semi-treelength; trees that contain no merchantable products can be left on the block.
- Minimum product length is 2.54 m, with the exception of fencing which can be utilized at 1.92 m.
- Ring shake and pencil rot shall be deducted in the same manner as rot, with the diameter measured to the outer limit of the shake or pencil rot.
- When producing products at the harvest block, butting and trimming (50 cm increments) of form and rot defects must be done in order to capture all merchantable products.
- Butt flare within the normal 30 cm stump height may be removed.

White Pine Crown Utilization Standards

Quality Factors	Saw Quality	Pulpwood & OSB
Diameter (min.)	18.0 cm DOB (17.1 cm DIB)	7.5 cm DOB (7.1 cm DIB)
Faces Clear (min.)		
Form Defects (max.)	1/3 Vol. ¹	
Rot (max.)		1/2 Vol.

¹The combined volume defect from rot and form (i.e. sweep, crooks, heavy knots and seams) must be assessed when considering the utilization of saw quality material.

Red Pine, Hemlock, and Tamarack Crown Utilization Standards

Quality Factors	Saw Quality	Pulpwood & OSB
Diameter (min.)	22.0 cm DOB (21.0 cm DIB)	7.5 cm DOB (7.1 cm DIB)
Faces Clear (min.)		
Form Defects (max.)	1/3 Vol. ¹	
Rot (max.)		1/2 Vol.

¹The combined volume defect from rot and form (i.e. sweep, crooks, heavy knots and seams) must be assessed when considering the utilization of saw quality material.

Hardwood Crown Utilization Standards

Quality Factors	Veneer	Sawmaterial	Poplar Saw Material	Pulpwood & OSB
Diameter (min.)	26.6 cm DOB (25.1 cm DIB)	24.5 cm DOB (23.1 cm DIB)	24.5 cm DOB (23.1 cm DIB)	7.6 cm DOB (7.1 cm) DIB
Length (m)		2.60 m ¹		2.44 m
Faces Clear (min.)	3	0	0	0
Sweep and Crook (max.)	0	1/3 volume	0	
Other Defects (max.)	0		0	
Rot (max.)	0		0	1/2 volume

* Any piece with a 24.5 cm DOB measurement at 2.60 meters which is of log quality will be considered a log regardless of total length. Ex. 3.20 m long piece with a 20.0 cm top that has a 24.5 cm DOB top at 2.60 m length will be measured as a 3.20m log with a 20.0 cm top. As such, the sawmaterial FMV rate will be applied to the entire piece.

Notes:

- Hardwood Crown utilization standards do specify length for saw material in order to avoid downgrading of sawmaterial to pulpwood. Hardwood production is to maximize veneer and sawmaterial while following the Crown utilization standards to minimize waste.
- Heart (maples only) cannot exceed 1/3 diameter in Veneer.
- Sound knots \leq 3 cm cut flush with the surface of the log are acceptable and do not constitute a face defect.
- Face defects include surface knots > 3 cm, seam deeper than 5 cm and other open or sealed defects that would significantly affect saw or veneer quality.
- Other defects include heavy limbs and knots, twisted grain, ring shake, burls, cat faces, worm track or mineral stain in the grain that would affect saw or veneer quality.