These CGNF interpretations are not standards but rather field guides for timber cruisers.

1. Count Plots

Question – *Do I use both loss factor and CGNF standards to determine in and out trees in a count plot?*

Answer – *No, use only the loss factor tree class standards for count plots to determine whether the tree is recorded in a count plot.*

All tree class 1, 2, 3, 5, 7, 8, 9 trees will be recorded.

The MoFR and Industry will monitor the impact of any variances.

2. Broken Tops

Question – *I have the top half of a large dead potential red cedar in my measure plot. I can not find the bottom part of the stem standing within the approximate plot radius for the estimated DBH. Should I record it?*

Answer – *Yes*

Reference - section 2.3.12 of the *CGNF Standards and Procedures.*

If a top can not be assigned to a tree then it is treated as a separate piece for "in/out" procedures and is graded uniquely.

If a top is found on the ground and can be assigned to a tree then attach it to that tree and assign a grade and net factor.

Note that a reasonable level of due diligence is required to find the tree or stump.

3. At Least An 8 metre U-Grade

Note that the following examples refer to dead standing and down trees only. If the 8 m dead tree or piece meets the filter criteria then it is recorded as per the *CGNF Standards and Procedures*. If the tree or piece has a missing top then record the projected total tree height and N9900.

a) Question - *I'm worried about tree count implications when I'm encountering borderline 8 m U grade dead logs. Do I interpret the "8m U grade filter" as a fixed length "8.0 m (eight point zero meter) "U grade log or higher" measured directly from the first broken or cut end or do I interpret it as: "if I can get an "8 m U grade quality log or better" anywhere along the stem after the first broken or shattered end.*

Answer - The intent of the 8m u grade filter is to assess a merchantable length after natural or man made causes (shatter, bucked out portion etc). Hence the filter applies to that 8.0 m length after the first break, shatter or cut.

b) Question - *I have a tree with shatter in the butt. Do I start assessing whether the tree is tallied after the shatter or include the shatter in the 8 m U grade interpretation?*

Answer - Do your best to determine where the shatter ends and assess the 8m U-grade filter after the shattered portion.

c) Question – *I have a dead and down tree, 120 cm DBH, X-grade at 8 m (beyond the 2 m Z-grade bucking allowance) due to butt and sap rot. It is sawlog quality to 15 m, do I record the tree?*

Answer – No, the tree is not recorded. This is not a measure tree because it does not have an 8 m U-grade log beyond the 2m Z-grade allowance. The U-grade filter is based on an 8m length.

d) Question – *I have a dead tree 150 cm DBH, wind sheared with 4m still standing and the down portion is shattered 2m up the bottom log. The down portion is lumber quality for 15 m. Do I record the tree?*

Answer – Yes, the tree is recorded. This is a measure tree because it contains at least an 8 m U grade after cleaning up 2 m of shatter on the butt.

4. One Log In A Tree

a) Question – *I have a 13.0 cm DBH, live hemlock in my plot. The tree height is only 8.0 m and it is U-grade quality. I can't get a 3.0 m log from it to the merchantable top diameter. Do I measure it?*

Answer – Yes, the tree is recorded but the tree will not contribute to the compilation net volume and grade profile if the taper equation yields a log less than 3.0 m. Trees that contain less than a single 3.0 m log will not be included in the cruise compilation net volume and value. These trees will still contribute to the average trees/plot calculation.

If the merchantiable length is obviously shorter than 3 metres, the other option is Z99 --.

The cruiser continues to record all trees that meet the minimum DBH requirements for the cutting authority.

5. Standard Log Lengths

a) Question: *I've been reading the CGNF standards and having difficulty in interpreting a section of the manual that refers to the issue of assigning standard log lengths. I have a couple of log combinations that I'm not sure about and need to understand the correct procedure.*

I have 16 m of gang quality timber. How would I assign the sorts, lengths and grades? Do I go:

i. gang for 13 m and then utility for the remainder, or
ii. two 8 m gang logs?

Answer – the intent is use the longest standard log length within the highest sort, so maximize the length. In this case 13 m of gang (J grade) and utility (U) 99 for the remainder.

The principles are:

i. maximize the sort,
ii. maximize the standard log length,
iii. assign the appropriate grade for that sort.

Go to log 2 and repeat.

b) Question: *I have 21 m of sawlog quality timber? How would I assign the grade?*

Answer – sawlog (H) 13 - - then probably sawlog (I) 8 - -. The intent is to use the longest standard log lengths within the highest sort, not the highest grade. In this case a correct possibility is:

H 13 - - 18 - - U 13 - -

c) Question: *I have 17 m of sawlog (H) quality timber? How would I assign the sort, lengths and grades?*

Answer – sawlog (H) 13 - - gang (J) 99 - -. In this case we've assigned the longest standard length within the sort…13 m. We do not have enough length of sawlog quality wood remaining that meets the minimum standard of 8 m therefore we recorded (J) - - for the remainder.

6. Helicopter Log Lengths

a) Question: *Given that different helicopters have different lift capacity and we are not always sure what machine will be used to actually log the timber, how do we apply the helicopter lengths?*

Answer – It is virtually impossible to develop a consistent grade/length/weight standard for every possible combination of machine and timber profile; therefore the following standards have been developed that will meet the general conditions.

Apply the following helicopter log lengths as per the weight restrictions referenced in section 1.1.3 of the *CGNF Standards & Procedures*:

Estimated Log Top DIB (centimetres)	Log Lengths (metres)				
	1st Log	2nd Log	3rd Log	4th Log	5th Log
<75.0	13, 11, 8	13, 11, 8	13, 11, 8	13, 11, 8	13, 11, 8
75.0 - 100.0 cm	8	13, 11, 8	13, 11, 8	13, 11, 8	13, 11, 8
100.0 - 149.9 cm	6	8	13, 11, 8	13, 11, 8	13, 11, 8
150.0 – 200.0 cm	4	6	8	13, 11, 8	13, 11, 8
> 200 cm	4	4	6	8	13, 11, 8

7. Spiral Grain

a) Question: *I have seen spiral grain in the hemlock at the scale yard in a timber type similar to the one that I have been cruising. Spiral grain is not evident in the bark and stem flutes, but when I chop off the bark there is evidence of spiral grain on the cambium layer. Is it acceptable to chop off the bark to evaluate spiral grain?*

Answer – The CGNF Standards and Procedures do not support the chopping of bark on standing trees to check spiral grain. Spiral grain can be assessed if there is evidence on the bark or the bark is missing from the tree.

8. Internal Knots

a) Question: *I have been cruising mature cedar trees and quite a few of the trees have slabs of wood broken off on the butt log due to wind damage. Knots are sticking out from the heartwood on the standing portion. Should I include these knots in my grade assessment?*

Answer – Knots that are visible inside cracks/splits and on cat-faces are not used to assess the sort and grade. Knots must be visible on the bark or in the case where the bark is missing, on the cambium.

9. Helicopter Log Lengths

a) Question: *I am cruising a helicopter logging block and there are large sawlog quality trees with some high grade lumber quality on the lower 5 or 6 metres. Should I maximize the sort length at 13 m or can I record a short lumber grade log?*

Answer – The helicopter log lengths in Section 1.1.3 of the CGNF Manual are graded as per the lengths in the table. For example; a 250 cm Dbh Red Cedar grades H for 13 m, but if the first 4 m log (see the table) is D-grade then grade the 4 m log as a D and not an H.

10. Dbh Removed

a) Question: *I am cruising a block of timber that has a lot of dead and down cedar. A shake block salvage operation in the cutblock has recovered shake blocks from the butt logs of the down trees. Where do I measure the Dbh when the segment of the tree with the Dbh has been removed?*

Answer – If the Dbh section is missing (bucked out) from a down tree then measure 1.3 m up from the cut end of the remaining portion to assess if the tree is in or out of the plot. See Figure 7.

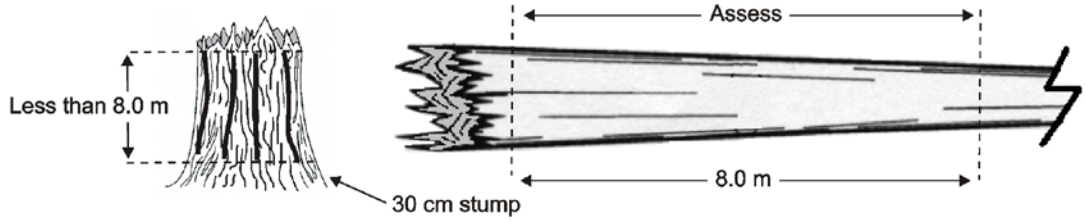
11. Stem Flutes

a) Question: *I am cruising a stand and some of the trees have bark covered recesses in the lower stem. Should I be net factoring these recesses to account for missing wood?*

Answer – Stem flutes are hollows in the bottom portion of many trees and are part of the natural tree form. Flutes are common on Red Cedar trees. The CGNF process does not allow net factor deductions for fluting since fluting is dealt with in the NVAF process.

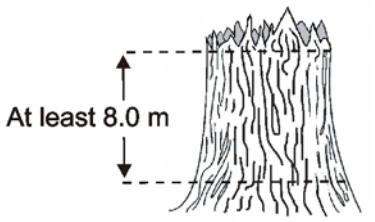
FIGURES FOR MINIMUM 8m U-GRADE LOG

Figure 1 – Windshear with standing segment < 8m.



Record Example: Z06 - - /H11 - - /J11 - - /U99 - -
Total Tree Height = 40.0 m

Figure 2 – Windshear with standing segment > or = 8m.



Assess the standing portion from stump height or major fork crook to 8.0 m height.

Record Example: H09 - - /Z01 - - /I13 - - /J08 - - /U99 - -
Total Tree Height = 40.0 m

Figure 3 – Windfall with roots attached.

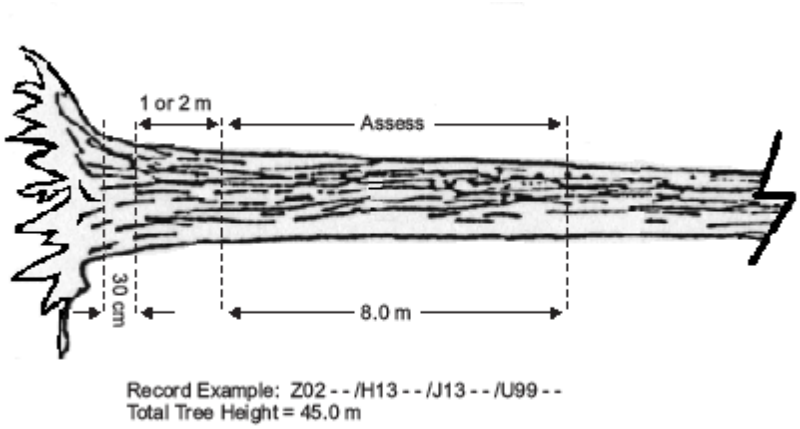


Figure 4 – Windfall with roots attached, break and missing top.

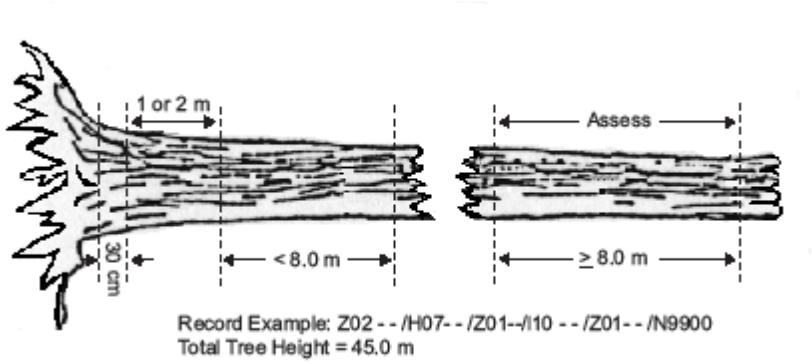


Figure 5 – Windfall with 8m U-grade and conk.

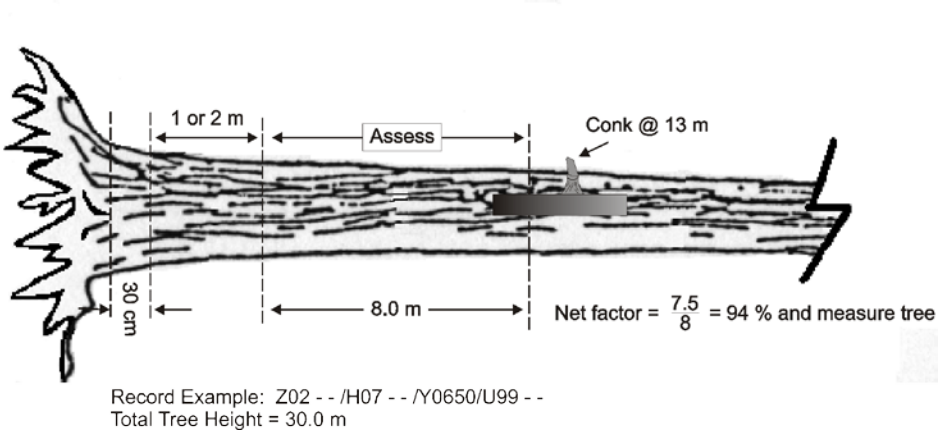


Figure 6 – Windfall with roots attached, break and missing top, not an 8m U-grade.

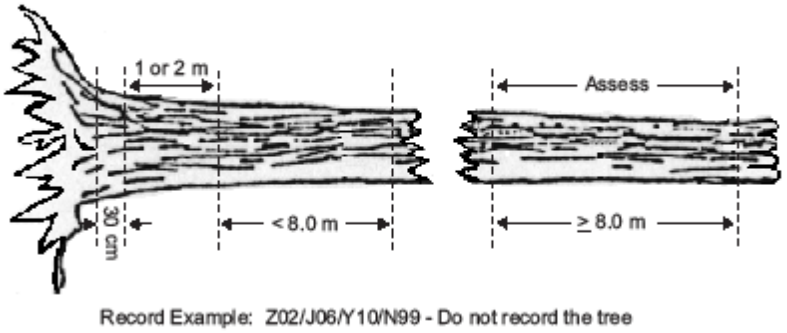


Figure 7 – Plan-view of down tree with Dbh cut out.