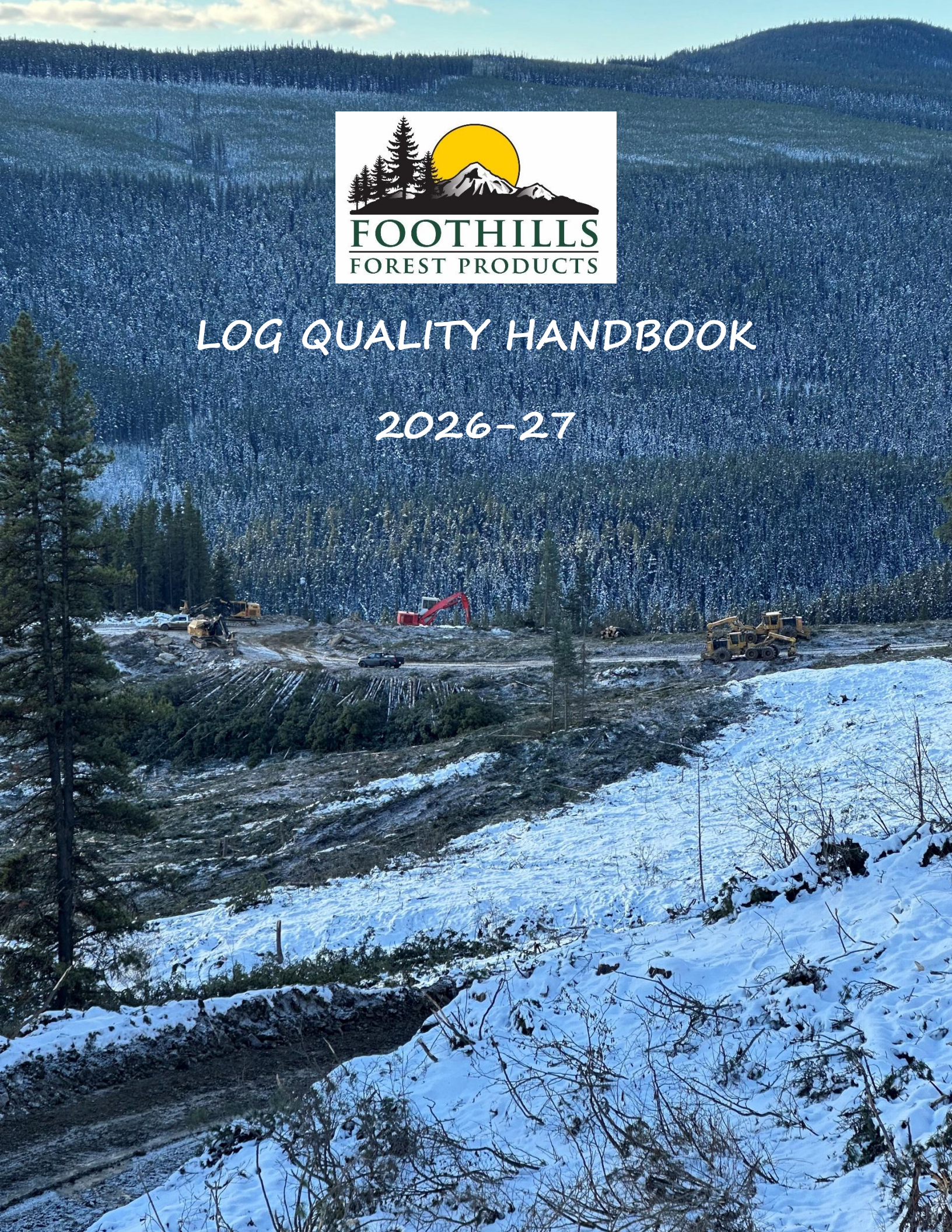




LOG QUALITY HANDBOOK

2026-27





Prior to any processing activities, contact your Foothills Forest Products representative to arrange an onsite quality review

OBJECTIVES

- To ensure logs delivered to our sawmill are manufactured and sorted to our sawlog specifications
- To minimize re-manufacturing of sawlogs
- To ensure that the log quality program does not create handling problems.

GOAL

- Our goal is to deliver 100% log quality, with a tolerance of 7%

SORTS/LOG SPECS

Acceptable Lengths:

- 16'5"
- 14'5"
- 12'5"
- 10'5"
- 8'5" only to minimize defect

Oversized Sort:

- Butt Diameter 21" to 24" (Weyco)
 - 14'5"
- Butt Diameter >24" (Weyco)
 - 16'5"
- 12'5" & 10'5" only to minimize defect

Sawlogs:

- 4" minimum top size (aim for 4.5)
- 21" maximum butt size (aim for 20.5)
- Separate Balsam Fir from Spruce and Pine
- Spruce and Pine can be mixed

Pulp:

- 3" top size
- 4.5" butt size
- Spruce, Pine and Balsam can be mixed
- No Large Sawlogs or Sawlogs with Defect >66% defect

CONTRACTOR RESPONSIBILITIES

Important components of a successful log quality program are choosing the appropriate equipment, maintaining it regularly and performing frequent self-assessments of its proper function. Contractors and their employees are expected to perform checks on a regular basis.

- Check lengths and paint on butt end of logs
- Size and species sort
- Sharpness of saws
- Making sure all quality meets Foothills standards
- Ensure that Loader operators fill out load slips to completion before the load leaves the cut-block
- Follow all safety procedures and protocols in the cut-block, as well as in the FFP yard



LOG QUALITY CHECK PROCEDURE

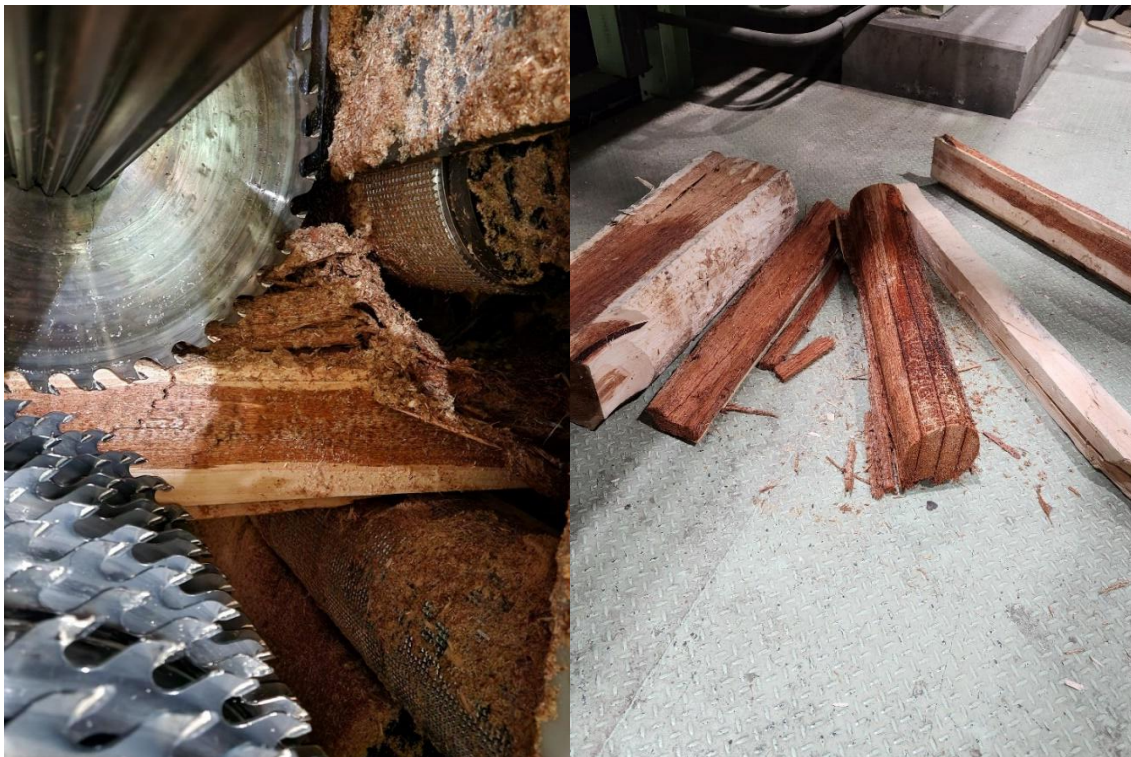
- Loads will be sampled on a regular basis
- In the yard the sample load will be spread, and each log will be assessed for quality using a point rating system
- Log infractions will be assigned specific penalty points, based on their relative impact on the mill
- Load quality will be rated by using a defect quality check, a diameter quality check, and a length quality check
- Log diameters are measured inside the bark
- Rot is measured and assessed by diameter. Logs must have usable portions of sound wood



PRODUCTION KILLERS

The following will be considered production killers:

- CTL under 8'4" or over 16'7"
- Sweep, pistol grips and crook that exceeds the acceptable tolerance
- Foreign debris in load (nails, wire, spiles, rocks)
- Saw cuts
- Top sizes under 3"
- Mixed diameter sorts
- Incorrect species mixed in load
- Incorrect products mixed (oversize & sawlogs)
- Unsafe loads of logs coming into Foothills yard



SORTING, LOADING & HAULING

GENERAL RULES

- You **MUST** have prior authorization for any mixed clean-up loads and all such loads **MUST** be clearly marked on your load slip. Contact **MUST** be made with the associated yard manager, **BEFORE** delivery
- Your loads **MUST** be loaded to a safe height
- Complete the loads slips **BEFORE** you leave the cut-block
- Do not load; bucked-off tops, loose limbs, cull logs, rocks or burnt wood

SPECIES AND SIZE SORTS

- Sort all Balsam and haul separately
- Spruce and Pine can be mixed
- All bunks **MUST** be 100% species clean and 100% size sorted, mixed bunks are only acceptable if they are easily distinguished and clearly communicated via **LOAD SLIP AND BY THE TRUCK DRIVER** (e.g. 4 oversized logs top of bunk 2)
- Changes to any of the above can only be made if discussed, **PRIOR** to being loaded on a truck, with a Foothills Supervisor

SORTING, LOADING & HAULING

LOADING CONSIDERATIONS

- No short logs may be loaded with long logs without prior authorization from a Foothills supervisor
- Short logs that have been authorized **MUST** be centered in the load to ensure complete grip by the Sennebogen during unloading

OFF-HIGHWAY LOADS

- Loads **MUST** be loaded like highway loads (i.e. no taper)
- Loads **MUST** be crowned to a safe height
- Loads must be properly tied down and checked at all wrapper check station(s)

OTHER CONSIDERATIONS

- If you **MUST** turn your butts back for weight consideration, then tops **MUST** be flush with the front of the load (square loads)
- Loading defect bucked pieces in load, **MUST** be cradled with no more than 3 pieces in the load
- Make sure loads are square, front to back (butts line up). This avoids issues with unloading and rail car reloading

LOG LENGTHS

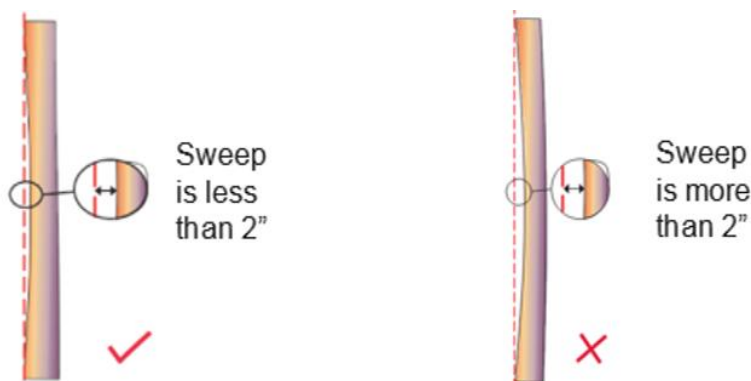
GENERAL RULES

- A variance of 2" up or 2" down from the target length is acceptable
- For logs with defects, buck out the defects to the next preferred length
- Lengths MUST be measured from the top of the undercut to the shortest part of the log
- Mechanical or power saw bucking MUST be square (perpendicular to the log)
- Avoid angle cuts. Flush cuts are required
- Each contractor is responsible for monitoring processor lengths. Lengths are to be measured daily and painted on the butts of the logs to verify processor accuracy
- The contractor must monitor temperature drops, adjust the roller pressures accordingly and within specifications tolerance

SWEEP / CROOK

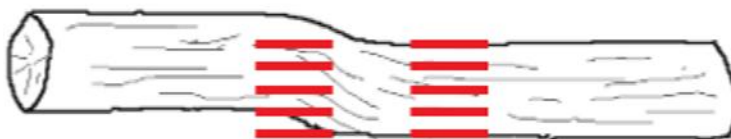
SWEEP

- Maximum allowable sweep is 2" deflection
- There is ZERO tolerance for logs with reverse (double) sweep. These logs belong in the slash pile (if $>2/3$ defect) or the pulp (if $\leq 2/3$ defect).

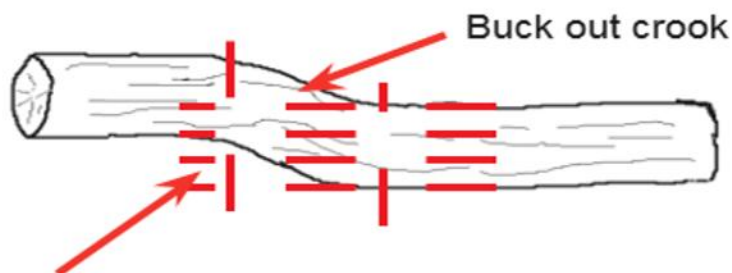


CROOK

- Crook that is less than $\frac{1}{4}$ the log diameter is acceptable



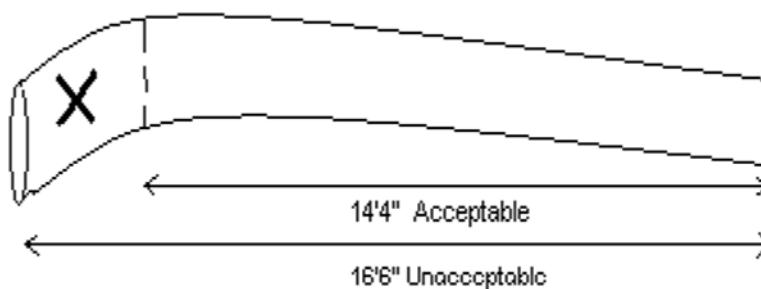
- Crook is not acceptable if greater than $\frac{1}{4}$ the log diameter



PISTOL / FLARE

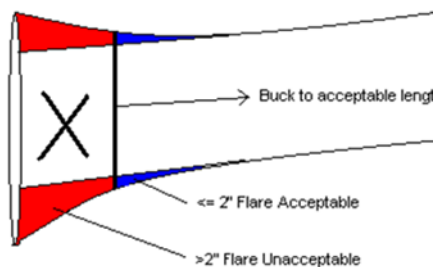
PISTOL

- Buck out offsets to acceptable lengths, no snaky logs
- Cut to shorter acceptable length to minimize severity



FLARE

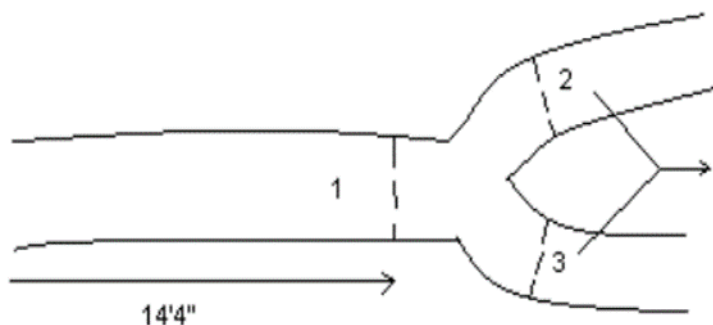
- Maximum flare allowance of 2 inches within 1 foot of butt
- Flare **MUST** be bucked off if it is more than 2" deflection on a 1' line.



FORKS / CAT FACE

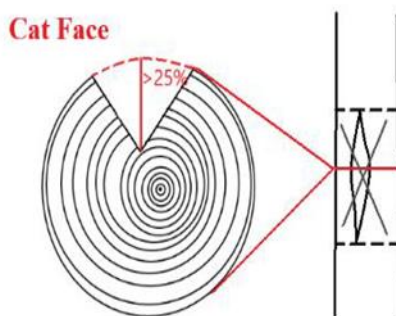
FORKS

- Take a random length between 8'5" and 16'5" to within 1' of the fork
- Use the catface rule of 25% for the butt of the next log



CATFACE

- Buck out catface when depth is greater than 25% of log diameter or when there are multiple catface on opposing sides.
- 'Canoe' logs go in the pulp
- Use the rot rule of 50% diameter when the catface is at the butt



DRY LOGS / TWIST

DRY LOGS

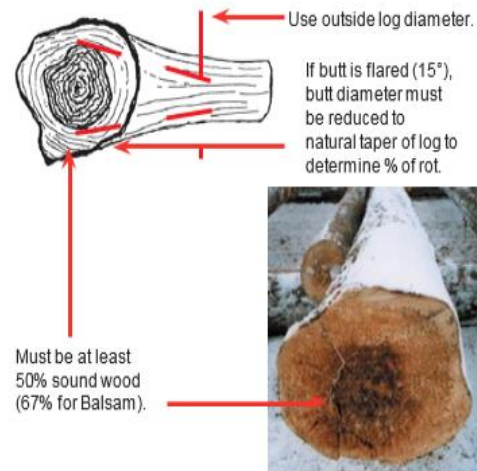
- Dry saw logs are accepted only if they do not contain multiple defects such as rot, crook, fork, etc.
- No dry balsam is permitted
- The checks are as follows:
 - No spiral checks
 - A single straight check in logs greater than 6" diameter is accepted
 - Multi-checking is NOT acceptable



ROT / STAIN

SPRUCE/PINE

- Logs must contain 50% or greater sound wood on butt and 100% sound wood on the top
- Small logs must have usable portions of fiber surrounding the butt rot. This picture shows excessive butt rot on a small log due to no usable sections



BALSAM

- Logs must contain 67% or greater sound wood on butt
- Treat stain as rot

STAIN

- Acceptable, stains are not considered rot if they are hard and growth rings are visible.
- Ensure to differentiate between stain and white speck.
- For Balsam stain is to be treated as rot.

LIMBS / MECHANICAL DAMAGE

LIMBS

- Attached limbs and branch stubs longer than 2" must be bucked flush with the log
- Buck limbs and branches to prevent fiber tears.



MECHANICAL DAMAGE

- Dunkley encourages the use of processors without spike rolls to ensure a top-quality log. This helps to avoid spike roll damage and the loss in lumber and grade outturn.
- All Dunkley Contractors are responsible for drops in temperature and adjust roll pressure accordingly

