

ITASCA COUNTY FOREST MANAGEMENT GUIDELINES & SPECIFICATIONS

The following are guidelines and specifications of the timber permit. Specifications written on the Timber Report supersede those written here where in conflict.

I. GENERAL PROVISIONS

A. **Permit Area and Volume:** Itasca County sells its timber on a permit area basis. The timber to be purchased is the volume actually present within the permit area shown on the Timber Report. The volumes listed on the Timber Report are only estimates.

B. Payment of Timber and Bonds:

1. CONVENTIONAL TIMBER PERMITS: The performance bonds and down payment shall be paid when a sale is purchased and the remaining bid-up value of the appraised volume of timber paid **before** harvest begins.
2. SECURED TIMBER PERMITS: The 15% down payment must be submitted and the remaining unpaid bid up value of the stumpage secured under the terms of Itasca County's "Security Policy for Timber Sale Contract" within five business days prior to beginning sale operations.

On permits or species subject to scale, a pay adjustment will be made to reflect the volume of timber scaled from the permit area.

C. Delinquent Bills and Overruns:

1. New permits may not be purchased until:
 - a. Delinquent bills such as overruns, extension fees, and/or other Land Department bills are paid.
 - b. Similar bills with another county, the State, and/or the Federal government are paid.
2. Permits and/or cutting blocks may not be opened on existing timber permits until all Land Department overruns (including non-delinquent overruns) are paid.

D. Permit Expiration:

1. REGULAR AUCTION PERMITS: Unless otherwise stated, Itasca County's regular auction permits shall expire three logging seasons after the date of purchase. The County may issue an extension of timber permit for up to one year at a cost of 10% of the value of the remaining uncut wood. Possible extensions are noted in the Timber Report.

2. INTERMEDIATE AUCTION PERMITS: Unless otherwise stated, Itasca County's intermediate auction permits expire two logging seasons after the date of purchase with no possible extensions.
 3. INFORMAL SALE PERMITS: Unless otherwise stated, Itasca County informal sale permits expire one logging season after the date of purchase. The County may issue one extension of the permit for up to one year at a cost of 10% of the value of the remaining uncut wood.
- E. **Scaling:** The permit holder shall pay for all merchantable products on the permit area at the rate stated on the Timber Report. All products are sold subject to scale unless otherwise stated on the Timber Report. Such products shall not be removed from the permit area until they have been scaled by the County, or a County Consumer Scale Agreement has been completed for the wood to be removed. All board foot scales under this permit must be done using the Scribner Decimal C Log Rule.
1. CONSUMER SCALE:
 - a. Wood hauled under consumer scale agreement is subject to the conditions stated on that agreement and on the consumer scale ticket book.
 - b. All issued consumer scale tickets must be accounted for after timber removal is completed. (See Section II. D.3)
 - c. The cord-weight conversions listed in Section IX shall be used. Weights for wood stored longer than 28 days during May through October will be adjusted to compensate for the weight of the moisture loss. This adjustment will be computed in the same manner as stated in the Minnesota DNR scaling manual.
 2. STICK SCALES:
 - a. **Piling for Scale:** Products subject to stick scale must be piled to facilitate efficient and accurate scaling, and labeled with the permit number.
 - b. **Scaling Fee:** Each timber permit or cutting block will be allowed one free stick scale. For each additional stick scale, the Permit holder will be billed a scaling charge of \$25/hour. The \$25/hour will include one-way travel time for additional miles driven. There will be no charge for scales done during regular permit area visits.

- c. **Notification:** The timber sale administrator must be notified at least three working days in advance of when a stick scale is required to allow scheduling of that task.
 - 3. SEASONED WOOD: Seasoned wood weights will apply when harvested timber is stored longer than four weeks during the months of May through September before delivery to a mill where it would be consumer weight scaled.
 - 4. SOLD AREA ESTIMATE PERMITS: Species identified as being "Sold Area Estimate" on the Timber Report are not subject to scale or payment adjustment.
- F. **Alternate Landings:** The County may allow for temporary stockpiling of wood for scaling outside of the permit area upon mutual agreement between the Permit holder and the County, subject to the conditions stated on the "Alternate Landing Addendum to Sale Contract". Such agreement must be in writing and signed by both parties. Non-certified wood cannot be stored at the same location.
- G. **Cutting Blocks:** The timber sale administrator must approve the opening or closing of all cutting blocks and may limit the number of cutting blocks that may be open at a given time.
- H. **Special Considerations:**
- 1. BARK BEETLES - During drought or other times of high bark beetle risk, the logging season may be restricted on sales with substantial pine volume. Other restrictions may also be implemented as needed to minimize bark beetle damage or risk to nearby standing timber, such as slash disposal by burning, burying or immediate hauling of pine.
 - 2. OTHER INSECT AND DISEASE problems may require prescribed restrictions as needed.
 - 2. MINERAL LEASES - Where timber sales are set up on lands leased out for mineral exploration, the rights of the mineral lessee shall supersede those of the timber permit holder.
- I. **Intermediate Auction and Informal Sale Policy Compliance:** Permit holders of all intermediate timber auction permits and "informal" timber permits must meet the requirements of Itasca County's respective policies for those permits. Permit holders of such permits must answer all questions needed to determine such compliance.
- J. **Blowdown Timber:** When 30% or more of the permit volume has blown down within the permit area or cutting block after the timber is sold but before any extensions are in place, the County may re-negotiate the stumpage prices on the

permit to compensate for the added cost of logging the blowdown. The permit holder on any Itasca County timber permit that is determined to have 30% or more of the timber blown down is required to harvest the blown down timber within one year of the date the timber was blown down. The permit holder will not be charged for unsalvageable timber volume within the permit area. When 30% or more of the timber volume within the permit area or cutting block has blown down after the timber is sold and the permit has been extended, the stumpage prices will remain unchanged. Again, the permit holder would not be charged for the unsalvageable timber.

II. CUTTING SPECIFICATIONS.

A. **Before Harvest Activities Begin:**

1. **PRE-HARVEST MEETING:** The permit holder must meet with the timber sale administrator to review the permit terms and discuss when permit activities will begin, where roads and landings will be located, how the wood will be scaled, and any anticipated problems or concerns.
2. **ACCESS TO PERMIT AREA:** It is the permit holder's responsibility to obtain approval from all affected landowners and/or management agencies before gaining access to the permit area. All access fees and road charges shall be paid by the permit holder
3. **NOTIFICATION OF START-UP:** The timber sale administrator shall be notified at least three (3) working days before harvest activities will begin, and each time activities are resumed after being discontinued for more than two weeks, to allow proper contract monitoring and the associated scheduling.

B. **Access Roads and Landings:**

1. **LANDING AND ROAD CONSTRUCTION AND MAINTENANCE:** The following conditions shall apply to all landing and road construction and maintenance, and other soil disturbance activities:
 - a. Location of all access roads, landings, dirt ramps for loading equipment, and other soil disturbance shall be approved by the timber sale administrator before construction begins. Landings may not be placed in open water wetlands. Landings in other types of wetlands must have all upland slash and debris removed prior to completion of the sale or before equipment is removed from the sale.

- b. Road construction and associated activities must be confined to a 24-ft. right-of-way, unless otherwise approved by the timber sale administrator. No travel may be done outside of the right-of-way.
 - c. Permit holder shall purchase and remove all timber damaged or felled. This timber must be removed or yarded at locations approved by the timber sale administrator before cutting of the permit area begins.
 - d. Only organic material may be removed from the road. Mineral soil must be left in place. Organic material or logging slash shall not be incorporated or mixed into the road bed.
 - e. Organic soil and duff removed from the road, as well as stumps and tops, must be feathered into adjacent areas in a manner approved by the timber sale administrator, and not left in berms or windrows along the road.
 - f. Construction or use of any borrow pits or other soil fill on County land must be approved by the timber sale administrator.
 - g. Removal of sod from existing roads and trails must be approved by the timber sale administrator.
 - h. All roads (new and existing) and landings must be left clear of debris and in good repair after the permit is completed. Such repair includes correcting potential erosion problems as determined by the timber sale administrator. Such repair must be completed in a timely manner as directed by the timber sale administrator and before the permit is closed. Landing slash must be left in piles, but may not be piled against standing timber.
 - i. A 10-foot wide slash-free zone must be maintained along all existing forest trails shown on the permit map within the permit area.
2. **USE OF AND LOGGING ALONG ESTABLISHED ROADS AND TRAILS:** Additional specifications regarding logging along black-topped roads, county roads, township roads, DNR Forest Trails, major USFS roads, "system roads", and snowmobile trails are listed in Section III..
 3. **USE OF GATED ROADS:** When using a gated road for logging activities, the permit holder must provide a lock sufficient to interlock with the County lock on the gate. The gate must remain closed and locked per instructions in the Timber Report. In no case shall equipment be driven around the gate or the gate damaged to gain access. Vehicle access on gated or posted roads is permitted only for logging purposes. Hunting,

berry-picking, and any other activities are prohibited unless access has been gained in the same manner required of the public.

4. LANDING ON POWERLINE, PIPELINE, and SIMILAR RIGHT OF WAYS: Use of powerline, pipeline, and similar rights of way as landings is prohibited. Also, no logging slash or debris may be left on these rights of ways.

C. During Cutting

1. CLEARCUTTING: When clearcutting is required on the Timber Report, all trees greater than 2 inches dbh shall be felled, unless stated otherwise. About five standing dead trees and/or large live trees should be left standing for wildlife when possible unless they are a logging hazard.
2. RESERVE TREES AND OPTIONAL SPECIES: Reserve trees shall not be cut or damaged. Optional species shall not be damaged unless they have been purchased or felling is required. Individual tree injury is considered major when a reserve tree is noticeably tipped; the bole is broken off; or has substantial bark, crown (>33%) or root area damage (>25%). Cumulative logging damage may not exceed 2-5% per acre as prescribed by the TSA.
3. PROGRESSION OF CUTTING: Cutting shall progress in an orderly fashion so as to minimize damage to new sprouting or other regeneration within the permit area. Logging the permit area by starting at the back and working toward the landing may be required to protect new sprouting and to minimize compaction and other possible site damage by restricting skidding to a few trails. During May through August, clearcutting of logged areas must be completed within two weeks of when logging is begun. Areas logged during September through April must be clearcut before the following May 15.
4. FELLING OF TREES: Trees must be felled to land within the permit area to minimize damage to adjacent timber, other ownerships, wetlands and riparian mgt. zones.
5. STUMP HEIGHT: Stump height of all felled timber shall not exceed 3/4 of the diameter of the tree.
6. MARKED BOUNDARY TREES: All painted or flagged boundary trees shall not be cut. See Part VI penalties.
7. SURVEY MARKERS: Survey markers will be marked in the field with flagging and paint, and labeled on the site map prior to sale of permit. Damage to any of these markers is prohibited.

8. LEANING TREES: No tipped or leaning trees shall be left.
9. SLASH DISPOSAL: All tree tops, felled timber, and other logging slash and debris shall be kept within the permit boundaries and not within reserve types or lowland areas. A 10-foot wide slash-free zone shall be maintained within the permit area along all cutting lines adjacent to private land. No slash shall be left in open water wetlands. Slash from upland timber may not be left in wetlands (including ephemeral ponds and drainages).
10. FULL TREE LOGGING: When the permit area is full-tree logged, all tops and limbs must be piled at the landings or other areas designated by the District Forester, so as to minimize the loss of forest regeneration and/or to facilitate their burning. Piles must not be placed closer than 50 feet to adjacent timber coverts to prevent damage to adjacent timber if the piles are burned.
11. WOOD UTILIZATION: All merchantable trees shall be utilized. (See VI. D. Penalties)
12. SOIL DISTURBANCE: Rutting is not permitted on the permit area. Soil disturbance, including compaction, shall be minimized. The equipment operator shall halt harvest activities if site damage occurs. Sale activities shall not resume until ground conditions are sufficient to minimize site damage. See Part VI penalties E & F.
13. EROSION CONTROL: Potential erosion problems created by logging (e.g. cuts made for skidding trails or worn skid trails up steep hills) must be corrected in a timely manner to minimize erosion and/or a lowering of water quality.
14. CUTTING AND DISTURBANCE OUTSIDE OF PERMIT AREA: No equipment travel or site disturbance is permitted outside of the permit area except on approved access trails. No cutting shall be done outside of the permit area.
15. DRAINAGE OBSTRUCTION: When installed fills restrict the drainage of adjacent areas, the drainage must be re-opened before flooding damage occurs. No slash shall be left in ephemeral or permanent streams.
16. EQUIPMENT MAINTENANCE AND DUMPING OF OIL: Fueling, greasing, and vehicle maintenance may be done only on landings approved for such, based upon protection of water quality. The dumping of oil on county lands is prohibited by state law. Fuel and/or oil spills must be cleaned up and managed by approved methods; those over 5 gallons must be reported.

17. TRASH REMOVAL: No trash, empty containers, cans, bottles, paper, or other refuse shall be left or allowed to accumulate during the term of the permit.
18. REMOVAL OF TOPS: Fuelwood permits are required for removal of tops or other non-merchantable wood from the permit area as fuelwood. Tops may be chipped and removed under consumer scale along with other merchantable wood.
19. WATER QUALITY: All logging and related activities must be conducted in a manner that protects water quality and as required by the timber sale administrator.
20. MIXING OF SPECIES: Species and species products sold subject to scale must be kept separate until scaled unless otherwise approved by the timber sale administrator. Mixed piles may be scaled at the highest value species.

D. After Cutting

1. NOTIFICATION BEFORE EQUIPMENT REMOVAL: The timber sale administrator shall be notified at least three (3) working days before logging equipment is removed from the permit area to provide adequate time for permit area inspection and addressing of permit compliance requirements before equipment is removed.
2. WOOD REMOVAL: All merchantable wood must be removed from the permit area within thirty (30) days after wood has been cut unless a written extension is granted by the timber sale administrator. Wood placed on alternate landings must be removed from the alternate landing by the date indicated on the Alternate Landing Addendum to Timber Cutting Permit. Wood left on landings beyond the approved time shall become the property of Itasca County.
3. CONSUMER SCALE TICKET BOOK RETURN: Consumer scale ticket books must be returned to the County within thirty (30) days after hauling of wood from the permit area or alternate landing is completed. Thereafter the permit holder will be charged \$10 for each unreturned ticket book.
4. CLOSING OF PERMIT WITHIN 30 DAYS: Road repair, felling of residual timber, and other permit requirements must be completed within 30 days after cutting of merchantable timber is completed to allow closing of the permit at that time. If not completed within 30 days, the County may hire to complete contract requirements and bill the permit holder for all associated costs.

III. ADDITIONAL ROAD AND ROAD CORRIDOR REQUIREMENTS

A. **Black-topped Roads, County Roads, Township Roads, DNR Forest Trails, and Major U.S.F.S. Trails:**

1. All log landings and associated slash and debris shall not be placed closer than 100 feet from the road right of way. Access from such roads shall not exceed one approach per forty-acre tract.
2. No cut products shall be piled or stored upon the established right of way.
3. No slash or logging debris will be left upon the right of way, and a 25 foot wide slash free zone shall be maintained along the right of way.
4. No logging equipment, buildings, or facilities shall be parked, stationed, or erected upon the trail right of way. No logging equipment may travel on the road except hauling trucks en route to and from the permit area. There shall be absolutely no skidding down or across these trails.
5. Where visibility is limited, safety signs (e.g. CAUTION--TRUCKS HAULING) shall be posted 200 feet on either side of where trucks enter the road and further down the trail as needed. Posting is the responsibility of the permit holder.
6. Any ruts, holes, or other damage to trails caused by timber permit activities shall be minimized and repaired in a timely manner by the permit holder at his expense, as directed by the timber sale administrator, before the permit is closed.

B. **"System Roads" and Similar Trails:**

1. Items III A. 2, 4, and 6 shall apply. Item III A. 1. shall also apply when stated on the Timber Report.
2. A 10 foot wide slash free zone shall be maintained along the 33 foot right of way.

C. **Snowmobile Trails Used to Access Timber During the Snowmobiling Season:**

1. At time of snow removal, at least two inches of compacted snow must remain on the trail as a running surface.
2. The trail must be made wide enough to accommodate easy and safe simultaneous travel of snowmobiles and loaded log-hauling trucks. The entire trail width must be maintained such that snowmobile travel is not impeded or endangered. The snowmobile trail must remain free of slash and other debris at all times.

3. The Land Department will establish a 10 m.p.h. speed limit on the affected portion of the trail. The speed limit will apply to all vehicles, including snowmobiles, and will be posted by the Land Department.
4. The snowmobile trail right of way of 33 feet shall not be occupied by logging equipment except during trail maintenance and travel to and from the site. There shall be no skidding down or across snowmobile trails without the approval of the TSA. When crossing a trail, the permit holder shall erect stop signs on the trail (supplied by TSA). These signs shall be removed at the end of each day or when activity across the trail halts.
5. In the event it is impossible or impractical to conduct permit activities under the above conditions, the timber sale administrator and the club's trail administrator will establish a temporary trail alignment for the duration of the permit. The Permit holder will not be responsible for constructing this alignment unless so stated on the Timber Report.

IV. REFERENCE MATERIAL

A. Standard reference material for prescription writing includes but is not limited to:

- Biophysical Forestland System (BFS) data and information.
- Biophysical Region Handbooks
- BLEU descriptions
- BFS special reports
- NCFES Silviculture handbooks
- Principles of Silviculture, 2nd Edition
- Forestry Handbook, 2nd Addition

V. OTHER REFERENCES:

A. For additional reference refer to tribal, state and federal voluntary guideline manuals:

- Ojibwe Treaty Rights: Understanding and Impact
- Leech Lake Reservation Foundational Documents and Overview
- Wisconsin Forest Management Guidelines
- National Management Measures to Control Non-Point Source Pollution from Forestry.
- Sustaining Minnesota Forest Resources: Voluntary Site-Level Forest Management Guidelines for Landowners, Loggers and Resource Managers.

VI. PENALTIES

A. Wood Left on Landings: Wood remaining on the permit area or landing after the permit is closed shall become the property of Itasca County.

- B. **Timber Damage or Trespass:** Unauthorized damage or removal of timber on or off of the permit area shall be subject to penalty under the State Timber Trespass Law (M.S. 90.301).
- C. **Survey Marker Replacement:** Flagged or painted land survey monuments or reference objects that are damaged or destroyed during contract operations, must be properly replaced by a Registered Land Surveyor hired by the permit holder. The permit holder shall be solely responsible for the cost of this replacement.
- D. **Unutilized Merchantable Timber:** The permit holder shall pay for all unutilized merchantable timber, down or standing, that is left on the permit area. A scaling fee will be charged if substantial time is required to estimate the volume.
- E. **Fines:** All other contract violations, including consumer scale procedural violations, may be subject to a minimum fine of \$50 per occurrence and/or the cost of reparation or value lost.
- F. **Halting of Permit Activities:** The timber sale administrator may halt any or all permit activities immediately for continued non-compliance with any of the regulations stated in this contract for as long as is necessary to resolve the infraction.
- G. **Failure to Complete Permit Requirements/Poor Contract Performance:** The County may terminate this contract for failure to satisfactorily complete the permit requirements on time or for continued poor performance. Such termination shall result in forfeiture of the performance bond and stumpage balance. Failure to satisfactorily complete the permit requirements may prevent the Permit holder from being awarded future County permits, restrict the number of timber permits that the permit holder may hold at any time, and/or may result in cancellation of other County timber permits. If the Permit holder feels that he or she is being penalized unfairly under this clause, the Permit holder may appeal under Section VI Violations Appeal Process.
- H. **Termination of Permit:** The County may terminate this permit due to unsatisfactory performance by the Permit holder on other Itasca County timber permits. In such cases, the performance bond and down payment would be refunded to the Permit holder.
- I. **Eligibility for Informal and Intermediate Permits:** Violation of the eligibility requirements for informal and intermediate timber auction permits shall result in loss of the permit and may result in loss of all money deposited on the permit to help offset enforcement costs and as punitive damages. Continued violation of the eligibility requirements may result in that person being ineligible to purchase such permits.

VII. VIOLATION APPEALS PROCESS

- A. Permit holder and timber sale administrator (TSA) try to work out differences. In the case of a scaling dispute, the county will provide a check scale upon request.
- B. Permit holder wanting to appeal a timber permit administrative decision of the TSA to the Land Commissioner has to complete a violation appeal form.
- C. TSA is responsible to provide the Land Commissioner a written report describing the circumstances involving the decision and appeal.
- D. Land Commissioner hears from the permit holder and the TSA and makes a decision if it is clear what needs to be done.
- E. If necessary, Land Commissioner meets with permit holder, TSA and any person(s) that can contribute to resolving the issue, on-site or in the office to make a decision.
- F. Land Commissioner's decision is communicated to the permit holder and TSA in writing.
- G. Permit Holder or TSA may appeal Land Commissioner's decision to the County Board.
- H. Land Commissioner is responsible to provide documentation for Board consideration. Permit holder and TSA have opportunity to address the commissioners at a Transportation Land Management (TLM) committee meeting.
- I. County Board makes a final decision.
- J. Final decision of County Board is communicated to the permit holder and TSA in writing by the Land Commissioner.

VIII. DEFINITION OF TERMS

Bolts: Logs 100 inches long, greater than or equal to eight inches dib (6 inches dib for upland conifers), but less than or equal to 12 inches dib. on the small end, and of sufficient quality to saw lumber.

Closed Permit: A terminated timber permit.

Consumer Scale Procedural Violation: A violation of the consumer scale agreement requirements which, at the time of discovery, clearly cannot be construed as casual or intentional timber trespass, or removal of timber without scale.

Cutting Block: A geographically separate portion of a larger timber permit with its own volume estimate that may be opened individually as a permit subunit rather than opening the entire permit at once.

Delinquent Account or Bill: An overdue account beyond the interest-free period.

Established Right of Way: The entire road right of way width as described in the easement or assumed easement.

Fuelwood: Pulp and larger sized wood suitable for burning. Usually hardwood pulp except aspen, balm, and basswood.

Informal Sale Permits: Permits sold "over the counter" without benefit of auction. State law requires that such permits not exceed \$3,000 in appraised value.

Lump Sum Species: A species sold based on the appraised volume. No scale of cut products is required. Also called "Sold Area Estimate" species.

Merchantable Trees: Hardwood and upland conifer tree species 5 inches or greater in dbh and containing three or more 100 inch bolts or pulpsticks to a 4 inch dib. top. Swamp conifer species with two or more bolts and/or pulpsticks to a 3 inch dib. top. Plantation thinnings may require utilizing two pulp stick trees to a 3 inch dib top. Merchantable trees must also have a reasonable market and be of sufficient quality, as determined by the Timber Sale Administrator.

Opened Permit: A timber permit on which logging may begin. Opening a permit requires acceptance by the Land Department of payment or security for the timber value as stated in I.B. and approval by the Timber Sale Administrator.

Optional Timber/Species: Timber or a species listed on a Timber Report that may be purchased at the Permit holder's discretion.

Performance Bond: A sum of money or approved insurance contract that is held by the County until satisfactory completion of a timber permit to help achieve contract compliance and reduce the risk of financial losses in the event of unsatisfactory contract performance.

Pulpwood: Those logs 100 inches in length suitable for making pulp, but not of suitable quality or size for sawing lumber.

Permit holder: The individual or company that is awarded an Itasca County timber permit.

Reserve Trees/Species: Those trees or species which shall not be cut or damaged within the permit area.

Permit Area: The area identified on the Timber Report that contains all of the timber sold on that timber permit.

Permit Expiration Date: The date by which all timber permit contract activities must be satisfactorily completed.

Sawlogs: Those logs eight feet and longer, greater than twelve inches dib. on the small end, and of sufficient quality to saw lumber.

Scaling: The measuring of cut wood products. Stick scaling refers to volume measurements made by the timber sale administrator or his designee. Consumer scaling refers to wood measuring done by a wood consuming company.

Secured Timber Permits: Timber permits on which the permit holder has chosen to furnish security for the remaining stumpage balance as provided in Itasca County's "Security Policy for Timber Contracts". Such permits can be logged without paying for stumpage prior to harvest of timber.

Sold Area Estimate: Refers to wood sold based upon the volume estimate shown on the Timber Report. This wood may be subject to bid up, but requires no scale of cut products.

Stick: A 100 inch length of unprocessed wood.

Summer Chance: Timber permits that appear to be harvestable during part of the frost free season during years with average or drier than average soil moisture.

Timber Report: The portion of the timber permit that contains the volume estimates, appraised values, permit area map, legal description, permit acreage, other descriptive factors, and special cutting regulations. The remaining permit specifications are stated in the "Specifications Attachment to Timber Permit".

Winter Chance: A timber permit on which logging may be done only when frost and/or snow conditions are such that the soils on the permit area will not be rutted or compacted. In the absence of frost, this requires freezing daytime temperatures sufficient to drive adequate frost into the ground.

IX. CORD-WEIGHT CONVERSIONS

When wood is weight-scaled, the following cord-weight conversions shall apply:

N. White Cedar	2900 # / cd.	Black Ash	5000 # / cd.
Black Spruce	4200 # / cd.	Paper Birch	5000 # / cd.
White Spruce	4200 # / cd.	Soft Maple	5000 # / cd.
White Pine	4400 # / cd.	Tamarack	5000 # / cd.
Red Pine	4700 # / cd.	Aspen	4400 # / cd.
Red Pine	11,000 # / MBF	Hard Maple	5500 # / cd.
Balsam Fir	4700 # / cd.	Elm	5500 # / cd.
Jack Pine	4600 # / cd.	Oak	5500 # / cd.
Basswood	4600 # / cd.	Yellow Birch	5500 # / cd.
Balsam Poplar	4800 # / cd.	Metro Cord*	5700 # / cd.

* Full tree chipped wood.

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