**CT – Chip Trees**

**SLT – Small Log Trees (<=80 ft3)**

**LLT – Large Log Trees (>80 ft3)**

**SL – Small Trees (<=80 ft3)**

**ALT – All Log Trees**

#### Removals, trees/acre

|  |  |
| --- | --- |
|  | () |
|  | () |
|  | () |

#### Volume Per Acre, ft3/acre

|  |  |
| --- | --- |
|  | () |
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#### Tree Volume, ft3/tree

|  |  |
| --- | --- |
|  | () |
|  | () |
|  | () |

### Other Assumptions

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### Calculated Intermediates

#### DBH

DBH – Diameter at Breast Height, in

|  |  |
| --- | --- |
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#### Tree Height

|  |  |
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|  | () |

#### Wood Density

**If the wood density for chip trees, small log trees or large log trees is not specified by users, then it is 50 lb/ft3 by default.**

|  |  |
| --- | --- |
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#### Hardwood Fraction

**If the hardwood fraction for chip trees, small log trees or large log trees is not specified by users, then it is 0 by default.**

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#### Butt Diameter

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#### Logs Per Tree

**Logs per chip tree was assumed as 1.**

|  |  |
| --- | --- |
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#### Log Volume

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| --- | --- |
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|  | () |
|  | () |

#### CTL Logs Per Tree

**The minimum for CTLLogsPerTree is 1.**

|  |  |
| --- | --- |
|  | () |
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#### CTL Log Volume

|  |  |
| --- | --- |
|  | () |
|  | () |

#### BFperCF

|  |  |
| --- | --- |
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#### Bole Weight

|  |  |
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#### Residue Weight

RF – Residue Fraction

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#### Manual Machine Size

**The maximum of ManualMachineSize is 1.**

|  |  |
| --- | --- |
|  | () |
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#### Mechanized Machine Size

**The maximum of MechMachineSize is 1.**

|  |  |
| --- | --- |
|  | () |

#### Chipper Size

**The maximum of ChipperSize is 1.**

|  |  |
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#### NonSelfLevelCabDummy

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#### CSlopeFB&Harv (Mellgren 90)

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#### CRemovalsFB&Harv (Mellgren 90)

|  |  |
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#### CSlopeSkidForwLoadSize (Mellgren 90)

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#### Chardwood

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### System Product Summary

#### Amounts Recovered Per Acre

ResidueRecoveredPrimary – WT residue recovered as part of primary product, GT/ac

ResidueRecoveredOptional – Optional residue recovered, GT/ac

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#### Amounts Unrecovered and Left within the Stand Per Acre

GroundFuel – Activity fuels (residues) on the ground, GT/ac

|  |  |
| --- | --- |
|  | () |

ResidueLLT not times 1-ResidueRecovFracWT?

#### Amounts Unrecovered and Left at the Landing

PiledFuel – Piled activity fuels (residues), GT/ac

|  |  |
| --- | --- |
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No CT and LLT residue Piled? Assume all ResidueLLT left within the stand?

#### TotalResidues

|  |  |
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### System Cost Elements

#### For Primary Products (boles & WT residues), $/CCF of material treated by the activity



#### For Optional Residues, $/GT of additional residue recovered

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What is the point of residue move-in costs?

#### For All Products, $/ac

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### System Cost Summaries

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### Limits

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## **Fell&Bunch**

CostFellBunch

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### I. Drive-To-Tree

#### A) Melroe Bobcat (Johnson, 79)

PMH – Per Productive Machine hour

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#### B) Chainsaw Heads (Greene&McNeel, 91)

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#### C) Intermittent Circular Sawheads (Greene&McNeel, 91)

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#### D) Hydro-Ax 211 (Hartsough, 01)

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### II. Swing Boom

#### A) Drott (Johnson, 79) not used at present

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#### B) Timbco 2520&Cat 227 (Johnson, 88)

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#### C) JD 693B&TJ Timbco 2518 (Gingras, 88)

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#### D) Timbco (Gonsier&Mandzak, 87)

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#### E) FERIC Generic (Gingras, J.F., 96. The cost of product sorting during harvesting. FERIC Technical Note TN-245)

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#### F) (Plamondon, J. 1998. Trials of mechanized tree-length harvesting in eastern Canada. FERIC Technical Note TN-273)

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#### G) Timbco 420 (Hartsough, B., E. Drews, J. McNeel, T. Durston and B. Stokes. 97. Comparison of mechanized systems for thinning ponderosa pine and mixed conifer stands. Forest Products Journal 47(11/12):59-68)

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### III. User-Defined

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### Felling&Bunching Summary

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## **RelevanceWeightInputs**

