

CARD ONE**Column 1: Card #****Col's 2 & 3: Type Seq. #****Col's 4 & 5: Alt. #****Col's 6 & 7: Section****Col's 8-10: Township****Col's 11-13: Range****Col's 14 & 15: County****Col's 16-18: Region/Area/Dist.****Col's 19-20: State Forest****Col's 21-23: Other Mngmt. Unit****Column 24: Compartment #****Column 25: Acquisition****Column 26: Administrator****Col's 27 & 28: Cover Types**

- 01 - Ash
- 06 - Willow
- 09 - Lowland Hardwoods
- 12 - Aspen
- 13 - Birch
- 14 - Balm of Gilead
- 15 - Cottonwood
- 17 - Hybrid Poplar
- 20 - Northern Hardwoods
- 25 - Walnut
- 30 - Oak
- 40 - Central Hardwoods
- 51 - White Pine
- 52 - Norway Pine
- 53 - Jack Pine
- 54 - Scotch Pine
- 55 - Ponderosa Pine
- 61 - White Spruce
- 62 - Balsam Fir
- 64 - Norway Spruce
- 70 - Upland Larch
- 71 - Black Spruce, Lowland
- 72 - Tamarack
- 73 - White Cedar
- 74 - Black Spruce, Upland
- 81 - Red Cedar
- 82 - Cutover Area
- 83 - Lowland Grass
- 84 - Upland Grass
- 85 - Lowland Brush
- 86 - Upland Brush
- 87 - Duff
- 88 - Moss
- 75 - Stagnant Spruce-SI 22 or lower
- 76 - Stagnant Tamarack-SI 22 or lower
- 77 - Stagnant Cedar-SI 22 or lower
- 78 - Offsite Aspen-SI 34 or lower
- 79 - Offsite Oak-SI 39 or lower
- 91 - Agriculture
- 92 - Industrial Develop
- 93 - Recreation Develop
- 94 - Roads
- 95 - Rock Outcrop
- 96 - Permanent Water
- 97 - Non-Perm. Water
- 98 - Marsh
- 99 - Muskeg

Column 29: Cover Size

- 0 - Not applicable to stand
- 1 - 0 to 0.9"
- 2 - 1 to 2.9"
- 3 - 3 to 4.9"
- 4 - 5 to 8.9"
- 5 - 9 to 14.9"
- 6 - 15 to 19.9"
- 7 - 20 to 24.9"
- 8 - 25"+

Column 30: Cover Density

Code	Stems/Acre	Cords/Acre	Bd Ft/Acre
0	0-250	0.0-2.9	0-1,250
1	251-750	3.0-7.5	1,251-3,750
2	751-1,250	7.6-12.5	3,751-6,250
3	1,251-1,750	12.6-17.5	6,251-8,750
4	1,751-2,250	17.6-22.5	8,751-11,250
5	2,251-2,750	22.6-27.5	11,251-13,750
6	2,751-3,250	27.6-32.5	13,751-16,250
7	3,251-3,750	32.6-37.5	16,251-18,750
8	3,751-4,250	37.6-42.5	18,751-21,250
9	4,251+	42.6+	21,251+

Col's 31-34: Understory Type, Size, Density

Use the same code as used for main cover type, size, density.

Col's 35-37: Acres

Enter the number of acres in the stand.

Col's 38 & 39: Year

Enter the last two digits of the year in which the inventory is done.

Column 40: Topography

- 1 - Level
- 2 - Rolling
- 3 - Steep

Col's 41 & 42: Site Index

Enter the actual site index of the stand.

Column 43: Physiographic Class

- 1 - Xeric Site: Very dry; water drains through quickly.
- 2 - Xeromesic: Moderately dry; water retained for a short period of time.
- 3 - Mesic: Optimum water retention; offers favorable management.
- 4 - Hydromesic: Soil retains water for long periods of time, will drain.
- 5 - Hydric: Soil remains sat. year round.

Col's 44-46: Stand Age

Record the actual age of the stand.

Col's 47-49: Basal Area/AcreEnter the actual basal area/acre for the stand.
(DBH x 2.75 = limiting distance)**Col's 50 & 51: Cords/Acre**

Enter the total cords/acre in the stand for all species 5" - 14.9" in diameter.

Col's 52-54: Thousand Bd. Ft/Acre

Enter the total board ft. volume/acre in thousands for all species 15" and greater in diameter.

Column 55: Condition Class

- 0 - Non-Stocked: (Except for regeneration)
- 1 - High Risk: Those stands which will not survive or will have a 30% or greater volume loss need immediate treatment (0-5 years).
- 2 - Mature: Any stand at or beyond rotation age and not high risk.
- 3 - Immature: Any stand 10 years or older but less than rotation age.
- 4 - In the Process of Regeneration: Stands less than 10 years old
- 5 - Extended Rotation Forest (ERF)

Column 56: Timber Status

- 0 - Not applicable
- 1 - Normal timber harvest allowed
- 2 - Restricted timber harvest allowed
- 3 - No timber harvest allowed
- 4 - Shoreline restriction
- 5 - Old growth stand: No timber harvest allowed

6 - Old growth management zone:

Restricted timber harvest allowed

7 - Future old growth or old growth candidate: No timber harvest allowed during evaluation period**8 - Stands adjacent to future old growth or old growth candidates:** Restricted timber harvest allowed during evaluation period.**9 - Under development****Col's 57 & 58: Main Spec. in Type**

- 01 - Black Ash
- 02 - American Elm
- 03 - Silver Maple
- 04 - Red Elm
- 05 - Rock Elm
- 06 - Willow
- 12 - Trembling Aspen
- 13 - Paper Birch
- 14 - Balm of Gilead
- 15 - Cottonwood
- 16 - Largetooth Aspen
- 17 - Hybrid Poplar
- 21 - Red Maple
- 22 - Sugar Maple
- 23 - Basswood
- 24 - Yellow Birch
- 25 - Walnut
- 26 - Butternut
- 27 - Cherry
- 28 - Buckeye
- 31 - No. Red Oak
- 32 - Black Oak
- 33 - No. Pin Oak
- 34 - White Oak
- 35 - Burr Oak
- 36 - Scarlet Oak
- 38 - White Ash
- 39 - Green Ash
- 41 - Bitternut Hickory
- 42 - Shagbark Hickory
- 43 - Hackberry
- 45 - Box Elder
- 51 - White Pine
- 52 - Norway Pine
- 53 - Jack Pine
- 54 - Scotch Pine
- 55 - Ponderosa Pine
- 56 - Austrian Pine
- 61 - White Spruce
- 62 - Balsam Fir
- 63 - Colorado Spruce
- 64 - Norway Spruce
- 65 - Black Hills Spruce
- 71 - Black Spruce
- 72 - Tamarack
- 73 - White Cedar
- 81 - Red Cedar
- 82 - Hemlock
- 83 - Douglas Fir
- 84 - European Larch
- 85 - Japanese Larch
- 86 - Siberian Larch
- 91 - Locust
- 92 - Ironwood
- 93 - River Birch
- 94 - Blue Beech
- 99 - Misc.

Col's 59 & 60: D.B.H.

Enter the DBH in inches.

Col's 61 & 62: Height

Record the average height of the main species in the type.

Col's 63-65: Vol/Acre

- a) If DBH is less than 4.9" volume will be in thousands of stems/acre.
- b) If DBH is 5.0"-14.9" volume will be in cords/acre.
- c) If DBH is 15" or greater volume will be M.B.F.

Col's 66 & 67: Damage

00 - None

INSECTS

- 01 - Defoliators
- 02 - Bark Beetles
- 03 - Wood Borers
- 04 - Spittlebug
- 05 - WP Weevil
- 06 - Spruce Budworm
- 07 - JP Budworm
- 08 - Shoot Insects
- 09 - Poplar Borer
- 10 - Root Collar Insects
- 15 - Insects (other)

DISEASES

- 16 - WP Blister Rust
- 17 - WP Blister Rust w/ WP Weevil
- 18 - Sweet Fern Blister
- 19 - Scleroderris Canker
- 20 - Sirococcus Shoot Blight
- 21 - Butternut Canker
- 22 - Oak Mortality
- 23 - Dwarf Mistletoe
- 24 - Diplodia Tip Blight
- 25 - Hypoxylon Canker
- 26 - Phellinus
- 27 - Hypox. Canker w/ Phellinus of Aspen
- 28 - Heart Rot
- 29 - Dutch Elm Disease
- 30 - Birch Decline
- 31 - Hardwood Cankers
- 32 - Needle Rust
- 33 - Shoestring Root Rot
- 40 - Diseases (other)

ANIMALS

- 41 - Beaver
- 42 - Porcupine
- 43 - Rabbit - Mice
- 44 - Deer or Moose
- 45 - Sapsucker
- 50 - Animal (other)

ENVIRONMENT

- 51 - Windthrow
- 52 - Drought
- 53 - Ice Breakage
- 54 - Fire
- 55 - Flooding
- 56 - Hail
- 57 - Frost Cracks
- 60 - Environmental (other)

OTHER

- 61 - Mechanical (result of machines)
- 62 - Chemical Damage (herbicide, etc)
- 99 - Unknown

Column 68: Percent Affected

Ocular estimate of the percentage of trees in the stand that is affected by the "damage"

- 0 - None
- 1 - 1 to 10%
- 2 - 11 to 25%
- 3 - 26 to 50%

(cont'd next column)

4 - 51 to 80%

5 - 81 to 100%

Column 69: Percent Mortality

Estimate of the percentage of standing dead trees in the stand (over 4.5' tall). Same codes as Col. 68.

Col's 70 & 71: Shrubs; Compo.

- 00 - No shrub species present
- 01 - Unknown, below snow
- 02 - Predom. Labrador tea, leatherleaf
- 03 - Predom. Lowland Alder
- 04 - Predom. Lowland Willow
- 05 - Predom. Prickly Ash
- 06 - Predom. Raspberry or Rubus spec.
- 07 - Alder and or Willow (with other good browse species present)
- 08 - Comb. of upland Blueberry and other low shrubs
- 09 - Predominantly Sumac
- 10 - Predominantly Hazel
- 11 - Comb. of Hazel and/or Honeysuckle, Mt. Maple, Dogwoods, Juneberry, Upland Willow.
- 12 - Predominantly Dogwood
- 13 - Predominantly Mt. Maple

Column 72: Shrubs; Distribution

- 0 - No shrubs present
- 1 - Fairly uniform throughout stand
- 2 - Scattered clusters
- 3 - Single cluster within stand

Column 73: Shrubs; Density

- 0 - No shrubs present
- 1 - Low
- 2 - Moderate
- 3 - Heavy

Column 74: Shrubs; Browse

- 0 - No shrubs present
- 1 - Nothing avail. to deer
- 2 - Small amount available
- 3 - Moderate amount available
- 4 - High amount available

Column 75: Shrubs; Grnd Cover

- 0 - Unknown (below snow)
- 1 - Predom. litter, bare, rock
- 2 - Grasses/sedges (wet)
- 3 - Predom. smartweed, fireweed, jewelweed, nettle or comb.
- 4 - Predom. sphagnum moss
- 5 - Predom. feather moss
- 6 - Predom. ferns and grasses (dry)
- 7 - Predom. blueberry, sweetfern, wintergreen, bearberry, grasses
- 8 - Predom. largeleaf aster, wild sarsaparilla, clinton's lily
- 9 - Predom. goldenrod, aster, clovers, lupine, weeds

Column 76: Recon. Level

- 0 - Other
- 1 - Aerial photo interpretation only
- 2 - Checked from aircraft
- 3 - Ground checked (not snow covered)
- 4 - Ground checked (1" - 6" snow)
- 5 - Ground checked (7" - 1' snow)
- 6 - Ground checked (1' - 2' snow)
- 7 - Ground checked (2' - 3' snow)
- 8 - Ground checked (3' + of snow)
- 9 - Type comparison with a like type that has been ground checked.

Column 77: Stand Origin

- 0 - Not applicable
- 1 - Natural stand with no evidence of artificial regeneration.
- 2 - More than 40% of the plot location occupied by trees originating from artificial means.
- 3 - Less than 40% of the plot occupied by artificially regenerated trees.

Column 78: Dist All Weather Rd

- 0 - 0 to 1 mile
- 1 - 1 to 2 miles
- 2 - 2 to 3 miles
- ditto to 9 to 9+ miles

Column 79: Sig. Condition

- 0 - None or none known
- 1 - Unusual botanical features
- 2 - Unusual geological features
- 3 - Unusual historical features
- 4 - Unusual scenic/rec. potential
- 5 - Eagle or osprey nesting area
- 6 - Active deer yarding area
- 7 - Other unusual wildlife feature
- 8 - Other features
- 9 - White Pine cluster(s) present

Column 80: # of Cards Used

- 0 - Neither Card 2 or 3 used
- 1 - Both Card 2 & 3 used
- 2 - Only Card 2 used
- 3 - Only Card 3 used

CARD TWO (Trees \geq 5" DBH)**Col's 2-30 (N/A)****Col's 31 & 32: Species**

Use species code list, Card I, Col's 57 & 58.

Col's 33 & 34: DBH

Record the estimated average diameter of the species identified. (Round down)

Column 35: Distribution

- 1 - Spec. is dist. throughout the type.
- 2 - Spec. is in clusters throughout type.
- 3 - Spec. is in a single cluster within type.

Column 36-38: Volume/Acre

Record the est. volume/acre of the above species over the entire stand area. Card One, Col's 63-65.

Col's 39-40: Damage

Same codes as Card One, Col's 66-67.

Col's 41: Harvest

Record the code number representing whether this species in the type should be harvested within the next 10 years.

- 0 - No
- 1 - Yes

CARD THREE (Trees \leq 4.9" DBH)**Col's 2-30: (N/A)****Col's 31 & 32: Species**

Use species code list, Card I, Col's 57 & 58.

Column 33: DBH

Record the size class code with the most stems.

- 1 - 0 to 0.9"
- 2 - 1 to 2.9"
- 3 - 3 to 4.9"

Column 34: Density

Use the Density Codes from Card I, Col. 30.

Column 35: Distribution

Record the code number from the Distribution Code on Card Two, Column 35.

Col's 36 & 37: Damage

Same as codes in Card One, Col's 66-67.