Damage and Severity Codes (all live trees)

Below is a description of damage and severity codes, which are separated into 2 or 3 columns (variables) per damage observed for a tree. Column (1) labeled "**Dam**" is a 2 character damage code and column (2) labeled "**SV**" is 1 character (or digit) severity code, and column (3) labeled "**Recnt**" is 1 character recency code. Up to three different sets of damage codes can be used for one tree (i.e. DamAxx, DamBxx, DamCxx, SVAxx, SVBxx, SVCxx, RecntAxx, RecntBxx, RecntCxx where xx = year).

DAMAGE CODE (Dam) and SEVERITY CODE (SV) – columns 1 and 2

Code	Severity of Damage (SV), use for all damage unless defined otherwise
M	Damage likely to reduce monetary value or vigor substantially
S	Damage likely to render tree monetarily worthless or likely to eventually result in tree death
N	Minimal or no economic damage

Code	Animal Damage (Dam)
AD	Animal damage (other than listed below)
AR	Antler rub
BD	Bear bark removal
BR	Deer or elk browse
BV	Beaver
PD	Porcupine
RH	Rabbit/Hare clipping
SH	Sapsucker or woodpecker feeding holes (typically ring(s) of small diameter, pencil sized holes around stem)
WC	Woodpecker cavities (usually found in dead portions, but occasionally found in live stems)

Code	Crown Appearance, Disease, and Insects (Dam)
AP	Aphids
CH	Chlorotic (yellowish needles; may be a symptom of root rot)
DI	Diseased/sick/dying (declining vigor, short, sparse needles sometimes accompanied by chlorotic appearance)
LA	Leaf abnormalities (rusts, blisters, curling)
LE	Leaf eating insects
MI	Mistletoe
RU	Blister rust (on white pine)
TA	Limb and twig abnormalities (galls, cankers, lesions, witches brooms, etc.; not blister rust)

Code	Logging (Dam)
LB	Live Branch Breakage (felling damage to major branches)

Code	Severity (SV)
1	1 - 5 major branches broken
2	More than 5 major branches broken

RD	Root Damage (usually caused by skidding)

Code	Severity (SV)
1	Support roots damaged on 1 side of tree

2 Support roots damaged on 2 sides of tree
3 Support roots damaged on 3 sides of tree
4 Support roots damaged on 4 sides of tree

SB Basal Bark Removal (debarking within first 1.3 meters (m) above ground on bole, usually caused by skidding, and can extend into bole section above 1.3 m. Used only for wounds occuring within the first 1.3 m. If wound does not extend into the lower 1.3 m, then code as upper bole damage, **UB**.) Basal bark removal severity is divided into two single numeric fields, one for the width dimension (circumference class), and one for the vertical dimension (length class); both fields must be completed for basal bark removal.

Severity (SV)

Code	Circumference Class (width dimension)
1	Bark missing on < 10% of circumference
2	Bark missing on 10 - 25% of circumference
3	Bark missing on 26 - 50% of circumference
4	Bark missing on 51 - 75% of circumference
5	Bark missing on 76 - 95% of circumference
6	Bark missing on more than 95% of circumference

Code	Length Class (vertical dimension)
1	< 0.5 m (<1.5 feet (ft))
2	0.5 - 0.9 m (1.5 - 2.9 ft)
3	1.0 - 1.4 m (3.0 - 4.4 ft)
4	1.5 - 1.9 m (4.5 -6.0 ft)
5	2.0 m + (6.0 ft +)

UB Upper Bole Damage (usually felling damage to bole above 1.3 m. Not used for wounds extending into the lower 1.3 meters of the bole. For wounds extending into the lower 1.3 meters of the bole, use basal bark removal damage code, **SB**.)

Code	Severity
1	2 - 3 m vertical stripe, 1 side only
2	3+ m vertical stripe, 1 side only
3	Vertical stripe(s) on 2 or more sides

LT Broken top caused by logging.

Code	Severity (SV)
1	Leader or tip missing (top 1-3 internodes missing)
2	25% or less of crown missing, but more than 3 internodes missing
3	26 - 50% of crown missing
4	More than 50% of crown missing
5	Leader or stem broken, but still attached and alive

LL Excessive lean (includes bent; excludes down) caused by logging.
LR Uprooted, down but alive caused by logging
XT Bough theft

Code	Severity (SV)
1	less than 10% of crown removed
2	10-25% of crown removed
3	25-50% or crown removed
4	more than 50% of crown removed
5	tree cut

Code Weather (Dam)

BB Branch Breakage (breakage of live major branches due to wind)

Code	Severity (SV)

1	1 - 5 major branches broken
2	More than 5 major branches broken

BL Blow-down
DE Desiccation
LG Lightning
SS Sunscald
SN Snow damage
TD Tip dieback (frost damage)
UR Uprooted, down (alive)

Code **Stem and Root Diseases and Insects (Dam)**

BE Bark beetles
RR Root rot
SD Stem decay
SC Cankers, galls, and lesions
SR Rusts
WB Wood borers (primarily in hardwoods)

Code **Stem Physical Defects (stem form) (Dam)**

BS Basal scar (origin unknown)
BT Broken top

Code	Severity (SV)
1	Leader or tip missing (top 1-3 internodes missing)
2	25% or less of crown missing, but more than 3 internodes missing
3	26 - 50% of crown missing
4	More than 50% of crown missing
5	Leader or stem broken, but still attached and alive
6	All of crown missing (severe wind)

BU Browsed into bush form
CK Cracks
CR Crook
DT Dead top

Code	Severity (SV)
1	Leader or tip dead (top 1-3 internodes dead)
2	25% or less of crown dead, but more than 3 internodes dead
3	26 - 50% of crown dead
4	More than 50% of crown dead
5	Leader or stem broken, but still attached and dead

EB Epicormic branching

Code	Severity (SV)
1	< 1.2 m of bole (< 4 ft)
2	1.2 m – 4.9 m of bole (4 – 16 ft)
3	> 4.9 m of bole (> 16 ft)

EL Excessively limby (wolf tree or grouse ladder)
FT Forked top or stem

Code	Severity (SV)
1	Leader or tip forked (Within top 1-3 internodes)
2	within crown, but below top 3 internodes
3	above breast height (BH) but below crown

4	at or below BH

FU Fluting

MT Multiple top or stem (more than 2 above BH

Code	Severity (SV)
1	Multiple leader or tip (Within top 1-3 internodes)
2	within crown, but below top 3 internodes
3	above BH but below crown
4	at or below BH

RB Ramicorn branch(es)

SI Sinuosity

SG Stems grown together (cannot measure separately)

SW Sweep

SP Sprout (origin of stem)

WP Whip

XL Excessive lean (includes bent; excludes down)

XB Excessive butt swelling

RECENCY CODE (Recnt) – column 3

Code	Recency of Damage
N	New; since last measurement
O	Old; before last measurement