

BEECH SCALE/NECTRIA MONITORING PLOT

OBJECTIVES

To compare the development of the causal agents of beech bark disease and the expression of symptoms on affected hosts.

METHODS AND MATERIALS

PLOT ESTABLISHMENT:

Each observation plot will contain 50 beech trees (≥ 6.0 " in DBH) individually numbered.

DATA TO BE TAKEN:

Species: Required only if some plot trees are not American Beech. Use FHM codes.

531	American Beech
371	Yellow Birch
318	Sugar Maple
316	Red Maple
097	Red Spruce
261	Eastern Hemlock

DBH: Required in Year One Only

Record diameter breast height (4.5 feet) in inches

Crown Class: Required in Year One Only

- 1 - dominant
- 2 - co-dominant
- 3 - intermediate
- 4 - overtopped

Tree Condition:

- 1 - good: foliage green, <10% dead crown branches
- 2 - fair: foliage green to yellow green, 10-50% dead crown branches
- 3 - poor: foliage green to yellow green, >50% dead crown branches
- 4 - dead: no foliage alive

Crown Chlorosis: score 0 to 2

- 0 - green
- 1 - slight chlorosis
- 2 - marked chlorosis

Crown Thinness: score 0 to 2

- 0 - normal crown density
- 1 - some reduction in size or amount of crown foliage
- 2 - marked thinness of crown foliage

Dieback and Transparency:

The FHM codes listed below should be used for crown dieback and foliage transparency:

Code	Definition	Code	Definition	Code	Definition
00	0%	35	31-35%	70	66-70%
05	1-5%	40	36-40%	75	71-75%
10	6-10%	45	41-45%	80	76-80%
15	11-15%	50	46-50%	85	81-85%
20	16-20%	55	51-55%	90	86-90%
25	21-25%	60	56-60%	95	91-95%
30	26-30%	65	61-65%	99	96-100%

Height Zones: Assess as seen from ground so that increases in subsequent years will be recorded as they become visible.

- 1 - up to 6 feet
- 2 - 6-12 feet
- 3 - above 12 feet

Wax Cover: *Cryptococcus fagisuga* infestation as evidenced by amount of wax secreted.

Score white wax, indicative of active or recent infestation, in each of three height zones. Excluding category 1, all descriptions refer to at least half the zone being as severe as the score class is defined. For areas up to half the zone, ascribe to the next lower category.

- 0 - No colonies visible.
- 1 - Trace, from one colony to very light scattered individual female colonies. One or two larger colonies only.
- 2 - Light, scattered colonies. Some larger colonies may be present.
- 3 - Moderate infestation, many colonies visible. Substantial number of larger colonies may be present.
- 4 - Heavy infestation. Many large colonies present. Some colonies coalescing.
- 5 - Very Heavy infestation. Much of bark conspicuously white.

Tarry Spots: active or recently formed exudations. Count as number of clearly separate tarry areas. Score in each height zone as follows:

- 0 - tarry spots absent on assessment area
- 1 - 1 to 5 tarry spots
- 2 - 6 to 10 tarry spots
- 3 - more than 10 tarry spots

Nectria Fruiting: score 0 to 4 in each height zone for clearly visible red or brownish perithecia.

- 0 - Absent
- 1 - Sparse, localized perithecia or few widely scattered circular infestations.
- 2 - Moderate, scattered fruiting on isolated circular infections.
- 3 - Heavy. A heavy covering of isolated circular infections with heavy fruiting; some coalescing into larger patches.
- 4 - Very Heavy. Large areas with heavy fruiting, such that part of the diseased or dead tree is conspicuously red or brownish.

BEECH PLOT DATA SHEET

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TOWN: _____

DATE: _____

NOTES:

COUNTY: _____

CREW: _____

PLOT# _____

TREE ID	CROWN EVALUATION								SCALE/NECTRIA SYMPTOMS						TRUNK DAMAGE*				NOTES	
	SP*	DBH**	CLASS**	COND.	CHLOR.	THINN.	DIEB.	TRANS.	WAX COVER	TARRY SPOTS	NECTRIA FR.	DEFFECT #1 LOC.	DAM. SEV.	DEFFECT #2 LOC.	DAM. SEV.					

*Optional **Required in One Year

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PAGE ___ OF ___

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				CLASS**	COND.	CHLOR	THINN.	DIEB.	TRANS.	WAX COVER			TARRY SPOTS			NECTRIA FR.			DEFECT #1		DEFECT #2					
										1	2	3	1	2	3	1	2	3	LOC.	DAM.	SEV.	LOC.	DAM.	SEV.		

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TOWN _____
 COUNTY _____
 PLOT # _____

DATE _____
 CREW _____

NOTES _____

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TREE ID	FILE #	SP	DBH	CLASS	COND	CLEAN	TRUNK	DEBR	TRASH	WAX COVER		NECTRIA FRUITS			DIEBACK #1		DIEBACK #2		NOTE
										1	2	1	2	3	1	2	3	LOC	

Required in Year One