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
- <u>DBH</u>: 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

<u>Crown Chlorosis</u>: 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%

<u>Height Zones</u>: 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 <u>Trace</u>, from one colony to very light scattered individual female colonies. One or two larger colonies only.
- 2 <u>Light</u>, scattered colonies. Some larger colonies may be present.
- 3 <u>Moderate</u> 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.

<u>Tarry Spots</u>: 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 <u>Heavy</u>. A heavy covering of isolated circular infections with heavy fruiting; some coalescing into larger patches.
- 4 <u>Very Heavy</u>. Large areas with heavy fruiting, such that part of the diseased or dead tree is conspicuously red or brownish.

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