




Beech Leaf Disease Survey Questions

Title: NH Cottage, Year 3 Resurvey, 7/8/2022

| | | |
|----------|---|--|
| A. | Survey Date | 7/8/2022 |
| B. | Survey Location | Behind our cottage |
| 1- 2. | County, State | Carroll County, NH |
| 3. | Size of tree | 4 inches, Ruler |
| 4. | How many leaves are on the tree? | 95-100% |
| 5. | Of the leaves present, what percentage are normal shape and size without any striping? | 95-100% |
| 6. | Of the leaves present, what percentage are normal in shape and size with banding (mild BLD symptoms)? | 0% |
| 7. | Of the leaves present, what percentage are shrunken and curled? (heavy BLD symptoms) | 0% |
| 8. | Take a picture of leaves showing the worst symptoms on the tree. This could be a healthy leaf, a mild symptom leaf with banding, or a heavy symptom leaf that is dark, shrunken and curled. | 3080  |
| 9. | Take a picture of a leaf that is most representative of the leaves on the tree. This may be a completely healthy leaf or one showing BLD symptoms. | 3079  |
| 10. | Are there signs of beech bark disease (BBD)? Beech scale insects are tiny white clusters on the bark. Nectria is a small, red fungus that enters through cracks on the bark from scale insects. Cankers or abnormal bark often form as a result of BBD. | <input checked="" type="checkbox"/> Scale insects <input checked="" type="checkbox"/> Cankers or cracks <input type="checkbox"/> Nectria fruiting bodies <input type="checkbox"/> No signs of BBD |
| 11. | Do the leaves show insect damage from mites? | Yes |
| 12. | Is there necrotic tissue? | No |
| 13. | Is there leaf rolling along the margins from aphids that cause yellowing and a cracked glass appearance? | Yes |
| 14. | Are there beech blight aphids? | Yes |
| 15. | Is there bud suspension? | No |
| 16. | Is the tree fruiting? | No |
| 17. | Enter any additional notes you would like. Be as detailed as possible. | (See bottom of page.) |
| 19. | Optional: Submit a photo of other symptoms you see | 3075  |

17. This Year 3 resurvey was conducted on 7/8/2022. The initial survey and Year 2 resurvey were conducted on 6/27/2020 and 7/10/2021, respectively.

The resurvey covered parts of 2 parcels. One had been logged more recently (but >30 years) and is dominated by beech. The other has a mixture of mature white pine, hemlock, beech, and striped maple. No one tree was representative of the population, whose numbers dropped off exponentially from the sprouts to the "huggers". While one tree was chosen as representative, the answers in this survey are a composite of the population. No BLD was seen anywhere. >90% of the larger trees have BBD cankers. 50-75% of the smaller trees have BBD cankers.

The worst case photo shows leaf striping, which at first alarmed me. Then I realized the stripes were light (not dark like BLD), the stripes were yellowing and had a cracked glass appearance, and every leaf so affected also had a rolled edge, therefore I was looking at an aphid infestation, not BLD. A close look at the photo reveals very many aphids on the leaf surface, especially along the veins. I think those are blight aphids that are independent of the other symptoms observed. Less than a quarter of trees bore any yellowing stripes, and those that did had only a few such leaves each.

Some of the smaller trees had the usual common leaf mites on the lower branches – the optional photo shows a bad case of this.

The representative photo was chosen because all of the leaves look healthy, with only a few blemishes. Leaves higher above the ground tended to be healthier.

The pin placement on the map is estimated. The geotags from my GPS-equipped camera indicate the following coordinates:

Worst case photo: 43.6842N, -71.0085W,

Representative photo: 43.6842N, -71.0085W,

Optional photo of mite damage: 43.6843N, -71.0079W.