

Notes 6/8/16 (M.Johnston)

Across 13 sites there are approximately 642 tagged beech trees ≥ 10 cm dbh (2011 inventory). The tagged trees are distributed as follows:

Table 1. Summary of tagged, live beech trees on MELNHE sites based on 2011 inventory records. Number of beech trees per plot, average dbh and range (smallest to largest), and average BBD rating (Vadeboncoeur, visual rating, 2011). Blue highlighted rows represent stands with sufficient trees distributed across treatments for proposed nutritional and disease assessment procedures.

Site	Number (P 1,2,3,4,5**)	2011 Average dbh cm (range)	Average BBD Rating****
C1	11 (2,3,4,2)	8.8 (3.6*-17.7)	
C2	23 (3,1,11,8)	12.1 (10.3-16.1)	
C3	100 (23,29,22,26)	12.4 (9.0-20.9)	2.1
C4	30 (13,4,7,6)	11.7 (10.0-16.8)	2.1
C5	28 (8,10,7,3)	11.5 (9.2-14.6)	
C6	88 (19,12,16,20,21)	13.9 (9.5-24.0)	2.4
C7	132 (40,27,28,42)	23.0 (10.1-50.6)	3.2
C8	137 (36,32,30,16,23)	21.3 (9.7-65.1)	3.6
C9	78 (21,20,22,19)	19.9 (10.0-62.3)	3.2
HBCa	24 (16,8,0,0)	20.0 (10.8-47.9)	
HBM	4 (0,0,1,3)	Too few	
HBO	86 (26,13,20,28)	20.1 (10.0-51.8)	3.1
JBM	2 (0,0,2,0)	Too few	
JBO	23 (5,6,8,0***,4)	17.4 (10.6-27.3)	2.1

* Trees < 10 cm DBH on C1 were tagged because they were shot in 2009

** Plot 5 only occurs where a CaSiO₄ add-on was implemented

*** Plot 4 at JBO is a Control, so substitute trees off-plots could be utilized

**** BBD rating is a scale from 1 (no evidence of disease) to 5 (severely diseased)

The sites highlighted in blue are those most likely to have sufficient beech trees for monitoring the effects of N and P on BBD progress. At JBO, off-plot trees would have to be selected for control use as no beech trees were tagged on the control plot (Plot 4).

Sites C3 and C4 may represent highest priority for establishing photo monitoring, due to smaller diameter classes, lowest disease ratings, and greatest likelihood of further developing BBD in next few years. Stand C6 may also be of interest for these same reasons (though size class is slightly larger).

Site JBO may also be of interest because of perceived lower level of BBD expressed in 2011 relative to size class, especially if this is thought to be a nutrient rich site.

Ideal stands for comparison might be JBO-C8 to compare lowest to highest BBD severity within similar size class; add C9, C7, HBO for additional trees in that size class. The 2011 ratings could be refined using Aaliyah's ratings (that would be a good task for someone to familiarize oneself with the data set).