

2019 Overwintering Spruce Budworm Larval L2 Samples – Maine Protocol

September, 2019 – Maine Forest Service & The Cooperative Forestry Research Unit

This is a coordinated effort between northern Maine landowners/managers, Maine Forest Service and the Cooperative Forestry Research Unit (CFRU). Sample locations on property you own or manage are based on a prioritized scientific sub-sample of 2018/19 pheromone trap locations. Having accurate GPS locations of where the L2 samples are collected is important. Sampling should be completed by **October 30th for all Priority Sites** and by **November 30th** for all other sites. A CFRU funded project will cover the cost of sample processing in the lab.

At each pheromone trap location, sample one dominant branch from each of three balsam fir or spruce trees within a roughly 30-foot radius. The sample branches should not overlap each other. Each branch should come from the mid-crown of trees representative of the stand (i.e. half-way up the living portion).

At each site:

1. Take one GPS point, centrally located at the pheromone trap location.
2. Using pole pruners (with extensions if needed), sample one mid-crown branch from each of three dominant or co-dominant spruce or fir trees.
3. For each branch sample (3 per site, each from a different tree):
 - a. Trim the branch to exactly 30 inches long, measured from the tip along the midline
 - b. Label the outside of a paper bag, legibly, in permanent marker with:
 - i. **Location ID:** Preassigned for each location
 - ii. **Township:** Could be more than one location per township
 - iii. **Pheromone Trap ID:** Unique identifier for each trap location
 - iv. **Latitude & Longitude:** Decimal degrees to four decimal places (i.e. 44.8968°, -68.6672°)
 - v. **Tree #:** Assign a unique number to each tree sampled (1, 2 or 3)
 - vi. **Sample Date:** Date samples collected
 - c. Place each branch into a separate, individually labeled paper grocery bag (one branch per bag). Branches may be folded so they easily fit into the bag.
4. Bundle 3 bags together with flagging or string.
5. **Samples need to be stored in a cold, shaded, dry location (<40F), until they can be transported to a central holding facility.**
6. Record data in spreadsheet provided by CFRU
7. Contact the CFRU office or Neil to arrange for sample pick up or drop off.

Defoliation will be estimated by University of Maine Students following regionally accepted protocol. Samples will then be processed at the Canadian Forest Service (CFS) lab in Fredericton and results will be available in late February. Contact the CFRU office at (207) 581-2893 cfru@maine.edu for Orono, ME or Neil Thompson neil.thompson@maine.edu for Fort Kent, ME to arrange sample pick-up/drop off.

Supplies:

Pole pruners & clippers
Paper bags (3 per location)
Stapler
Permanent marker
GPS unit