

APPENDIX A-5

**A QUICK MEASURE OF THIRPS POPULATIONS
USING BUDS OF SUGAR MAPLE REGENERATION**

PROTOCOL

Developed by

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Purpose:

- To find a quick, easy method to compare thrips populations from year to year or stand to stand
- To relate bud counts to stand defoliation

Method Used:

- Sampling was done when buds on sugar maple regeneration were 1-1 1/2" long (late April-early May)
- Five overstory maples were selected on a transect through the sugarbush
- 100 buds were collected and bagged together from sugar maple regeneration around each of the five sample trees
- Each bud was taken apart and all leaves unfolded. All adult thrips were counted.
- Counts were made within several days of collection
- Defoliation of each overstory tree was evaluated by mid-June

Method has been used annually since 1986

Equipment Needed: Baggies, Twistems, Tree Labels

How it Worked:

- Sampling and counting could be completed in as little as an hour per stand
- Thrips numbers in regeneration buds were correlated to overstory defoliation
- Annual average bud counts in the region paralleled yearly fluctuations in mapped acres defoliated
- The method is not useful for predictive purposes because there is little lead time between when counts are made and when defoliation occurs

How Technique Could be Improved:

- If counts/bud instead of counts/100 buds are desired, buds need to be bagged separately, or counts need to be made on-site. The thrips come out of the buds in transit
- Because many buds have "zero" counts, a sequential sampling method would save a time

THRIPS SURVEY: BUD COUNTS

Date: _____

Town: _____

Owner: _____

Observer: _____

of Thrips per Bud Collected around Tree #:

Bud #	1	2	3	4	5
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Total					
Avg/Bud					
Avg Bud Length(in.)					