

# New England Christmas Tree Pest Management Survey Preliminary Report

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A 59-question survey was distributed by the University of Connecticut Cooperative Extension to New England growers in the spring of 2008. A Dillman survey methodology was used to design and conduct the survey. This is a preliminary report has a selection of questions and responses from the survey. The original survey and final report will be available in January 2009 at [www.pronewengland.org](http://www.pronewengland.org).

## Christmas Tree Pest Management Survey Returns

State	#Growers	# Acres
CT	45	641
MA	44	540
ME	47	1,259
NH	11	369
RI	12	243
VT	33	831
<b>Total</b>	<b>192</b>	<b>3880</b>

**Question A3.** What percentage of your Christmas trees are: (\*N=191)

Variety	Percent of Growers	Percent of Acres
<b>Balsam Fir</b>	<b>84</b>	<b>53</b>
<b>Fraser Fir</b>	<b>75</b>	<b>25</b>
<b>Blue Spruce</b>	<b>45</b>	<b>5</b>
<b>Concolor Fir</b>	<b>36</b>	<b>2</b>
<b>White Pine</b>	<b>31</b>	<b>2</b>
<b>Douglas Fir</b>	<b>28</b>	<b>3</b>
<b>White Spruce</b>	<b>23</b>	<b>4</b>
<b>Canaan Fir</b>	<b>19</b>	<b>4</b>
<b>Scotch Pine</b>	<b>13</b>	<b>&lt;1</b>
<b>OTHER</b>	<b>19</b>	<b>3</b>

**\*N is used throughout the entire document and refers to the number of growers who answered the question.**

**Question A4.** What percentage of your Christmas tree crop is sold through each of these markets? (N=191)

Markets	Percent of Growers	Percent of Acres
Cut your own	89	47
Fresh market, wholesale	31	43
Fresh market, retail	24	8
*Other	4	2

### **Insects and Mites Section**

Grower reported the insects and mites that required “routine annual management, require occasional management, or are never a problem on your farm?” The pests are ranked based on this information through a weighed number. (N= 185) The percent of acres treated for these pests are in the last column. Growers (107) made on average 2.4 insect/miticide applications for controlling these pests.

Rank	Insect/Mite	Weighed Number*	Percent of Treated Acres
1	Balsam Twig aphid	356	12
2	White Pine Weevil	306	5
3	Spruce Spider Mite	260	9
4	Spruce Gall Adelgid	162	<1
5	Balsam Gall Midge	152	6
6	Pales weevil	126	3
7	Crytomeria/hemlock scale	96	4
8	Sawfly Larvae	72	3
9	Pine Shoot borer	78	2
10	Pine Root Collar	10	<1

\*The weighed number was determined by multiplying routine annual management by 4, occasional management by 2, and never a problem by 0.

## **Disease Section**

Grower reported the diseases that required “routine annual management, require occasional management, or are never a problem on your farm?” The diseases are ranked based on this information through a weighed number. (N= 185) The percent of acres treated for these diseases are in the last column. Twenty percent of the growers indicated that they applied fungicides/bactericides and made on average 2.2 treatments.

<b>Rank</b>	<b>Disease</b>	<b>Weighed Number*</b>	<b>Percent of Acres Treated</b>
<b>1</b>	Rhabdocline needlecast	<b>174</b>	<b>3</b>
<b>2</b>	Rhizosphaera needlecast	<b>116</b>	<b>1</b>
<b>3</b>	Phytophthora root rot	<b>106</b>	<b>&lt;1</b>
<b>4</b>	Swiss needlecast	<b>56</b>	<b>1</b>
<b>5</b>	Repeating spruce needle rust	<b>54</b>	<b>1</b>

\*The weighed number was determined by multiplying routine annual management by 4, occasional management by 2, and never a problem by 0.

## **Weed Management Section**

Grower reported the weeds that required “routine annual management, require occasional management, or are never a problem on your farm?” The weeds are ranked based on this information through a weighed number. (N= 185) Eighty-six percent of the growers used herbicides to control weeds. There were on average 2.7 herbicide applications per grower.

<b>Rank</b>	<b>Weeds</b>	<b>*Weighed Number</b>	
<b>1</b>	Perennial broadleaf weeds	<b>628</b>	
<b>2</b>	Annual broadleaf weeds	<b>626</b>	<b>302</b>
<b>2</b>	Annual grasses	<b>626</b>	
<b>4</b>	Perennial grasses	<b>616</b>	<b>160</b>

\*The weighed number was determined by multiplying routine annual management by 4, occasional management by 2, and never a problem by 0.

## **Pest Management Decision Making Section**

**Question H1.** Please select the single option that best describes your use of monitoring for insect or mites pests.

<b>%Growers</b>	<b>Pest Monitoring Practices</b>
<b>23</b>	Treatments primarily made on calendar basis, with few decisions based on monitoring
<b>48</b>	Informal observations influence decisions, but formal sampling methods and thresholds not used.
<b>13</b>	Sampling according to standard procedures or traps, observations compared to pest threshold
<b>6</b>	Sampling or trapping with thresholds, plus use of pest models to determine need or timing for control

**Question H2.** Please select the single option that best describes your use of monitoring for disease management.

<b>%Growers</b>	<b>Pest Monitoring Practices</b>
<b>20</b>	Treatments primarily made on calendar basis, with few decisions based on monitoring
<b>51</b>	Decisions based on informal observations, but leaf/fruit sampling or infection period tracking not used.
<b>8</b>	Infection period duration or intensity estimated, leaf or fruit sampling for symptoms.
<b>5</b>	Detailed infection period tracking and sampling or use of disease models.

**Question H3.** Please select the single option that best describes your use of monitoring for weed management.

<b>%Growers</b>	<b>Pest Monitoring Practices</b>
<b>34</b>	Treatment made on calendar basis, with few decisions based on monitoring
<b>47</b>	Decisions based on informal observations, but no formal weed scouting or weed mapping
<b>11</b>	Decisions based on informal observations, but weed scouting or weed map used for a few special situations
<b>5</b>	Weed scouting records or weed map used for most plantings

**Question H4.** Who does insect trapping or field scouting on your farm (Please circle all that apply)

<b>%Farms</b>	<b>Who monitors for pests?</b>
<b>67</b>	Grower
<b>11</b>	Farm employee or family member
<b>1</b>	Private IPM scout/consultant
<b>4</b>	University/Extension scout
<b>20</b>	No one
<b>3</b>	Other

**Question H8.** How important are these sources of information in making your pest management decisions? (please circle your answers)

<b>Information Sources</b>	<b>Rank</b>	<b>Score*</b>
Other growers	<b>1</b>	<b>422</b>
Twilight meetings, field days	<b>2</b>	<b>416</b>
Extension newsletters and/or pest alerts	<b>3</b>	<b>396</b>
Off season educational meetings	<b>4</b>	<b>394</b>
University/Extension staff	<b>5</b>	<b>382</b>
Trade publications	<b>6</b>	<b>308</b>
Suppliers/dealers	<b>7</b>	<b>336</b>
Web sites	<b>8</b>	<b>164</b>
Private consultants	<b>9</b>	<b>74</b>

**Question H7.** How would you describe your crop production practices? (please circle your answer)

<b>Crop Production</b>	<b>%Growers</b>
Conventional	<b>57</b>
IPM	<b>27</b>
Organic	<b>7</b>
Other	<b>11</b>

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