

# Orchard Radar 2005

## Web traffic report

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### Introduction:

With funding from the Northeastern IPM Center, twice-daily updates of hourly weather observations and forecast values were purchased for the 2005 growing season for 15 sites in New England. Data for four additional sites in New York and New Brunswick, Canada were purchased by Cornell University and Agriculture Canada. The weather data were processed and published as web page tables and charts that displayed estimates of apple pest activity, expected end of protection from pesticide by application date, and weather variables (temperature, rain, wind speed, leaf wetness, relative humidity, solar radiation.) The system that processes and publishes the web pages is called "Orchard Radar".

As per agreement with the weather vendor (Zedx Inc., Boalsburg PA), links to the Orchard Radar sites for the New England locations were made available for public use. Those locations were:

CT - Middlefield, Woodstock

MA – Belchertown, South Deerfield, Waltham, Wareham

ME – Sanford, Gorham, Monmouth, Old Town

NH – Durham, North Hollis

RI – Greenville, Middletown

Links to the New York and New Brunswick sites were for not made public so that access was limited to the office that purchased them. Links to the Burlington Vermont site were not publicly distributed as per wishes of the Vermont Extension IPM program.

The sites went online April 29 and were updated twice daily until October 7, 2005. The ME-Monmouth and ME-Sanford sites have been operated each year since 1997. Rhode Island sites were previously operated 1997-1999 and 2002-2004. For Connecticut, Massachusetts, and New Hampshire, sites were previously operated 1997-1999 and 2004. To varying extent, availability of the sites was publicized in 2005 Extension tree fruit newsletters in each state.

Each site consisted of the same 64 tables and charts. In some cases, essentially the same information was presented in table and a chart form. For web traffic analysis, individual pages were sorted into categories as follows:

Weather:

Charts – Hourly weather forecast; 32-day temperature; 32-day rain.

Tables – Hourly forecast values (coming week); Hourly observation values (past week); April, May, June, July, August, September weather; April, May, June, July, August, September degree days.

Apple scab:

Charts – Daily infection period ratings; Primary scab infection potential; Primary scab lesion dates; Scab ascospore maturity.

Tables – Daily infection period ratings; Scab ascospore maturity; Primary infection period details; Primary and secondary infection period summary; Surface fungicide protection; Strobilurin fungicide protection; Sulfur fungicide protection; Surface fungicide protection in low-risk blocks; Strobilurin fungicide protection in low-risk blocks; Secondary scab fungicide protection.

Fire blight:

Charts – CougarBlight model.

Tables – CougarBlight model; MaryBlyt model.

Flyspeck: Tables – Group A, B, and C fungicide depletion for June, July and August.

Apple maggot: Tables – Apple maggot July and August insecticide depletion.

Codling moth: Tables – Codling moth June, July, August egg hatch and insecticide depletion.

Plum curculio:

Charts – Insecticide depletion; Activity rating.

Tables – Insecticide depletion.

Other Insects and Mites:

Tables – Key lifestage dates (codling moth, dogwood borer, lesser appleworm, mullein plant bug, obliquebanded leafroller, oriental fruit moth, plum curculio, redbanded leafroller, roundheaded apple tree borer, spotted tentiform leafminer, tarnished plant bug, white apple leafhopper); European red mite (ERM) key dates; ERM June, July, and August sampling intervals.

Horticulture:

Charts – Weather influence on chemical thinners.

Tables – Weather influence on chemical thinners; Weather influence on Storability, Drop, Color, and Scald risk; McIntosh budstage dates; McIntosh harvest dates.

Calendar: Tables – Early season management dates, Late season management dates.

**Methods:**

Web traffic reports are easily misunderstood. The number of “Hits” is much less meaningful than “Page Views.” “Hits” is a count of total file transfers, including every little graphic on every page. A single user visiting a page one time can generate many hits. Another factor that inflates reported web traffic is visits to a site by computers running automatically, not by a person using a web browser. This inflation by computer-generated visits can account for more than 30% of overall traffic.

This analysis done on web server log files for April 13 – October 7, 2005. To the extent possible, all computer-generated traffic (e.g. search engine indexers and other “web bots,” “spiders,” and “crawlers”) was eliminated from the web log files prior to analysis. Doing this may have also removed records for some valid human visits, but the percentage of inadvertently excluded human traffic appeared to be less than 2% of the total. Even with the filtering, some portion of the remaining traffic may still have been generated by computers programs written to appear as human operated web browsers. Presumably, this portion is well below 1%.

To estimate the frequency of page views by category, an attempt was made to focus on use by apple growers who presumably were more likely to connect to Orchard Radar pages directly. The category frequencies for pages viewed by all “direct users” for five individual sites in CT, MA, ME, NH and RI were tabulated. To identify “direct users,” visits that originated from external pages, (such as a Google search results page) were excluded. Visitors who arrived by clicking on a link in an online newsletter, or by first going to the PRONewEngland.org web site where links to each site’s directory page are listed, were also excluded as a referred visit. For the Orchard Radar sites overall, this filtering removes 62% of visitor sessions.

Using this filtering no doubt excluded many visits by growers also. However, as the intent was qualitative, not quantitative, analysis, this loss of traffic was considered acceptable. The filtering limited this analysis to only those visitors who arrived directly at a single site directory page or one of its subsidiary pages, such as would be the case for someone using a stored link (i.e. a ‘Favorite’ in Microsoft Internet Explorer) or by typing in a link mentioned in a hard copy newsletter. Presumably, this group of visitors has a higher level of interest in Orchard Radar and is more likely to be apple growers. Whether they are growers or not, it is useful to measure how the most interested visitors use the pages available.

## Results and Discussion:

### Overall statistics for all 19 sites (including the non-public sites)

7,238 visitor sessions.

24,889 page views.

3,634 unique visitors. 501 of whom visited more than once, 176 visited five or more times, and 78 visited ten or more times.

Average of 2.0 sessions per unique visitor.

Average of 6.8 page views per unique visitor.

Tabulation of the filtered group of “direct” visitor sessions found very similar frequency distributions for categories of pages viewed at the most heavily used site in each state (Table 1 and Figure 1). The frequency distributions for categories of pages viewed were very similar whether visitors who arrived at the sites directly or from a link on a reference page such as a Google search listing (Table 1 and Table 2).

<b>All Disease</b>	<b>37.8%</b>
<b>Weather</b>	<b>30.8%</b>
<b>All arthropod</b>	<b>13.2%</b>
<b>Scab</b>	<b>28.2%</b>
<b>Flyspeck</b>	<b>5.6%</b>
<b>Fire blight</b>	<b>4.0%</b>
<b>Other arthropods (includes apple maggot @ 2.5% and codling moth @ 2.4%)</b>	<b>8.4%</b>
<b>Plum curculio</b>	<b>4.8%</b>
<b>Calendar</b>	<b>6.3%</b>
<b>Horticulture</b>	<b>5.0%</b>

Table 1. Distribution of page views by direct visitor sessions to Orchard Radar pages by category, average values for five sites in 2005.

<b>All Disease</b>	<b>36.0%</b>
<b>Weather</b>	<b>32.8%</b>
<b>All arthropods</b>	<b>12.1%</b>
<b>Scab</b>	<b>26.1%</b>
<b>Flyspeck</b>	<b>5.6%</b>
<b>Fire blight</b>	<b>4.3%</b>
<b>Plum curculio</b>	<b>4.2%</b>
<b>Other arthropods (includes codling moth &amp; apple maggot)</b>	<b>7.9%</b>
<b>Calendar</b>	<b>6.8%</b>
<b>Horticulture</b>	<b>5.3%</b>

Table 2. Distribution of page views by referred and direct visitor sessions to Orchard Radar pages by category, average values for five sites in 2005.

### Page View Frequency by Topic - Orchard Radar 2005

5 New England Sites (CT-Middlefield, MA-Belchertown, ME-Monmouth, NH-Durham, RI-Greenville)  
 Only direct entry visitors counted (Google referrals etc. not counted)

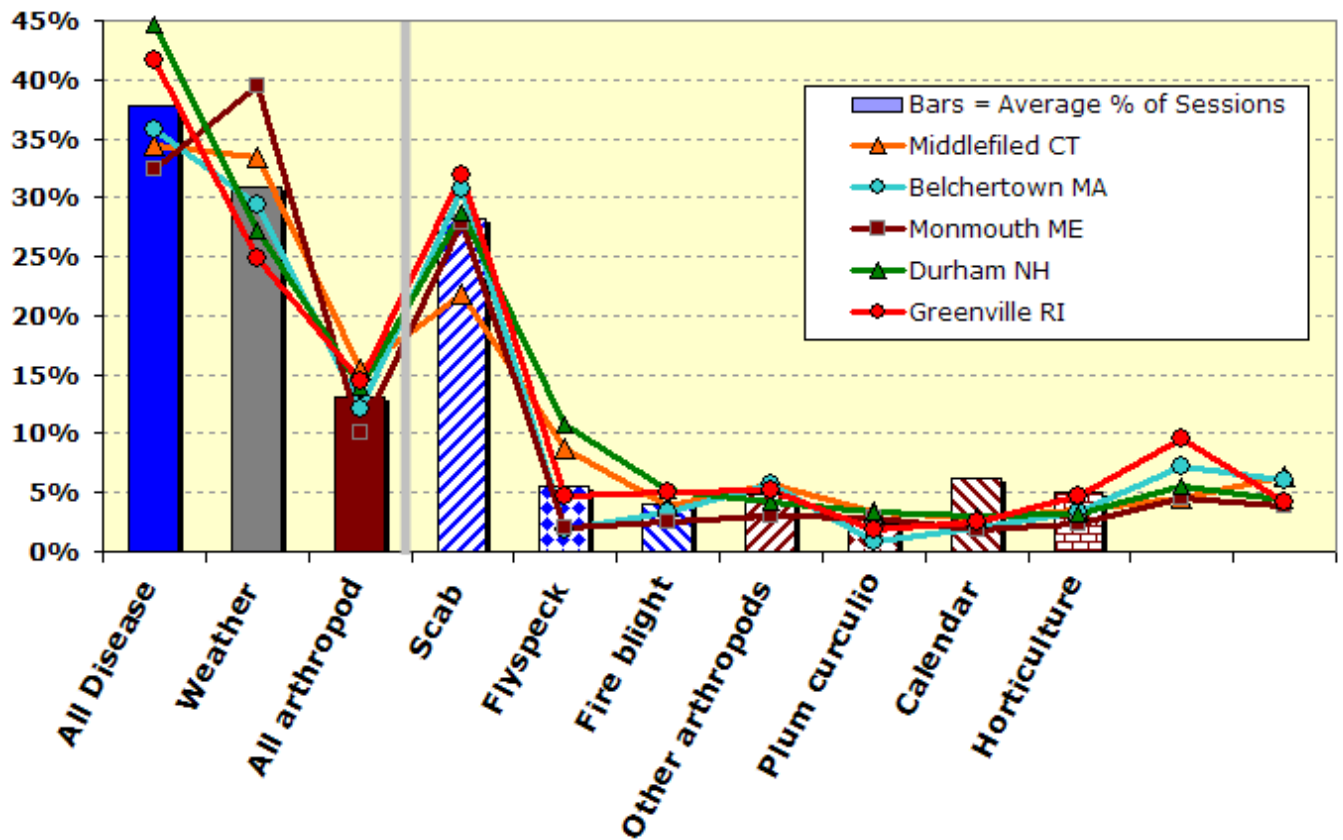


Figure 1. Distribution of direct visitor sessions to Orchard Radar pages by category for five individual sites.

To measure quantitative differences in use of Orchard Radar for sites in the five states, use statistics were segregated so that sites in each state were analyzed as separate groups. Results are shown on a per site basis to correct for the fact that there were four sites per state in MA and ME, and two per state in CT, NH, and RI (Figures 2 and 3).

The Maine sites had the highest number of page views per site, the highest number of page views per unique visitors, and the second highest number of visitor sessions per site (Figures 2 and 3).

### "Visitor Sessions per Site" and "Page Views per Site" - Orchard Radar 2005

For 12 Sites in Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island

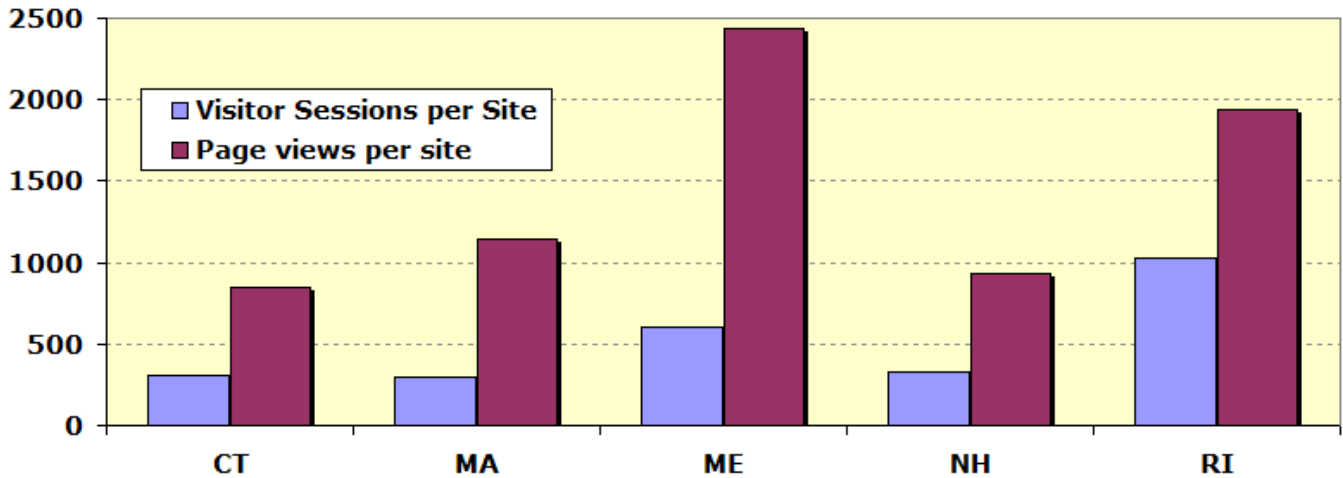


Figure 2. Number of visitor sessions and page views per site for five individual Orchard Radar sites in 2005.

While non-orchardist visitors could account for much of the Orchard Radar traffic, the visitor sessions and page view counts do not correlate with state population. Nor do they correlate with the number of apple growers in each state. For example, Massachusetts has more than four times as many citizens as Maine (6.2 million versus 1.3 million) and about the same number of growers (338 vs. 374, 2002 Census of Agriculture, USDA) but less than half as many Orchard Radar visitor sessions per site and page views per site (Figure 2).

### "Page Views per Unique Visitor" - Orchard Radar 2005

For 12 Sites in Connecticut, Maine, Massachusetts, New Hampshire, and Rhode Island

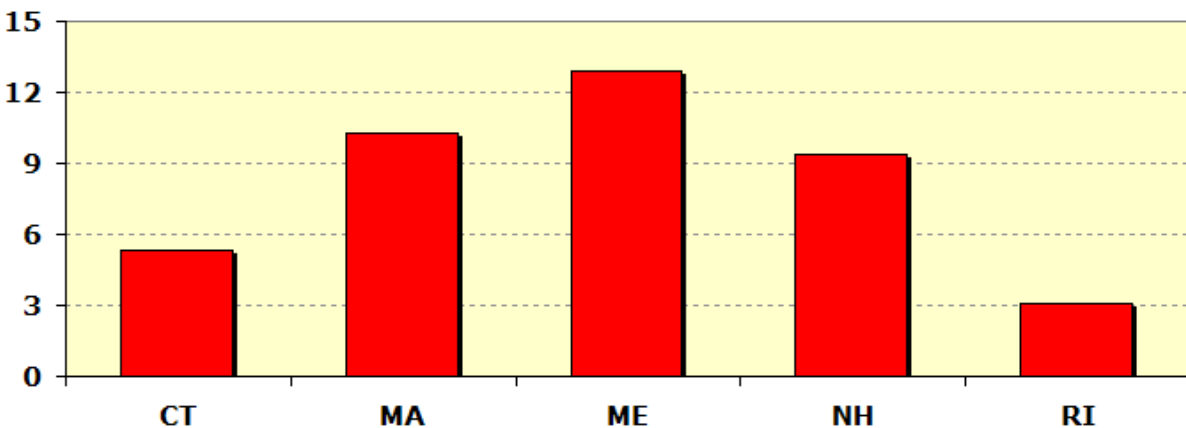


Figure 3. Number of page views per unique visitor (each presumably being an individual person) for Orchard Radar sites five New England states in 2005.

Rhode Island has a lower population than Maine (1 million vs. 1.3 million), and far fewer apple growers (58 vs. 374, 2002 Census of Agriculture, USDA). The number of visitor sessions per site in Rhode Island was the highest of the five states. The number of page views per site was second to Maine.

The number of page views per unique visitor to the Rhode Island sites was much lower than in the other five states (Figure 3). The reason for this is not clear. One guess was that it was caused by wider publicity for those sites resulting in non-orchardists accessing Orchard Radar to check a single weather page, but with little interest in the other pages. However, the distribution of visitor sessions for Rhode Island Greenville site (Figure 1) shows that weather-related pages accounted for a lower portion of visitor sessions for that site than for the individual sites in the other states. Even though the overall page views per visitor session was low for the Rhode Island sites, there were 30 unique users who visited five or more times between April 28 and October 7, and 15 who visited ten or more times. The USDA 2002 Census of Agriculture recorded 58 apple farms in Rhode Island, and based on Maine observations, the census number of growers is much higher than the actual number of farms making substantial income from apples.

## **Conclusions:**

Using web pages to inform orchard management decisions requires grower familiarity with the resources available and confidence in how to use them. Orchard Radar has been operated for Maine sites for more years and without interruption since 1997, and presumably been more frequently mentioned in newsletter articles and presentations to Maine apple growers than in the other four states.

It seems that increased grower awareness and familiarity with web-based decision support for orchard management decisions is the reason for the higher level of overall use, and for greater number of page views per unique visitor for the Maine sites. This suggests that growers are more likely to use web-based tools for orchard decision support if those tools are frequently discussed and explained in grower contacts, Extension newsletters, and presentations. In short, the more growers know about it, the more likely they are to use web-based decision support for orchard management.

The frequency distribution for categories of pages viewed was similar between states with presumably different levels of grower awareness and familiarity with Orchard Radar. Frequency distributions were also similar for visitors who arrived at Orchard Radar pages directly and those who arrived via a link on a reference page, such as a listing of links generated by a Google search.

Prior to this analysis, one concern was that a majority of the web traffic to the Orchard Radar sites was by people searching the web for a weather report, and with no interest in apple orchard management. This concern is contradicted by the web traffic statistics showing that weather pages account for less than a third of the page views, and by frequency distributions for categories of page views that matches what would be expected for apple growers making pesticide application and other orchard management decisions.

In absolute terms, the number of visitor sessions and page views for the Orchard Radar sites, and for the Maine sites in particular, suggests that if web-based decision support is provided and made familiar, growers will use it. However, web traffic statistics do not identify growers from other web users. Grower surveys are required to assess the use of Orchard Radar by commercial orchardists and the impact of such information on decision-making and agricultural practices.

A thorough Dillman method survey of New England apple growers was conducted in 2004 by the New England Pest Management Network. The survey methodology included mailings to every name on Extension apple grower mailing lists for each New England state, and repeat mailings to persons who did not respond to the initial request. The overall response rate was over 50%, making it perhaps the most complete survey of its kind ever done. Responses were received from 155 growers in the five New England states that had publicly available Orchard Radar sites in 2005 (personal communication, Natalia Clifton, University of Massachusetts).

The website traffic analysis found 176 visitors who each used Orchard Radar five or more times between April 29 and October 7, 2005, and 78 visitors who used it ten or more times in that period. This suggests the possibility that a significant portion of the apple growers in New England found such decision support tools worth using.

On the other hand, only 21% of respondents to that survey reported they made "Use of pest forecast and tracking models and equipment to determine need or adjust timing for sampling or control measures." The survey was conducted prior to the 2005 growing season covered by this analysis. However, Orchard Radar models were available for some sites in those states during the 2004 growing season, though it is not clear how well that fact was advertised. The wording of the question may have caused some growers who did use Orchard Radar to answer no to the question because they do not themselves operate equipment for pest forecasting, or they may not have considered going to a website as counting for a yes answer. In any case, the minority of growers who answered yes to that question indicates that there is untapped potential to increase the number of apple growers using pest forecasts as a tool for orchard management decisions.

**Addenda: Web traffic for sites by state for Connecticut, Massachusetts, Maine, New Hampshire, and Rhode Island.**

The same filtering out of automated computer-generated visitor sessions as described above was used for these individual state analyses.

**Connecticut 2005 – Two sites: Middlefield and Woodstock.**

621 visitor sessions. 1,690 page views.  
(=310 visitor sessions and 845 page views per site).  
316 unique visitors. 63 visited more than once,  
19 visited five+ times, 7 visited ten+ times.  
Average of 2.0 sessions per unique visitor.  
Average of 5.3 page views per unique visitor.

The Middlefield site was used more than the Woodstock site. Of direct access users to the Middlefield site, frequencies of categories for pages viewed were:

Weather	33.38%
Scab	21.85%
Calendar	4.57%
Plum curculio	5.66%
Other Insect & Mite	3.59%
Flyspeck	8.78%
Horticulture	6.30%
Fire blight	3.80%
Codling moth	3.37%
Apple maggot	2.82%

Top 20 pages account for 44% of total page views:

<b>Most Requested Pages</b>					
	<b>Pages</b>	<b>Views</b>	<b>% of Total Views</b>	<b>Visitor Sessions</b>	<b>Avg. Time Viewed</b>
1	<b>Orchard Radar directory for Middlefield CT</b> <a href="http://pronewengland.org/content/AllModels/CTmodel/RADARCT-Middlefield.htm">http://pronewengland.org/content/AllModels/CTmodel/RADARCT-Middlefield.htm</a>	239	14.14%	215	00:01:49
2	<b>Orchard Radar directory for Woodstock CT</b> <a href="http://pronewengland.org/content/AllModels/CTmodel/RADARCT-Woodstock.htm">http://pronewengland.org/content/AllModels/CTmodel/RADARCT-Woodstock.htm</a>	101	5.97%	94	00:01:09
3	<a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-HourChart.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-HourChart.htm</a>	40	2.36%	38	00:02:07
4	<b>September weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataSeptember.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataSeptember.htm</a>	33	1.95%	30	00:03:46
5	<b>June weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataJune.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataJune.htm</a>	31	1.83%	29	00:03:12
6	<a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-TempChart.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-TempChart.htm</a>	23	1.36%	23	00:05:21
7	<b>Orchard management: Synopsis of key early season dates</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-CalendarEarly.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-CalendarEarly.htm</a>	23	1.36%	23	00:02:13
8	<b>July weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataJuly.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataJuly.htm</a>	25	1.47%	22	00:00:31
9	<b>Orchard management: Synopsis of key early season dates</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Woodstock-CalendarEarly.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Woodstock-CalendarEarly.htm</a>	22	1.3%	22	00:01:52
10	<b>August weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataAugust.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataAugust.htm</a>	22	1.3%	20	00:04:11
11	<a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-RainChart.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-RainChart.htm</a>	20	1.18%	19	00:03:23
12	<b>Plum curculio protection period</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-PCTable.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-PCTable.htm</a>	19	1.12%	19	00:03:21
13	<a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-HourForecast.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-HourForecast.htm</a>	19	1.12%	19	00:01:25
14	<b>April weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataApril.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataApril.htm</a>	19	1.12%	19	00:02:27
15	<a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ScabDates.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ScabDates.htm</a>	18	1.06%	18	00:01:54
16	<b>May weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataMay.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ShowdataMay.htm</a>	19	1.12%	18	00:03:56
17	<a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-PCDepletionChart.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-PCDepletionChart.htm</a>	18	1.06%	18	00:02:12
18	<a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ScabLesionChart.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ScabLesionChart.htm</a>	20	1.18%	18	00:04:54
19	<b>June degree days</b> <a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-CumDDJune.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-CumDDJune.htm</a>	20	1.18%	17	00:02:02
20	<a href="http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ThinChart.htm">http://pronewengland.org/content/AllModels/ctmodel/ct-Middlefield-ThinChart.htm</a>	20	1.18%	17	00:04:04

**Massachusetts 2005 – Four sites: Belchertown, South Deerfield, Waltham, Wareham.**

1,188 visitor sessions. 4,576 page views.  
(=396 visitor sessions and 1,525 page views per site).  
445 unique visitors. 72 visited more than once,  
24 visited five+ times, 14 visited ten+ times.  
Average of 2.7 sessions per unique visitor.  
Average of 10.3 page views per unique visitor.

The Belchertown site was used more than the other Massachusetts sites. Of direct access users to the Belchertown site, frequencies of categories for pages viewed were:

Weather	29.36%
Scab	30.71%
Calendar	7.24%
Plum curculio	5.79%
Other Insect & Mite	3.43%
Flyspeck	1.80%
Horticulture	6.06%
Fire blight	3.33%
Codling moth	0.81%
Apple maggot	1.98%

Top 20 pages account for 38% of total page views:

<b>Most Requested Pages</b>					
	<b>Pages</b>	<b>Views</b>	<b>% of Total Views</b>	<b>Visitor Sessions</b>	<b>Avg. Time Viewed</b>
1	<b>Orchard Radar directory for Belchertown MA</b> <a href="http://pronewengland.org/content/AllModels/Mamodel/RadarMa-belchertown.htm">http://pronewengland.org/content/AllModels/Mamodel/RadarMa-belchertown.htm</a>	373	8.15%	305	00:00:39
2	<b>Orchard Radar directory for South Deerfield MA</b> <a href="http://pronewengland.org/Content/AllModels/Mamodel/RADARMA-SouthDeerfield.htm">http://pronewengland.org/Content/AllModels/Mamodel/RADARMA-SouthDeerfield.htm</a>	351	7.67%	178	00:00:22
3	<b>Orchard Radar directory for Waltham MA</b> <a href="http://pronewengland.org/content/AllModels/Mamodel/RadarMa-Waltham.htm">http://pronewengland.org/content/AllModels/Mamodel/RadarMa-Waltham.htm</a>	181	3.95%	151	00:01:05
4	<a href="http://pronewengland.org/content/allmodels/Mamodel/MA-SouthDeerfield-HourChart.htm">http://pronewengland.org/content/allmodels/Mamodel/MA-SouthDeerfield-HourChart.htm</a>	109	2.38%	107	00:01:13
5	<a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-HourForecast.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-HourForecast.htm</a>	109	2.38%	98	00:01:34
6	<a href="http://pronewengland.org/Content/AllModels/mamodel/ma-SouthDeerfield-HourForecast.htm">http://pronewengland.org/Content/AllModels/mamodel/ma-SouthDeerfield-HourForecast.htm</a>	81	1.77%	76	00:01:13
7	<a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ScabInfectionPeriodChart.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ScabInfectionPeriodChart.htm</a>	54	1.18%	47	00:00:46
8	<a href="http://pronewengland.org/Content/AllModels/mamodel/ma-SouthDeerfield-ScabPotentialChart.htm">http://pronewengland.org/Content/AllModels/mamodel/ma-SouthDeerfield-ScabPotentialChart.htm</a>	48	1.04%	47	00:00:56
9	<b>June weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ShowdataJune.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ShowdataJune.htm</a>	50	1.09%	47	00:04:14
10	<b>July weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ShowdataJuly.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ShowdataJuly.htm</a>	47	1.02%	42	00:00:36
11	<a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-HourChart.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-HourChart.htm</a>	41	0.89%	40	00:02:22
12	<b>Orchard management: Synopsis of key early season dates</b> <a href="http://pronewengland.org/content/allmodels/mamodel/ma-Belchertown-CalendarEarly.htm">http://pronewengland.org/content/allmodels/mamodel/ma-Belchertown-CalendarEarly.htm</a>	44	0.96%	40	00:02:15
13	<a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ScabPotentialChart.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ScabPotentialChart.htm</a>	40	0.87%	38	00:00:40
14	<a href="http://pronewengland.org/Content/AllModels/mamodel/ma-SouthDeerfield-PCRateChart.htm">http://pronewengland.org/Content/AllModels/mamodel/ma-SouthDeerfield-PCRateChart.htm</a>	34	0.74%	33	00:00:50
15	<b>Orchard Radar directory for Wareham MA</b> <a href="http://pronewengland.org/content/AllModels/Mamodel/RadarMa-Wareham.htm">http://pronewengland.org/content/AllModels/Mamodel/RadarMa-Wareham.htm</a>	33	0.72%	32	00:01:59
16	<b>August weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ShowdataAugust.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ShowdataAugust.htm</a>	33	0.72%	31	00:02:40
17	<a href="http://pronewengland.org/content/AllModels/mamodel/ma-Waltham-ScabInfectionPeriodChart.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Waltham-ScabInfectionPeriodChart.htm</a>	32	0.69%	30	00:02:12
18	<a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ThinChart.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ThinChart.htm</a>	33	0.72%	29	00:01:52
19	<a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-PCRateChart.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-PCRateChart.htm</a>	28	0.61%	28	00:01:35
20	<a href="http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ScabDates.htm">http://pronewengland.org/content/AllModels/mamodel/ma-Belchertown-ScabDates.htm</a>	29	0.63%	27	00:02:

## Maine 2005 – Four sites: Sanford, Gorham, Monmouth, Old Town

2,399 visitor sessions. 9,729 page views.

(=600 visitor sessions and 2,432 page views per site).

757 unique visitors. 183 visited more than once,

58 visited five+ times, 29 visited ten+ times.

Average of 3.2 sessions per unique visitor.

Average of 12.9 page views per unique visitor.

The Monmouth site was used more than the other Maine sites. Of direct access users to the Monmouth site, frequencies of categories for pages viewed were:

Weather	39.47%
Scab	27.92%
Calendar	4.57%
Plum curculio	3.08%
Other Insect & Mite	2.40%
Flyspeck	2.03%
Horticulture	3.93%
Fire blight	2.51%
Codling moth	2.78%
Apple maggot	1.77%

Top 20 pages account for 38% of total page views:

Most Requested Pages					
	Pages	Views	% of Total Views	Visitor Sessions	Avg. Time Viewed
1	<b>Orchard Radar directory for Monmouth ME</b> <a href="http://pronewengland.org/content/AllModels/MEmodel/RadarME-monmouth.htm">http://pronewengland.org/content/AllModels/MEmodel/RadarME-monmouth.htm</a>	727	7.47%	662	00:00:33
2	<b>Orchard Radar directory for Sanford ME</b> <a href="http://pronewengland.org/content/AllModels/MEmodel/RadarME-sanford.htm">http://pronewengland.org/content/AllModels/MEmodel/RadarME-sanford.htm</a>	409	4.2%	371	00:00:26
3	<a href="http://pronewengland.org/content/AllModels/memodel/me-Monmouth-HourChart.htm">http://pronewengland.org/content/AllModels/memodel/me-Monmouth-HourChart.htm</a>	351	3.6%	334	00:01:31
4	<b>Orchard Radar directory for Old Town ME</b> <a href="http://pronewengland.org/Content/AllModels/MEmodel/RADARME-OldTown.htm">http://pronewengland.org/Content/AllModels/MEmodel/RADARME-OldTown.htm</a>	327	3.36%	287	00:01:18
5	<b>Orchard Radar directory for Gorham ME</b> <a href="http://pronewengland.org/Content/AllModels/MEmodel/RADARME-Gorham.htm">http://pronewengland.org/Content/AllModels/MEmodel/RADARME-Gorham.htm</a>	257	2.64%	230	00:01:43
6	<a href="http://pronewengland.org/content/AllModels/memodel/me-Sanford-HourChart.htm">http://pronewengland.org/content/AllModels/memodel/me-Sanford-HourChart.htm</a>	228	2.34%	219	00:01:11
7	<a href="http://pronewengland.org/content/AllModels/memodel/me-Monmouth-HourForecast.htm">http://pronewengland.org/content/AllModels/memodel/me-Monmouth-HourForecast.htm</a>	216	2.22%	186	00:02:25
8	<a href="http://pronewengland.org/content/AllModels/memodel/me-Monmouth-RainChart.htm">http://pronewengland.org/content/AllModels/memodel/me-Monmouth-RainChart.htm</a>	164	1.68%	158	00:01:03
9	<a href="http://pronewengland.org/content/AllModels/memodel/me-Monmouth-ScabPotentialChart.htm">http://pronewengland.org/content/AllModels/memodel/me-Monmouth-ScabPotentialChart.htm</a>	122	1.25%	118	00:01:41
10	<a href="http://pronewengland.org/Content/AllModels/memodel/me-OldTown-HourChart.htm">http://pronewengland.org/Content/AllModels/memodel/me-OldTown-HourChart.htm</a>	145	1.49%	114	00:03:05
11	<a href="http://pronewengland.org/content/AllModels/memodel/me-Monmouth-ScabInfectionPeriodChart.htm">http://pronewengland.org/content/AllModels/memodel/me-Monmouth-ScabInfectionPeriodChart.htm</a>	107	1.09%	105	00:00:54
12	<a href="http://pronewengland.org/Content/AllModels/memodel/me-OldTown-HourForecast.htm">http://pronewengland.org/Content/AllModels/memodel/me-OldTown-HourForecast.htm</a>	102	1.04%	102	00:04:04
13	<a href="http://pronewengland.org/content/AllModels/memodel/me-Monmouth-TempChart.htm">http://pronewengland.org/content/AllModels/memodel/me-Monmouth-TempChart.htm</a>	86	0.88%	83	00:02:11
14	<a href="http://pronewengland.org/content/AllModels/memodel/me-Sanford-HourForecast.htm">http://pronewengland.org/content/AllModels/memodel/me-Sanford-HourForecast.htm</a>	88	0.9%	81	00:02:06
15	<b>'Surface fungicide' Respray Dates for Scab Suppression</b> <a href="http://pronewengland.org/content/AllModels/memodel/me-Sanford-ScabSprayContact.htm">http://pronewengland.org/content/AllModels/memodel/me-Sanford-ScabSprayContact.htm</a>	82	0.84%	77	00:02:08
16	<a href="http://pronewengland.org/content/AllModels/memodel/me-OldTown-ScabInfectionPeriodChart.htm">http://pronewengland.org/content/AllModels/memodel/me-OldTown-ScabInfectionPeriodChart.htm</a>	83	0.85%	77	00:02:31
17	<b>Strobilurin fungicide Respray Dates for Scab Suppression</b> <a href="http://pronewengland.org/content/AllModels/memodel/me-Sanford-ScabSprayStrobilurin.htm">http://pronewengland.org/content/AllModels/memodel/me-Sanford-ScabSprayStrobilurin.htm</a>	75	0.77%	71	00:01:35
18	<b>Apple scab: primary infection period details</b> <a href="http://pronewengland.org/content/AllModels/memodel/me-Monmouth-ScabPrimaryInfPerDetail.htm">http://pronewengland.org/content/AllModels/memodel/me-Monmouth-ScabPrimaryInfPerDetail.htm</a>	69	0.7%	59	00:01:30
19	<a href="http://pronewengland.org/content/AllModels/memodel/me-Monmouth-ScabLesionChart.htm">http://pronewengland.org/content/AllModels/memodel/me-Monmouth-ScabLesionChart.htm</a>	57	0.58%	53	00:02:15
20	<a href="http://pronewengland.org/content/AllModels/memodel/me-OldTown-ScabPotentialChart.htm">http://pronewengland.org/content/AllModels/memodel/me-OldTown-ScabPotentialChart.htm</a>	55	0.56%	53	00:03:19

## New Hampshire 2005 – Two sites: Durham, North Hollis

666 visitor sessions. 1,875 page views,  
(=333 visitor sessions and 938 page views per site).  
200 unique visitors. 72 visited more than once,  
17 visited five+ time, 11 visited ten+ times.  
Average of 3.3 sessions per unique visitor.  
Average of 9.4 page views per unique visitor.

The Durham site was used more than the North Hollis site. Of direct access users to the Durham site, frequencies of categories for pages viewed were:

Weather	27.12%
Scab	28.71%
Calendar	5.56%
Plum curculio	4.26%
Other Insect & Mite	3.22%
Flyspeck	10.82%
Horticulture	4.38%
Fire blight	5.16%
Codling moth	3.35%
Apple maggot	3.09%

Top 20 pages account for 35% of total page views:

Most Requested Pages					
	Pages	Views	% of Total Views	Visitor Sessions	Avg. Time Viewed
1	<b>Orchard Radar directory for North Hollis NH</b> <a href="http://pronewengland.org/content/AllModels/nhmodel/Radarnh-NorthHollis.htm">http://pronewengland.org/content/AllModels/nhmodel/Radarnh-NorthHollis.htm</a>	149	7.94%	135	00:00:47
2	<b>Orchard Radar directory for Durham NH</b> <a href="http://pronewengland.org/content/AllModels/nhmodel/Radarnh-Durham.htm">http://pronewengland.org/content/AllModels/nhmodel/Radarnh-Durham.htm</a>	138	7.36%	122	00:00:55
3	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabInfectionPeriodChart.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabInfectionPeriodChart.htm</a>	27	1.44%	27	00:00:59
4	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-HourChart.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-HourChart.htm</a>	28	1.49%	27	00:00:49
5	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-ScabInfectionPeriodChart.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-ScabInfectionPeriodChart.htm</a>	22	1.17%	22	00:01:07
6	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabDates.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabDates.htm</a>	23	1.22%	21	00:01:48
7	<b>'Surface fungicide' Respray Dates for Scab Suppression</b> <a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabSprayContact.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabSprayContact.htm</a>	21	1.12%	21	00:01:10
8	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-TempChart.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-TempChart.htm</a>	21	1.12%	21	00:01:17
9	<a href="http://pronewengland.org/content/allmodels/nhmodel/nh-Durham-HourChart.htm">http://pronewengland.org/content/allmodels/nhmodel/nh-Durham-HourChart.htm</a>	22	1.17%	20	00:01:00
10	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-ScabDates.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-ScabDates.htm</a>	20	1.06%	19	00:01:28
11	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabPotentialChart.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabPotentialChart.htm</a>	18	0.96%	18	00:00:38
12	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabLesionChart.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabLesionChart.htm</a>	19	1.01%	17	00:00:25
13	<b>Orchard management: Synopsis of key early season dates</b> <a href="http://pronewengland.org/content/allmodels/nhmodel/nh-Durham-CalendarEarly.htm">http://pronewengland.org/content/allmodels/nhmodel/nh-Durham-CalendarEarly.htm</a>	17	0.9%	16	00:01:51
14	<b>Orchard management: Synopsis of key late season dates</b> <a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-CalendarLate.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-CalendarLate.htm</a>	17	0.9%	16	00:03:05
15	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-RainChart.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-RainChart.htm</a>	18	0.96%	16	00:06:49
16	<b>Apple scab: primary infection period details</b> <a href="http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-ScabPrimaryInfPerDetail.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-ScabPrimaryInfPerDetail.htm</a>	27	1.44%	16	00:00:51
17	<a href="http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-TempChart.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-NorthHollis-TempChart.htm</a>	15	0.8%	15	00:01:01
18	<a href="http://pronewengland.org/content/allmodels/nhmodel/nh-NorthHollis-RainChart.htm">http://pronewengland.org/content/allmodels/nhmodel/nh-NorthHollis-RainChart.htm</a>	15	0.8%	15	00:02:07
19	<a href="http://pronewengland.org/content/allmodels/nhmodel/nh-NorthHollis-HourObs.htm">http://pronewengland.org/content/allmodels/nhmodel/nh-NorthHollis-HourObs.htm</a>	15	0.8%	15	00:02:16
20	<b>Apple scab: primary infection period details</b> <a href="http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabPrimaryInfPerDetail.htm">http://pronewengland.org/content/AllModels/nhmodel/nh-Durham-ScabPrimaryInfPerDetail.htm</a>	16	0.85%	15	00:00:53

## Rhode Island 2005 – two sites: Greenville, Middletown

2,045 visitor sessions. 3,881 page views.

(=1,022 visitor sessions and 1,940 page views per site).

1,248 unique visitors. 138 visited more than once,

30 visited five+ times, 15 visited ten+ times.

Average of 1.6 sessions per unique visitor.

Average of 3.1 page views per unique visitor.

The Greenville site was used more than the Middletown site. Of direct access users to the Greenville site, frequencies of categories for pages viewed were:

Weather	24.81%
Scab	31.95%
Calendar	9.52%
Plum curculio	5.18%
Other Insect & Mite	4.76%
Flyspeck	4.66%
Horticulture	4.15%
Fire blight	5.01%
Codling moth	1.82%
Apple maggot	2.60%

Top 20 pages account for 41% of total page views:

Most Requested Pages					
	Pages	Views	% of Total Views	Visitor Sessions	Avg. Time Viewed
1	<b>Orchard Radar directory for Greenville, RI</b> <a href="http://pronewengland.org/content/AllModels/rimodel/RadarRI-greenville.htm">http://pronewengland.org/content/AllModels/rimodel/RadarRI-greenville.htm</a>	277	7.13%	252	00:01:08
2	<b>August weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-ShowdataAugust.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-ShowdataAugust.htm</a>	175	4.5%	169	00:02:13
3	<b>July weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-ShowdataJuly.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-ShowdataJuly.htm</a>	158	4.07%	141	00:01:33
4	<b>Orchard Radar directory for Middletown, RI</b> <a href="http://pronewengland.org/content/AllModels/rimodel/Radarri-Middletown.htm">http://pronewengland.org/content/AllModels/rimodel/Radarri-Middletown.htm</a>	131	3.37%	112	00:01:34
5	<b>September weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-ShowdataSeptember.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-ShowdataSeptember.htm</a>	94	2.42%	88	00:01:13
6	<b>July weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ShowdataJuly.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ShowdataJuly.htm</a>	92	2.37%	84	00:00:45
7	<b>August weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ShowdataAugust.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ShowdataAugust.htm</a>	74	1.9%	70	00:03:48
8	<b>Apple insect pest degree day models</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-InsectDates.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-InsectDates.htm</a>	62	1.59%	61	00:03:38
9	<b>June weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-ShowdataJune.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-ShowdataJune.htm</a>	60	1.54%	60	00:00:58
10	<b>Orchard management: Synopsis of key early season dates</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-CalendarEarly.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-CalendarEarly.htm</a>	79	2.03%	54	00:01:19
11	<b>Orchard management: Synopsis of key late season dates</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-CalendarLate.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-CalendarLate.htm</a>	58	1.49%	54	00:01:15
12	<a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-HourForecast.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-HourForecast.htm</a>	49	1.26%	48	00:02:28
13	<a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ScabInfectionPeriodChart.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ScabInfectionPeriodChart.htm</a>	43	1.1%	39	00:01:02
14	<b>'Surface fungicide' Respray Dates for Scab Suppression</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ScabSprayContact.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ScabSprayContact.htm</a>	43	1.1%	38	00:01:29
15	<b>June weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ShowdataJune.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ShowdataJune.htm</a>	36	0.92%	36	00:05:23
16	<b>September weather - estimated observations or forecast</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ShowdataSeptember.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ShowdataSeptember.htm</a>	39	1%	35	00:02:20
17	<b>Orchard management: Synopsis of key late season dates</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-CalendarLate.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Middletown-CalendarLate.htm</a>	36	0.92%	35	00:05:16
18	<b>Sulfur fungicide Respray Dates for Scab Suppression</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-NorthKingstown-ScabSpraySulfur.htm">http://pronewengland.org/content/AllModels/rimodel/ri-NorthKingstown-ScabSpraySulfur.htm</a>	37	0.95%	33	00:02:43
19	<b>Strobilurin fungicide Respray Dates for Low scab-risk blocks</b> <a href="http://pronewengland.org/content/AllModels/rimodel/ri-NorthKingstown-ScabSprayStrobilurinLowPAD.htm">http://pronewengland.org/content/AllModels/rimodel/ri-NorthKingstown-ScabSprayStrobilurinLowPAD.htm</a>	33	0.85%	31	00:05:02
20	<a href="http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ScabPotentialChart.htm">http://pronewengland.org/content/AllModels/rimodel/ri-Greenville-ScabPotentialChart.htm</a>	32	0.82%	31	00:01:05