

## R. solanacearum / Bacterial wilt dedicated website

6-month post-launch report, March 26 2009

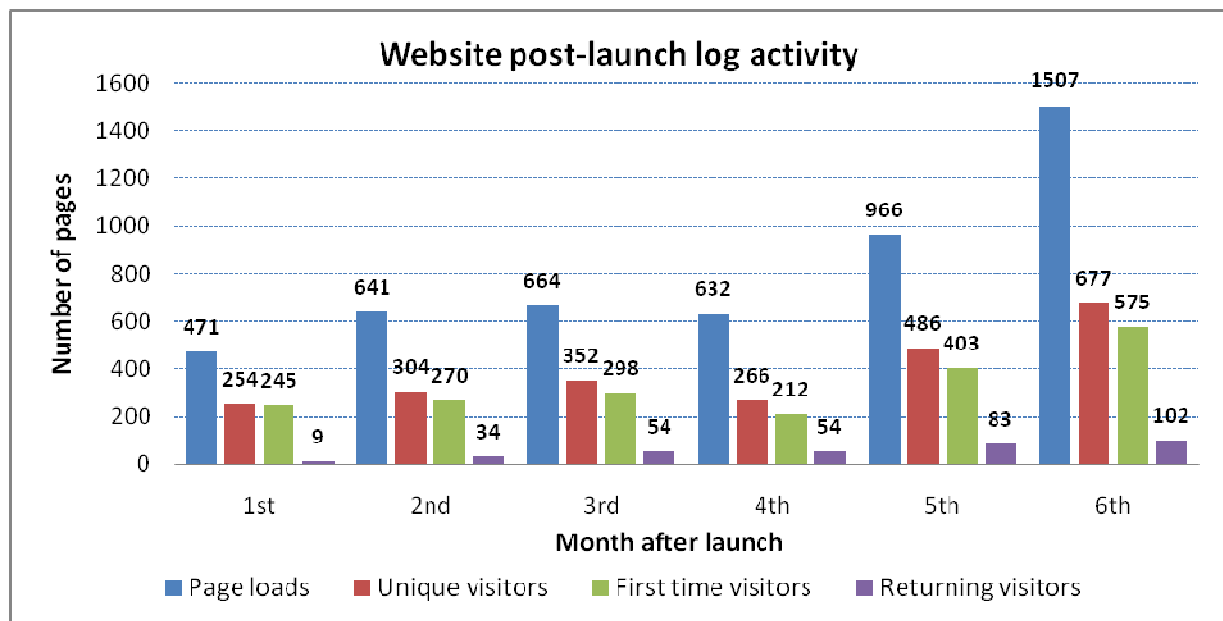
This synthetic report includes key results concerning the activity on our *R. solanacearum* / Bacterial wilt dedicated website six months after it was launched to the public (period from Sept. 12, 2008 – March 24, 2009). When interesting, data were compared to those obtained at one month after launch.

Activity on the website was monitored and analyzed using Statcounter. Statcounter is an invisible web tracker and highly configurable hit counter that provides real-time detailed web statistics. Read more at <http://www.statcounter.com/>.

**Note:** each page of the website (including PDF files and documents) is **monitored individually**. Log size is limited to 2000, meaning that log information is available for the last 2000 logs.

### ◆ Log activity

Log activity indicates the number of page loads, number and type of visitors (see below) on a daily basis and within a given period of time. So far, **2003 pages were visited by first time visitors**, corresponding to approximately **701 individual visitors**, as estimated by the number of returning visitors (see section below).



**Page Load** - The number of times pages have been visited.

**Unique Visitor** - Includes the total of the returning visitors and first time visitors - all your visitors.

**First Time Visitors** - Includes persons that are considered visiting a page for the first time.

**Returning Visitors** - Includes persons that are returning to a page for another visit an hour or more after first visit.

Data indicate increasing activity on our website over the past 6 months, with significant increase number of *Page loads* and *First time visitors* in the last 2 months. Number of *Returning visitors* has constantly increased from 1<sup>st</sup> month (9) to 6 months (102), indicating that individuals come back on the website after their first visit. This is good information about long-term interest of website visitors regarding accuracy of information provided, that is regularly updated.

## ◆ Popular pages

We can identify which pages are the most popular and visited on the website. This way we can know how many times our project pages have been visited, but we have no information on how long each page has been visited.

Our project “pest and disease information” pages represented almost 30% of total visited pages as shown in the table below. These data, combined with those of the *Downloads* section below indicate efficient delivery of our educational materials.

Page Type	Description	Percent of total visited pages
<b>Project modules</b>	R3bv2	23.5
	R3bv2 – Printer-friendly	0.5
	BR of potato	1.2
	BR of potato – Printer-friendly	0.6
	BW of tomato	3
	BW of tomato – Printer-friendly	0.15
	SW of geranium	0.6
	SW of geranium – Printer-friendly	0.35
	<b>Total</b>	<b>29.9</b>
<b>Project diverse pages</b>	<i>Ralstonia</i> culture media	5
	<i>Ralstonia</i> culture media – Printer-friendly	0.2
	Meeting abstracts	2.2
	Web resources	1.45
	Web resources – Printer-friendly	0.35
	Alert archives	0.75
	<b>Total</b>	<b>9.95</b>
<b>Photo gallery</b>	All pages	<b>4.7</b>
<b>USDA-NRI project</b>	All pages	<b>4.65</b>
<b><i>Ralstonia</i> Publications</b>	All pages	<b>1.75</b>
<b>Other pages</b>		<b>49.1</b>

## ◆ Visitor geographical origin

Visitor paths indicate where visitors are located in the world. This way we can monitor the origin of our target audience and evaluate the impact of our website in and outside the United States.

### ◆ In the US

Almost 40% of total visited website pages were visited from the United States (34 different states) during the past 6 months. Percent of visited pages and states of origin are indicated in the table below:

State	Number of visited pages	Percent of Total pages
Florida	319	15.9
Wisconsin	63	3.15
Texas	58	2.90
Georgia	49	2.45
California	38	1.90
Hawaii	38	1.90
Maryland	29	1.45
Pennsylvania	24	1.20
Massachusetts	22	1.10
Tennessee	19	0.95
Illinois	16	0.80
Missouri	15	0.75
North Carolina	14	0.70
New York	12	0.60
Virginia	11	0.55
Michigan	11	0.55
New Jersey	7	0.35
Colorado	7	0.35
Iowa	7	0.35
Minnesota	5	0.25
Louisiana	5	0.25
Oregon	4	0.20
Connecticut	4	0.20
Ohio	4	0.20
Kentucky	3	0.15
Oklahoma	3	0.15
South Carolina	3	0.15
South Dakota	2	0.10
Arkansas	1	0.05
Arizona	1	0.05
Maine	1	0.05
New Mexico	1	0.05
West Virginia	1	0.05
Washington	1	0.05
<b>United States</b>	<b>798</b>	<b>39.9</b>

Data indicate that most of southern and eastern states that are being or have been concerned by *R. solanacearum* or bacterial wilt diseases (Florida, Georgia, Hawaii, Pennsylvania, New-York) or are involved in regulation (Maryland) are states with the highest percent of visited pages. At the opposite, and with the exception of California, Michigan, and Wisconsin, percent of visited pages were very low in important potato-producing states where *R. solanacearum* race 3 biovar 2 could be a threat (Idaho, North Dakota, Washington, Maine, Minnesota, Colorado, and Oregon). Based on these results, efforts will have to be made to deliver our educational materials through the Central and Western Plant Boards.

◆ Outside the US

More than 60% of total visited website pages were visited from 69 identified countries around the world. Percent of visited pages and countries of origin are indicated in the table below.

Country	Number of visited pages	Percent of Total pages
<b>India</b>	208	10.4
<b>Philippines</b>	72	3.6
<b>China</b>	65	3.2
<b>Egypt</b>	64	3.2
<b>Costa Rica</b>	63	3.2
<b>Kenya</b>	45	2.2
<b>United Kingdom</b>	39	1.9
<b>Malaysia</b>	38	1.9
<b>South Africa</b>	34	1.7
<b>Turkey</b>	31	1.5
<b>Indonesia</b>	29	1.4
<b>Vietnam</b>	29	1.4
<b>Canada</b>	28	1.4
<b>Bulgaria</b>	27	1.3
<b>Serbia</b>	27	1.3
<b>Australia</b>	26	1.3
<b>Nigeria</b>	23	1.1
<b>Rwanda</b>	23	1.1
<b>Italy</b>	23	1.1
<b>Brazil</b>	20	1
<b>France, Iran, Thailand, Pakistan, Japan, Spain, Netherlands, Trinidad And Tobago, Ukraine, Bolivia, Jordan, Colombia, Korea, Sri Lanka, Mexico, Germany, Peru, Poland, Uganda, Belgium, Malta, Bangladesh, Saudi Arabia, Mauritius, Slovakia, Taiwan, Russian Federation, Ireland, New Zealand, Singapore, Hungary, Belize, Botswana, Israel, Bosnia And Herzegovina, Slovenia, Barbados, Greece, Switzerland, Georgia, Solomon Islands, Ethiopia, Lithuania, Burkina Faso, Iraq, Norway, Portugal, Palestinian Territory, Morocco</b>	228	Less than 1 for each country

These data show that two countries from where geranium cuttings are imported into the United States (Costa Rica and Kenya) belong to the ten first countries outside the US from where our website pages were most visited.

## ◆ Downloads

This indicates which documents were downloaded from the website (essentially PDF files). This way we can monitor and quantify the delivery of all documents available through the website.

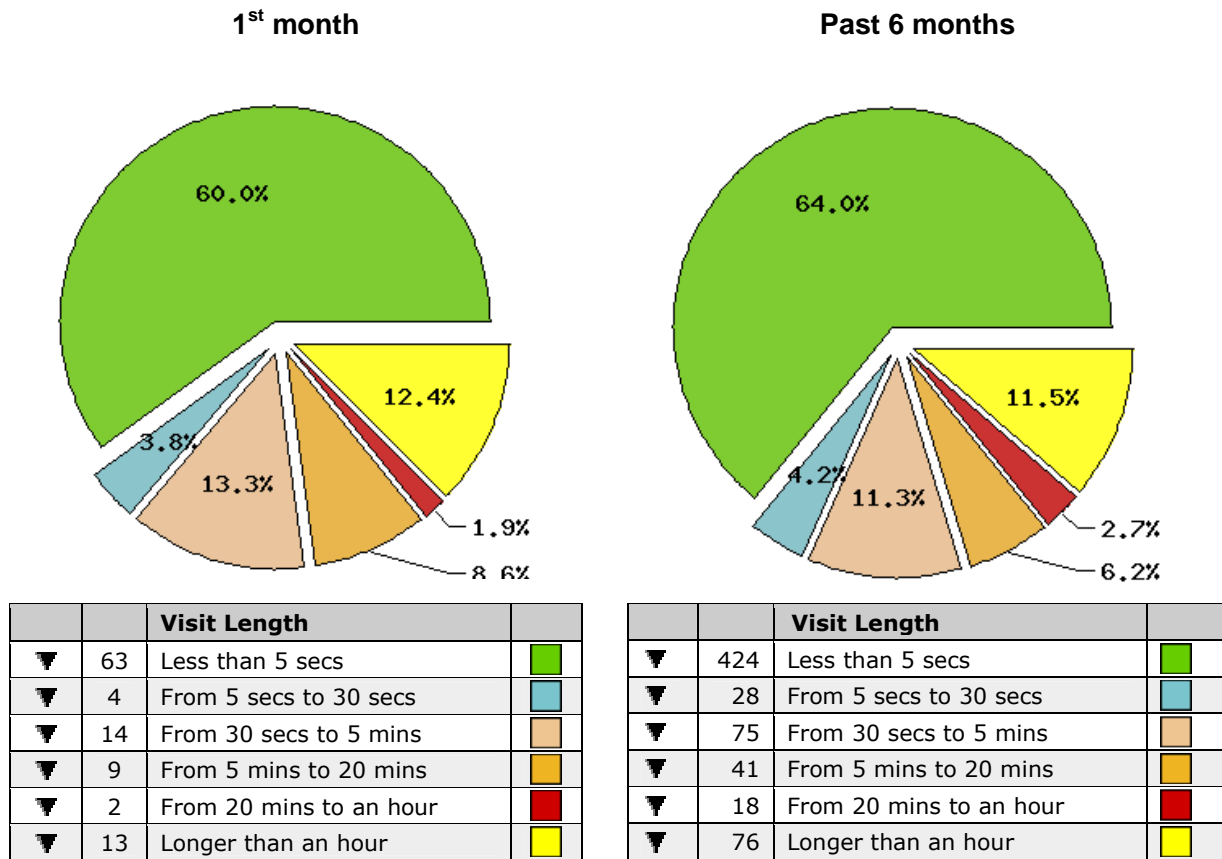
So far, **391** documents were downloaded from our website. Description and download counts are shown in the table below.

Document Type	Description	Downloads count Past 6 months
<b>Project diverse pages</b>	<i>Ralstonia</i> culture media	46
	Website announcement poster	33
	<b>Total</b>	<b>79</b>
<b>Project research publications</b>	2008 APS poster (Kubota)	49
	2008 APS poster (Jacobs)	14
	2007 APS poster (Denny)	6
	2008 Meng APS poster (Meng)	5
	<b>Total</b>	<b>74</b>
<b>Project modules</b>	R3bv2	49
	BR of potato	8
	BW of tomato	8
	SW of geranium	4
	<b>Total</b>	<b>69</b>
<b>USDA Management guides &amp; Pest alerts</b>	New pest response guideline	28
	Sanitary protocols offshore geranium cuttings production	18
	<i>Ralstonia</i> pest alert	7
	<i>Ralstonia</i> pest data sheet	3
	Recovery plan for R3bv2	2
	<i>Ralstonia</i> fact sheet	2
	<i>Ralstonia</i> in NY greenhouses	2
	<b>Total</b>	<b>62</b>
	<b>Diagnostic protocols</b>	UE Council Directive 98-57-EC 2006
EPPO <i>Ralstonia</i> diagnostic protocols		22
<b>Total</b>		<b>49</b>
<b>IFAS Management guides</b>	IPM Bacterial wilt	6
	Tomato diseases	5
	SW of geranium	3
	Florida PDMG: eggplant	2
	Florida PDMG: potato	1
	<b>Total</b>	<b>17</b>
<b>Pest-Disease information guides</b>	DEFRA BR of potato	6
	EPPO <i>Ralstonia</i> pest data sheet	4
	BPC BR of potato – Industrial guide	3
	BPC BR of potato – Irrigation guide	3
	<b>Total</b>	<b>16</b>
<b>Regulatory documents</b>	Federal register Oct 16 2008	11
	Bioterrorism act of 2002	4
	<b>Total</b>	<b>15</b>
<b>Meeting proceedings</b>	Symposium biol. control plant Diseases	10
	<b>Total</b>	<b>10</b>

### ◆ Visit length

This is the time between when a visitor accesses the first webpage of their visit, and when they access the last page. This indicates the interest visitors have in the website.

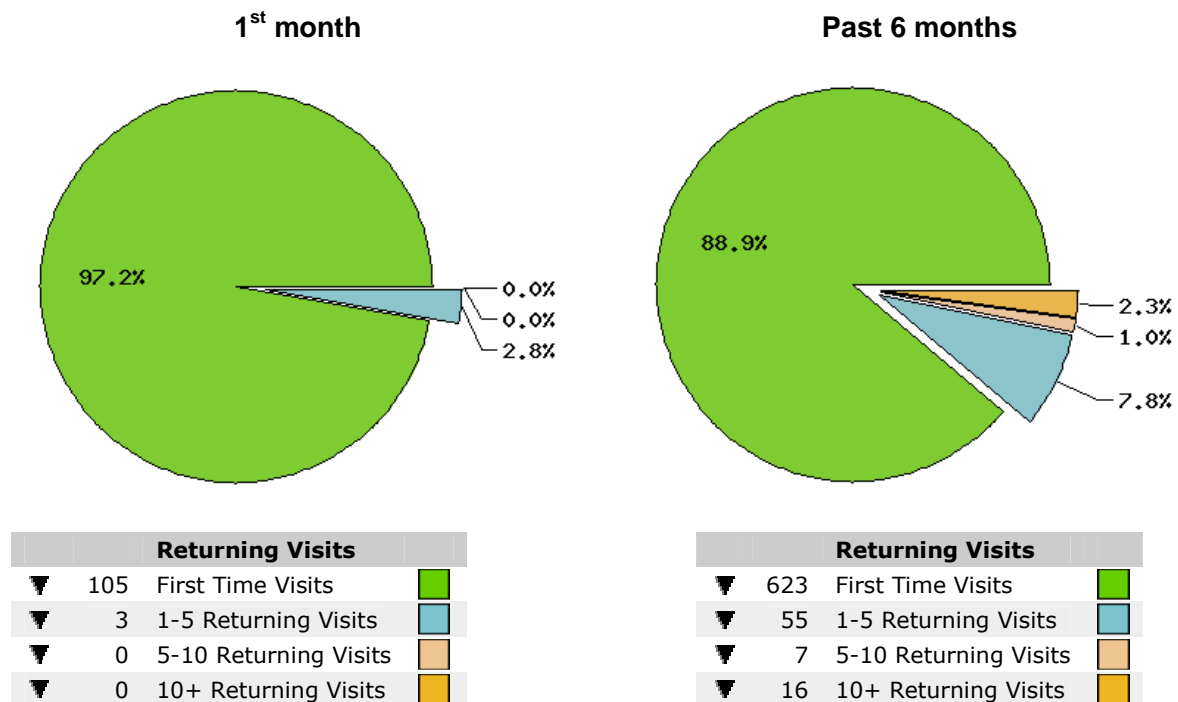
There has been no significant change in the distribution of the proportion for each *Visit length* category (see graph and table below). Proportion of significant visit length (above 5 minutes) have slightly decreased from 22.9% (1<sup>st</sup> month) to 20.4% (last 6 months).



### ◆ Returning visits

This shows us how often visitors return to see our website after a first visit. As mentioned before, number of returning visits is good information about long-term interest of website visitors, regarding accuracy of information provided. The best and most successful websites are the ones with a very high return frequency.

Comparison of data obtained in the 1<sup>st</sup> month and during the last 6 months indicates significant increase in percent of total returning visits (see graphs below).



## ◆ Conclusion

Statcounter data analysis over the last 6 months revealed a constant increase of page loads and first time visits in and outside the United States. Data regarding geographical origin of logs in the US revealed poor access to the website from potato-producing states where *R. solanacearum* race 3 biovar 2 is considered of a serious threat. This will lead to more efforts to deliver our educational website content in these target states using our networks and mailing lists.

With nearly 60% of logs from countries outside the US, a translation of the website in diverse languages (Spanish and French) will have to be considered in the future.

The significant increase in the number of returning visitors indicated long-term reliability of the website content and interest of visitors for new posts (documents) and updated information (hot topics, pest alerts, research accomplishments, new journal article releases) to the website. Data that are not shown here indicated an increase of website logs following website update notifications that are sent through a Ralstonia mailing list. This list was created during this project and includes 62 subscribers from different countries around the world. An objective for this program will be to increase the number of subscribers in the future for better delivery of our website content.

Finally, our website greatly contributed to delivery of pest and disease information and management guides, diagnostic protocols, and regulatory documents from diverse origins, including this project, USDA and University extension services, as indicated by the number of downloaded documents from the website.

Based on these data and the analysis of keywords used to access the website from different web search engines, such as Google and Yahoo, it can be considered a reliable and inevitable tool to obtain updated and accurate information on *R. solanacearum* and bacterial wilt diseases.