PLANT HEALTH WEEK 2022 EVALUATION REPORT

BACTERIAL PLANT DISEASES PROGRAMME

SUMMARY

Outcomes

- For the webinar 95 people registered and 57 attended, representing a 60% turnout. 62 of these were new contacts who asked to be added to our mailing list.
- On Twitter our account had over 10,000 tweet impressions during Plant Health Week (compared to around 2,000 in a typical week, and increase of 400%) and 20-30 likes per day (compared to the May average of 7 likes per day)
- Website views were up around 100% at 442 for the week, compared to 237 for the week before and 209 for the week after.

What worked well

- Good turnout for webinar with lots of new contacts and global reach, presumably enhanced by the association with Plant Health Week and International Plant Health Day
- Getting people involved from across the project teams whether that was through presentations, tweeting, or blog posts
- Taking part in an existing campaign (Plant Health Week) helped build our profile and social media engagement
- Collaboration with the DEFRA Plant Health Communications Group helped provide a focus and structure to our contributions, as well as raising our profile

What could be improved

- Getting more team members involved especially with #helpingkeepplantshealthy
- Increasing the reach of the Twitter campaigns particularly #plantsmakelifebetter which has huge broad potential
- Increasing website visitors, but perhaps this is unrealistic in a busy week with lots of other distractions

INTRODUCTION

Plant Health Week is an initiative coordinated by the Plant Health Action team at DEFRA. This year it ran from 9-15 May 2022. It also coincided with the United Nations Food and Agriculture Organisation (FAO) designated International Day of Plant Health on Thursday 12 May 2022. DEFRA convened a group of organisations with interests in plant health (Plant Health Communications Group), including BPDP, and encouraged these partners to run their own events and activities linked to the overarching theme and key messages.

Key messages for Plant Health Week 2022

- Appreciating plants
- Taking care of plants
- Enjoying nature and gardening responsibly

Core activities coordinated by DEFRA were centred on social media with campaigns linked to the key messages using #planthealthweek. They also proposed a loose framework for the week with certain days having themes – Monday: scene setting, Tuesday: plants and culture, Wednesday: science, Thursday: plant health day, Friday: citizen science. FAO organised an international webinar on 12 May as well as social media campaigns using #planthealthday.

The Bacterial Plant Diseases Programme organised a series of events and activities linked to the key messages and daily themes:

Date	Activity
Mon 9 May	Blog post: How do bacteria affect plant health?
Tue 10 May	Social media campaign #PlantsMakeLifeBetter and blog post: Odes to our iconic oaks
Wed 11 May	Webinar: Innovative approaches to controlling bacterial plant diseases
Thu 12 May	Social media campaign #HelpingKeepPlantsHealthy
Fri 13 May	Launch of new resources web page

Aims of our Plant Health Week activities

- To contribute to Plant Health Week as a supportive partner to DEFRA
- To ensure that plant health challenges caused by bacteria were represented
- To raise the profile of the Bacterial Plant Diseases Programme and projects
- To provide low stakes opportunities for team members to get involved in research communications to build their confidence

ACTIVITIES

TWITTER CAMPAIGNS

Our Twitter campaigns were conceived as a simple and low stakes way to encourage project team members to get involved. Social media skills had been raised as an area where researchers wanted to develop in a recent (March 2022) full team meeting.

In the week before Plant Health Week Sarah McLusky presented a 30-minute training session to introduce the hashtags and give some advice on using social media. This session was also recorded and made available to anyone who couldn't attend the live session.

#PlantsMakeLifeBetter

This hashtag and campaign was chosen to fit with the week's first aim – appreciating plants. Team members were encouraged to share their favourite plants in everyday life and culture, for example plants in gardens, houseplants, food/drink, medicine or art.

During Plant Health week there were 18 Tweets using #plantsmakelifebetter from 15 different individuals. These tweets were collectively retweeted 48 times and liked 224 times. Of the 15 tweeters, 9 were members of the BPD programme coordination or project teams. The other 6 included Scotland's Plant Health Centre, UK Treescapes, and individual researchers and/or gardeners.

The two most popular tweets came from BPD team members Joana Vicente and Murray Grant.

The most common theme of the tweets was appreciation for parks, gardens, gardening, or other cultivated plants (n=6). A further 5 tweets referenced food or drink, 3 highlighted the general importance of plants to humans, 2 covered biosecurity issues and 1 featured a wild plant.

Generally the tweets which were most popular were posted early in the campaign and had striking accompanying photographs.

Table 1: Full list of Tweeters for #PlantsMakeLifeBetter

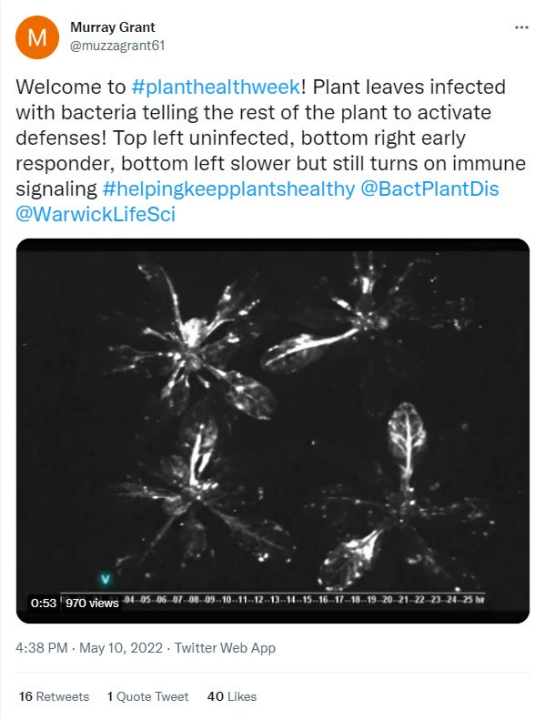
Tweeter	Handle	BPD?	Followers	Retweets	Likes	Theme
Murray Grant	@Muzzaphytopath	Y	255	2	34	parks and gardens/ food & drink
Joana M.G.N. Vicente	@JoanaGVicente	Y	656	13	31	parks and gardens
Dr Andrea Harper	@Andrea_L_Harper	Y	365	2	25	wild plants
Scotland's Plant Health Centre	@PlantHealthScot	N	1094	7	18	biosecurity
Brendon Sims	@bsims_sims	N	180	1	16	parks and gardens
Bacterial Plant Diseases Programme	@BactPlantDis	Y	886	2	14	general
Bacterial Plant Diseases Programme	@BactPlantDis	Y	886	2	13	cultural value
Sarah McLusky	@smclusky	Y	94	2	12	parks and gardens
Forest Research Soc Env Group	@FR_SERG	Y	865	3	10	cultural value
Paul McMenemy	@menomaths	N	172	1	10	food & drink
Jacob Nickles	@jacob_nickles	Y	209	1	8	parks and gardens
Sara R	@SJRAfloat	N	1672	5	8	biosecurity
UKTreescapes	@UK_Treescapes	N	891	1	8	cultural value
Adam Kleczkowski	@aklecz	Y	434	2	6	parks and gardens
Joana M.G.N. Vicente	@JoanaGVicente	Y	656	1	4	food & drink
Sadik Muzemil	@sadikmz	N	476	1	4	food & drink
Debra Frederickson M	@debfrederickso1	Y	106	1	2	parks and gardens
Debra Frederickson M	@debfrederickso1	Y	106	1	1	parks and gardens/ food & drink

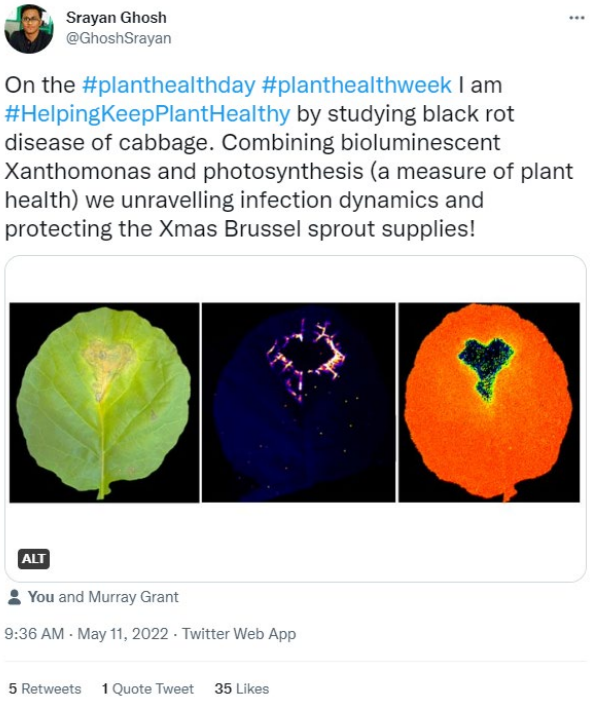
#HelpingKeepPlantsHealthy

This hashtag and campaign was an opportunity for researchers to showcase their work to demonstrate the ways that the programme team are contributing to supporting plant health. Team members were invited to share photo(s) of their research with a short explanation.

During Plant Health week there were 13 Tweets using #helpingkeepplantshealthy from 9 different individuals. These tweets were collectively retweeted 71 times and liked 230 times. Of the 9 tweeters, 7 were members of the BPD programme coordination or project teams. The other 2 were Scotland's Plant Health Centre and a postdoc researching plant viruses.

The two most popular tweets came from BPD team members Murray Grant and Srayan Ghosh.





Although this campaign gleaned a smaller number of individual tweets, those tweets had higher rates of engagement (likes and retweets) than #PlantsMakeLifeBetter. #PlantsMakeLifeBetter an average of 3 retweets and 12 likes per post, compared to 5 retweets and 18 likes per post for #HelpingkeepPlantsHealthy. It is impossible to say if this is due to the content of the tweets or because on that day (which was International Plant Health Day) people were more likely to be looking out for and sharing relevant content.

WEBINAR

On Wednesday 11 May, the Plant Health week 'science' day, we hosted a webinar with the title 'Innovative approaches to controlling bacterial plant diseases'. It was free to attend, ran 1-2pm, and was hosted on Zoom. This webinar included three short presentations on promising new biocontrol treatments being studied by our project teams and the opportunity to ask questions. The session was chaired by Sarah Green.

The three talks were

- 'Engineering plant microbiomes to promote health and suppress disease' with Prof James McDonald (Bangor University and Future Oak project)
- 'Disease suppressive soils' with Prof Duncan Cameron (University of Sheffield and Disease Suppressive Microbes project)
- 'Using bacterial viruses (phages) to control plant pathogens in the rhizosphere' with Dr Ville Friman (University of York and Ralstonia Phage project)

The timing and format of the event was as follows

- 1:00pm: Welcome (Sarah Green) and introduction/housekeeping (Sarah McLusky)

- 1.05pm: Opening activity (Sarah McLusky). Zoom embedded polls with the following multiple-choice questions – 'How much do you know about today's topic?', 'What do you want to learn about today?'
- 1.10pm: Speaker 1 - James McDonald
- 1:20pm: Speaker 2 - Duncan Cameron
- 1.30pm: Speaker 3 - Ville Friman
- 1.40pm: Q&A for all speakers
- 1.55pm: Closing remarks (Sarah Green)
- 2:00pm: Close

The talks were all recorded and are now hosted on YouTube where to date they have collectively been viewed 141 times. The most viewed of the three, the phage talk, is currently the BPD YouTube channel's 8th most popular video.

Webinar Audience

Eventbrite was used for managing registrations. Registration was free and when registering, participants were asked if they considered themselves to be a researcher, a stakeholder or 'just interested' in the topic. They were also asked if they would like to subscribe to the BPD mailing list. These were cross-referenced against the registration list as far as possible, but some people had screen names which didn't match the list. It is unclear whether these people had registered but were using a different screen name or whether they hadn't registered but had, for example, been forwarded the Zoom link by another registered attendee.

In total 95 people registered for the event. On the day 57 people attended the event (plus the 5 speakers/organisers). This means overall turnout was 60% which is excellent for a free online event.

Table 2: Comparison of those who registered for and attended the webinar

	Registered	Attended	% Attended	Joined mailing list
Just interested	6	4	67%	2
Researcher	60	33	55%	39
Stakeholder	29	17	59%	21
Unknown	n/a	3	n/a	n/a
Total	**95**	**57**	**60%**	**62**

When asked at the beginning to rate their current knowledge about the webinar topic most scored themselves as a 2 (33%) or a 3 (41%) out of 5 meaning they were not complete beginners but not experts either. Based on email addresses the audience was very varied, both in terms of organisation and geographical location. People were registered from Australia, France, Colombia, Switzerland, Pakistan, India, and China, as well as the UK of course. Organisations represented included DEFRA, the Woodland Trust, APHA, Forestry England, Kew Gardens, Grown In Britain, Enza Zaden (vegetable breeders), Garden Organic, and CHAP (agri-tech), as well as numerous universities.

BLOG POSTS AND WEB PAGES

During the week we published two blog posts and launched a new section of our website. The first blog post 'How do bacteria affect plant health?' was a scene-setting article written collaboratively by the Coordination Team. It was published on Monday 9 May to kick off Plant Health Week. The second 'Odes to our Iconic Oaks' written by Mike Dunn was a review of submissions collected by the Odes 2 Oaks campaign. It was published on Tuesday 10 May for the 'plants and culture' day. Finally on Friday 13 May we launched a new Resources section of the Bacterial Plant Diseases Programme website.

The table below shows the viewing statistics for the various Plant Health Week related pages on the Bacterial Plant Diseases Programme website. Although the numbers don't look huge they are typical for the site where the average all time views per page (excluding the homepage) is 65. Notably during the last quarter the webinar listing was the top-ranked page after the home pages, and the Resources page only 2 places behind.

Table 3: Visitor statistics for Plant Health Week specific web pages

Web page	All time views*	Overall Rank (of 68 pages)	Last quarter rank (of 68 pages)
Innovative approaches to controlling bacterial plant diseases (event listing)	183	8	2
Resources (web page)	87	23	4
How do bacteria affect plant health? (blog)	47	29	10
Looking forward to Plant Health Week 2022 (news)	37	34	17
Launching our new resources section (news)	36	35	19
Odes to our iconic oaks (blog)	18	44	30

*website average is currently 65 views (excluding the home page) but that includes pages and posts which have been online much longer

Overall, these Plant Health Week posts and pages boosted website visitors considerably. Total views for that week were 442, compared to 237 for the week before and 209 for the week after. So despite the fact that no individual post achieved huge numbers of views the new content encouraged more people to visit the website.