



Office Use Only

Project Code	
Project Type	

FINAL REPORT 2018

Applicants must read the *SAGIT Project Funding Guidelines 2018* prior to completing this form. These guidelines can be downloaded from www.sagit.com.au

Final reports must be emailed to admin@sagit.com.au as a Microsoft Word document in the format shown **within 2 months** after the completion of the Project Term.

PROJECT CODE	:	APP118 ASDS2018
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PROJECT TITLE	10 th Australasian Soilborne Disease Symposium 2018 in Adelaide

PROJECT DURATION

These dates **must** be the same as those stated in the Funding Agreement

Project Start date	01/07/2018				
Project End date	10/09/2018				
SAGIT Funding Request	2015/16		2016/17		2017/18

PROJECT SUPERVISOR CONTACT DETAILS

The project supervisor is the person responsible for the overall project

Title:	First Name:	Surname:		
Dr	Gupta	Vadakattu		
Organisation:				
for Australasian Plant Pathology Society				
Mailing address:				
Telephone:	Facsimile:	Mobile:	Email:	

ADMINISTRATION CONTACT DETAILS

The Administration Contact is the person responsible for all administrative matters relating to the project

Title:	First Name:	Surname:	
Dr	Peter	Williamson	
Organisation:			
Australasian Plant Pathology Society			
Mailing address:			
Telephone:	Facsimile:	Mobile:	Email:

PROJECT REPORT

Provide clear description of the following:

Executive Summary (200 words maximum)

A few paragraphs covering what was discovered, written in a manner that is easily understood and relevant to SA growers. A number of key dot points should be included which can be used in SAGIT communication programs

The 10th ASDS was held in Adelaide during September 4th - 7th attracting 120 participants from 9 countries. With over 50 oral and 28 poster presentations, the meeting provided a forum with diverse expertise for the participants to develop new collaborations and learn about latest developments in pathogen diagnostics, ecology and disease management. Presentations by key note speakers included topics related to disease suppression, rhizosphere microbiology, diagnostics and new concepts for disease management through manipulation of the plant microbiome, resistance and biosecurity. It was evident that recent developments to measuring pathogen levels in field samples (e.g. DNA based tools and Predicta-B service) have greatly assisted with the improved understanding of pathogen dynamics and benefited both researchers and farmers. The term 'phytobiome' received great attention as it is considered as the next frontier in developing plant-based disease control options. The conference was represented by researchers, students and end users from 7 agricultural industries and the presentations dealt with >45 fungal and nematode pathogens on 16 different crops. The meeting with its diverse audience provided an excellent cross-industry platform/international forum for the attendees for sharing ideas, learning new developments in options for disease management and research tools and to forge new collaborations.

Project Objectives

A concise statement of the aims of the project in outcome terms should be provided.

To organize the 10th Australasian Soilborne Disease Symposium (www.asds2018.com.au) with an aim to host talks by national and international experts for the benefit of researchers and growers, on new insights in disease control through natural disease suppression/biocontrol, new understanding of the microbiome and plant resistance for reducing disease impacts.

Overall Performance

A concise statement indicating the extent to which the Project objectives were achieved, a list of personnel who participated in the Research Project including co-operators, and any difficulties encountered and the reasons for these difficulties.

1. Diverse audience participation - The 10th ASDS meeting was a great success in that its diverse audience provided an excellent cross-industry platform/international forum for the attendees for sharing ideas, learning new developments in options for disease management and research tools and to forge new collaborations. Participant responses from the post-conference survey is a testament of the success of the conference (see survey results and feedback comments below).
2. Training opportunity - There were 29 attendees to the three pre-conference Technical workshops on 'field sampling strategy and experimental design', 'nematode diagnostics' and 'discovery of actinobacteria'.
3. Key note speaker - SAGIT co-funded (with GRDC) the keynote talk by Dr. Russell Eastwood, AGT gave a talk on 'Breeding for soil-borne disease'. Russell indicated that breeding to limit losses from soilborne diseases will continue to be a productive strategy for control. It was highlighted that breeding relies on: (i) knowledge to identify and quantify constraints for good resource allocation, (ii) genetic variation that is well characterized and (iii) tools to allow plant breeders to manipulate the genes effectively in breeding programs.
4. SAGIT support was acknowledged verbally at the opening and closing sessions, on screen at the commencement of all sessions, at the sponsored keynote speaker talk, in print material and onsite signage.

Participant survey results:

Question	Very Good	Good	Below average
The relevance of conference presentations and topics	70	30	0%
The balance and mix of conference topics	41	51	<1%
The conference value for money	44	39	<1%
Key note presentations	30-64	34-51	<6%
Poster presentations	43	54	0%
Overall rating of the 10 th ASDS conference	65	30	0%

Some of the main reasons for attending the conference include: Theme/content (83%), Networking opportunities (86%), professional development opportunity (60%), to give a presentation (38%) etc.

Feedback:

Mark Mazzola (Research Plant Pathologist, Keynote speaker from USDA-ARS Wenatchee, USA) – “It was one of the more informative meetings that I have attended in my time as a research scientist. Would have been of great benefit to have attended such a meeting earlier in life! As I am certain is true for many, I have come to value and appreciate focused topic meetings such as ASDS over a meeting such as ICPP or APS.....”

Friday Obanor (Manager, GRDC Diseases) – “I thought the meeting on Monday last week and the subsequent symposium on Wednesday was very good. Well done to you and your team for organising a highly successful symposium in Adelaide”

#	RESPONSES	DATE
1	Really enjoyed the post-conference field trip. Was good to hear info from grower and researchers about their trials in SA. Enjoyed the lunch and wine tasting too. Well done to the organisers of the field trip and the speakers in the field!	9/12/2018 3:58 PM
2	One of the better ASDS conferences I have attended - the group was not too big, the venue worked well and proximity to Adelaide City was convenient. A lot of new work was presented, in particular, on genomics, soil and plant microbiology and a systems approach to these issues.	9/12/2018 2:53 PM
3	I really loved the cross sector format great alchemy	9/12/2018 12:55 PM
4	The small size of the conference and not having concurrent session made it a very relaxed environment, good for networking - content was great - this was my first but hopefully not my last ASDS	9/12/2018 10:37 AM
5	I liked this ASDS symposium as one can attend all the presentations, even if not your area of expertise. As researchers, it's good to develop and widen our knowledge of all things pathology. Please avoid ever having concurrent sessions.	9/12/2018 6:04 AM
6	Looking forward to Cairns	9/12/2018 2:27 AM
7	From a topic matter perspective, this is one of the best meetings I have attended during my 30 tenure in the field of plant pathology	9/12/2018 12:31 PM
8	Congratulations Gupta and co!	9/11/2018 2:55 PM
9	A very professionally run conference. A pleasure to attend.	9/11/2018 12:24 PM
10	Hope to see you in Cairns!	9/11/2018 10:32 AM
11	Too many presentations on application/extension studies. I understand that this is an Australasian symposium aimed to solving real problems in the field. But if the symposium wants to attract more international participants, at least 50% of presentations should be about basic or applied basic research.	9/11/2018 10:29 AM
12	It was quite enjoyable.	9/11/2018 10:10 AM

Key Performance Indicators (KPI)

Please indicate whether KPI's were achieved. The KPI's **must** be the same as those stated in the Application for Funding and a brief explanation provided as to how they were achieved or why they were not achieved.

KPI	Achieved (Y/N)	If not achieved, please state reason.
Successful Organisation of the conference	Y	
Submission of report to SAGIT	Y	

Technical Information (Not to exceed three pages)

Provide sufficient data and short clear statements of outcomes.

N/A

Conclusions Reached &/or Discoveries Made (Not to exceed one page)

Please provide concise statement of any conclusions reached &/or discoveries made.

A brief summary of challenges and opportunities for future research identified (Stephen Neate, USQ and VVSR Gupta, CSIRO):

1. Molecular diagnostics – As it is now possible to make in-depth understanding of all the players involved in disease incidence and its impact, the single species based on diagnostics may be extended to include all the pathogenic variants and/or complexes in a community based diagnostics both to identify disease risk and develop more effective management options. In order to maximize the benefits from new molecular diagnostics a closer integration with classical pathosystem research is recommended.

2. Management - It is suggested that the new developments in diagnostics, in particular high throughput and in-field based tools, should be used to improve knowledge about mechanisms of pathogen ecology and epidemiology, disease incidence and suppression. For example, the new tools would allow field-based studies dealing with epidemiology in the presence of multiple pathogens and identification of factors that cause or suppress soilborne diseases. In the mature field of biocontrol research, future research should concentrate on interactions of biologicals with the environment to identify a more effective time of application and improving the stability of biological products.
3. Resistance and Microbiome – Based on recent findings on disease suppressive microbiome and rhizosphere microbial dynamics, future research needs to better exploit host genetics – microbiome linkages, in order to develop more sustainable management options for reducing disease impacts. There was a general agreement that the phytobiome concept should be included in all aspects of disease research i.e. plant based resistance, crop rotations and biological interventions.
4. Phenotyping / Trait analysis - It is suggested that the use of in field phenotypic tools such as image analysis and remote sensing should be encouraged in order to improve interpretation of findings to field based responses to disease management practices.
5. Communication and adoption – There should a clear focus on path to application of research to real field conditions and in the effective communication of research findings to farmers/end users.

Overall, it was clearly evident and agreed by participants that there is a need to adopt a transdisciplinary research approach to integrate the diverse fields of expertise in cropping system-based experiments (e.g. evaluating cover cropping effects on disease incidence/suppression) to deal with the multiple factors and players involved in developing field-effective disease management options and sustainable outcomes.

Intellectual Property

Please provide concise statement of any intellectual property generated and potential for commercialisation.

The conference program with summaries of all presentations including keynote speaker talks are available at the conference website www.asds2018.com.au and www.appsnet.org for open access.

Copies of the conference program (hard copy) and full proceedings with extended abstracts are sent to SAGIT.

Application / Communication of Results

A concise statement describing activities undertaken to communicate the results of the project to the grains industry. This should include:

- *Main findings of the project in a dot point form suitable for use in communications to farmers;*
- *A statement of potential industry impact*
- *Publications and extension articles delivered as part of the project; and,*
- *Suggested path to market for the results including barriers to adoption.*

Note that SAGIT may directly extend information from Final reports to growers. If applicable, attach a list of published material.

N/A

POSSIBLE FUTURE WORK

Provide possible future directions for the research arising from the project including potential for further work and partnerships.

N/A

AUTHORISATION
Name: Dr. Brett Summerell
Position: President Australasian Plant Pathology Society
Signature:
Date: 24 September 2018

Submit report via email to admin@sagit.com.au as a Microsoft Word document in the format shown ***within 2 months*** after the completion of the Project Term.