STAY REPORT

1. Delegation composition, visited institutions and dates.

Composition of the delegation

Num.	*Name*	*Institution*	*Position*
1	Chunjiang Zhao	NERCITA	Director, Professor
2	Jianping Qian	NERCITA	Group leader, Associated Professor
3	Ming Li	NERCITA	Group leader, assistant professor
4	Zhanhong Ma	CAU	Vice Dean, Professor
5	Zhenfa Li	TJCC	Director, Professor
6	Tie Wang	TJCC	Associated Professor

(* As the most of the stays have been collective visits, reports are structured by delegation in order to simplify management; in the case of a single person stay, just use one line; include as many lines as people composed the delegation *)

Full period of stay

Num.	*Name*	*Start Date**	*End Date***
1	Chunjiang Zhao	Sep 27th	Oct 3rd
2	Jianping Qian	Sep 27th	Oct 8rd
3	Ming Li	Sep 27th	Oct 8rd
4	Zhanhong Ma	Sep 5th	Oct 1st
5	Zhenfa Li	Sep 27th	Oct 8rd
6	Tie Wang	Sep 27th	Oct 8rd

** Start Date, when the researcher leaves her/his Institution.*

*** End Date, when the researcher returns to her/his Institution.*

(* State the duration of the stay for any member of the delegation; these can be different *)

Destinations and dates*

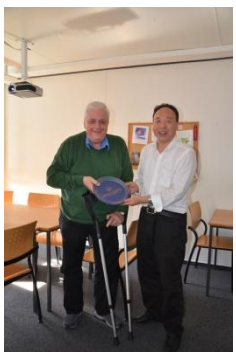
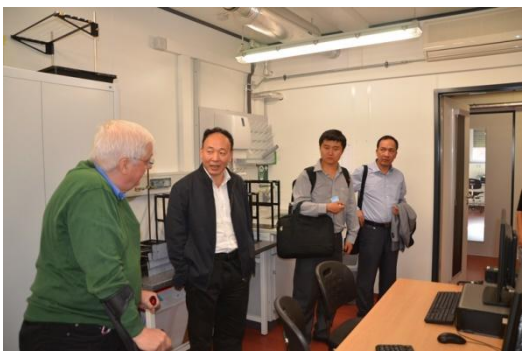
Num.	*Name*	*Visited Institution***	*Start Date*	*End Date****
1	Chunjiang Zhao	Land-wirtschaftliche base of UB	Sep 30th	Sep 30th
		INRES-Phytomedizin of UB	Oct 2nd	Oct 2nd
2	Jianping Qian	Land-wirtschaftliche base of UB	Sep 30th	Sep 30th
		INRES-Phytomedizin of UB	Oct 2nd	Oct 2nd
3	Ming Li	Land-wirtschaftliche base of UB	Sep 30th	Sep 30th
		INRES-Phytomedizin of UB	Oct 2nd	Oct 2nd
4	Zhanhong Ma	INRES-Phytomedizin of UB	Sep 5th	Oct 1st
5	Zhenfa Li	INRES-Phytomedizin of UB	Aug 31th	Sep 1st
6	Tie Wang	INRES-Phytomedizin of UB	Aug 31th	Sep 1st

** During a full stay, different Institutions can be visited; these different visits are enlisted here; generating different records on the stay's database.*
*** Institutions are named by their acronym as detailed in the Annex I.*
**** When a day includes activities in more than one place, it is selected the place where the most of the time has been used.*

(* The member of a delegation can visit different partners of the counterpart area during a single journey; here you must state the time at every partner; start and end dates of the full period must be considered as limits of the detailed stays *)

2. Technical visits.

Institution/Company:	INRES-Phytomedizin		
Date:	Sep, 6th- Oct, 2nd	***Location:***	Bonn, Germany
Person/s of contact:	Prof. Dr. Heinz-W. Dehne		
Delegation participants:	Chunjiang Zhao Zhanhong Ma Zhenfa Li Tie Wang Jianping Qian Ming Li		
Short Description of the Institution/company:	A research institute for plant disease phenotyping and warning.		
Comments about the visit:	We visited Plant Medicine Lab of Institute for Crop Science and Resource Conservation (INRES), to discuss with Prof. Dehne's team with the plant disease warning. Under the guidance of Prof. Dehne, we visited the experiment platform for phenotyping in plant diseases, including hyperspectral remote sensing system, scanning electron microscope, cultivation greenhouse, etc. We don't take any pathogen from UB.		


Institution/Company:	Land-wirtschaftliche base		
Date:	Sep, 30th	***Location:***	Bonn, Germany
Person/s of contact:	Prof. Dr. Leon		
Delegation participants:	Chunjiang Zhao Jianping Qian Ming Li		
Short Description of the Institution/company:	A research base for plant phenotyping, crop and fruit tree planting.		
Comments about the visit:	We visited Land-wirtschaftliche base with the arrangement of CROP.SENSe.net Symposium, to see the crop and apple tree experiment, agricultural machinery, Unmanned Aerial Vehicle and phenotyping equipment in greenhouses. We don't take any pathogen from UB.		

3. Speeches and participation in Workshops/Conferences/Courses.

Title of the presentation:	Wheat stripe rust epidemic and control in China		
Speaker:	Zhanhong Ma		
Organization:*	INRES-Phytomedizin		
Date:	Sep, 30th,2014	***Location:***	UB
Person/s of contact:	Prof. Dr. Heinz-W. Dehne		
Short summary of the presentation:	China has the largest epidemic region in the world in terms of wheat acreage affected by stripe rust. Extensive studies on the epidemiology and management were carried out since the widespread occurrence in 1950's. Prof. Ma discussed the pathogen variability and race virulence, resistance genetics, background of Chinese wheat cultivars, the progress and challenges of wheat stripe rust management in China.		

Public:	Restricted to the INRES researchers.

Title of the presentation:	The pest early warning for the horticultural crops		
Speaker:	Ming Li		
Organization:*	INRES		
Date:	Oct, 2nd,2015	***Location:***	UB-INRES
Person/s of contact:	Prof. Dr. Heinz-W. Dehne		
Short summary of the presentation:	Dr. Li gave a brief introduction of horticultural production with diseases and insect pests. After the horticultural crop-pest system analysis, he proposed a Crop-pest-environment sense and modelling method, an early warning model and system, a method for tracing the warning sources, the integrated pest management (IPM) and future work		
Public:	Restricted to the INRES researchers.		

Title of the presentation:	The Application and prospects of monitoring and warning technology of greenhouse chilling injury based on the internet of things		
Speaker:	Tie Wang		
Organization:*	INRES		
Date:	Oct, 2nd,2014	***Location:***	UB-INRES
Person/s of contact:	Prof. Dr. Heinz-W. Dehne		
Short summary of the presentation:	Mr. Wang gave a brief introduction of existed problems and study purposes. Then he introduced an integrated technology of monitoring and early warning greenhouse chilling injury based on the IOT, which provided a low-cost, safe and efficient way to deal with meteorological disasters for the solar greenhouse.		
Public:	Restricted to the INRES researchers.		

** Indicate the Institution where the talk has been given, and in the case of formal workshops or Congress its name.*

(* Fulfill a specific table for every talk developed under the framework of the stay *)

4. Summary of the exchange and research developed.

(* Free text describing in a short way the exchange/research tasks developed during the stay, indicate if any research result or collaboration statement has been obtained from the visit *)

Main results of these stays have been:

a/ We study the application of spectrum in the plant disease early diagnosis technology. Spectral reflectance of sugar beet was affected by each disease in a characteristic way, resulting in disease specific signatures. Reflectance differences, sensitivity, and best correlating spectral bands differed depending on the disease and the developmental stage of the diseases. Compared to non-imaging sensors, the hyperspectral imaging sensor gave extra information

related to spatial resolution. The study results of Prof. Dehne contribute to a better understanding of plant optical properties during disease development. Methods will further be applicable in precision crop protection, to realize the detection, differentiation, and quantification of plant diseases in early stages. (Main researcher: Prof. Chunjiang Zhao, Prof. Zhanhong Ma, Prof. Zhenfa Li, Mr. Tie Wang, Dr. Jianping Qian, Dr. Ming Li).

b/ We understand the plant disease early diagnosis of instruments and equipment. In the lab, we visited the experiment platform for phenotyping in plant diseases, including hyperspectral remote sensing system, scanning electron microscope, cultivation greenhouse, etc. They may be not the most advanced equipment in the world, even comparing with some China's labs, but they are maintained very well with application in plant disease research. (Main researchers: Prof. Chunjiang Zhao, Prof. Zhanhong Ma, Prof. Zhenfa Li, Mr. Tie Wang, Dr. Jianping Qian, Dr. Ming Li).

c/ We know the relevant plant disease experts and establish a good relationship. Through different meetings, we know some relevant plant disease experts from Germany, and try to establish a good relationship for finding some chances to cooperation in some projects. (Main researchers: Prof. Zhanhong Ma, Dr. Ming Li).

During all the days in Bonn, we had not taken any pathogen from any institute or person.