

STAY REPORT

1. Delegation composition, visited institutions and dates.

Composition of the delegation

<i>Num.</i>	<i>Name</i>	<i>Institution</i>	<i>Position</i>
1	J. Fernando Bienvenido	UAL	Professor Coordinator of TEAP
2	Cynthia L. Giagnocavo	UAL – Cátedra Coexphal	Researcher Co-director of the Coexphal-UAL Chair of Horticulture, Cooperative Studies and Sustainable Development
3	Manuel Berenguel Soria	UAL	Full Professor Coordinator Research Group ARM
4	Jorge A. Sanchez Molina	UAL	Assistant Professor

Full period of stay

<i>Num.</i>	<i>Name</i>	<i>Start Date*</i>	<i>End Date**</i>
1	J. Fernando Bienvenido	September 16 th 2015	October 28 th 2015
2	Cynthia L. Giagnocavo	September 17 th 2015	October 4 th 2015
3	Manuel Berenguel Soria	September 25 th 2015	October 3 rd 2015
4	Jorge A. Sanchez Molina	September 25 th 2015	October 3 rd 2015

* *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*

<i>Num.</i>	<i>Name</i>	<i>Visited Institution**</i>	<i>Start Date</i>	<i>End Date***</i>
1	J. Fernando Bienvenido	NERCITA	Sep 16 th 2015	Sep 22 nd 2015
		SDAU	Sep 23 rd 2015	Sep 25 th 2015
		TJCC	Sept 26 th 2015	Sep 27 th 2015
		NERCITA-CAU	Sept 28 th 2015	Oct 28 th 2015
2	Cynthia L. Giagnocavo	NERCITA	Sep 17 th 2015	Sep 22 nd 2015
		SDAU	Sep 23 rd 2015	Sep 25 th 2015
		TJCC	Sept 26 th 2015	Sep 27 th 2015
		CAU - NERCITA	Sept 28 th 2015	Oct 4 th 2015
3	Manuel Berenguel Soria	TJCC	Sept 25 th 2015	Sep 27 th 2015
		CAU - NERCITA	Sep 27 th 2015	Oct 3 rd 2015

* *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:	Beijing Ainong Breeding Base Co. Ltd (北京爱农养殖基地有限公司)		
Date:	Sep 21 st 2015	Location:	Miyun (Beijing)
Person/s of contact:	Mr. CHEN Lianshan		
Delegation participants:	J. Fernando Bienvenido Cynthia L. Giagnocavo		
Short Description of the Institution/company:	Poultry cooperative with internet sales, direct distribution of products in the area of Beijing. Specific variety of chicken (Beijing) and other products such as vegetables.		
Comments about the visit:	Website where the customers can see the living products, select specific units and buy interactively. ICT used to monitor all locations, contributing to quality control and transparency. Real time logistic tracking of the deliveries. Good application of ICT for cooperative management, quality control and sales.		



Institution/Company:		China Good Agri-Products Development & Service Association (CGAPA)	
Date:	Sep 22 nd 2015	Location:	Beijing (CGAPA - CAAS)
Person/s of contact:		Ms. Huang Jingyi (Director) and Mr. Calvin Teng (Int.Rel.)	
Delegation participants:		J. Fernando Bienvenido Cynthia L. Giagnocavo	
Short Description of the Institution/company:		Association supported by the Chinese Government and located at the China Academy of Agricultural Sciences, in charge to improve the confidence and trust in Chinese agricultural production through the development and application of specific regulatory standards, training and traceability systems. CGAPA acts as a think-tank on products, processing, management and technological development. Main goals include improving food safety, raising income levels of farmers and increasing competitiveness.	
Comments about the visit:		We discussed the roles of our Institutions in the area of agro-product certification and reliability. We discuss details about the participation in a common Horizon2020 proposal actually under 2 nd phase evaluation. A local workshop and discussion followed the presentation of our Institutions.	



Institution/Company:	Walnuts cooperative – Shandong		
Date:	Sep 23 rd 2015	Location:	Tai'an
Person/s of contact:	Wang Yan'An		
Delegation participants:	J. Fernando Bienvenido Cynthia L. Giagnocavo		
Short Description of the Institution/company:	Cooperative producing walnuts and derivates such as nut oil.		
Comments about the visit:	A cooperative founded in 2011, has 345 members and 130 ha. under production. It sells its high quality product through direct internet sales to both large cities and the coastal regions. They sell all their production, and credit the high quality product for this. The cooperative offers processing, packaging and marketing service to the farmer members. They are considering entering export markets and have adopted a growth strategy, of which ICT plays an important role and have experienced 30% growth in recent years.		



Institution/Company:	Fruit and Vegetable cooperative		
Date:	Sep 23 rd 2015	Location:	Tai'an
Person/s of contact:	Wang Yan'An		
Delegation participants:	J. Fernando Bienvenido Cynthia L. Giagnocavo		
Short Description of the Institution/company:	Cooperative producing fruits (peaches) and vegetables. Internet selling, courier distribution.		
Comments about the visit:	<p>This cooperative has 271 members and was founded in 2009. Their strategic advantage is based on niche, high quality products, and efficient use of direct sales-2/3 of sales are by internet, some are still by traditional channels. Markets include Shanghai and Hong Kong. The focus on continuous improvement of quality and manage to sell a box (6) of peaches for 8 Euros. They cooperate with various universities on diversification and cultivation improvements. Turnover in the range of 200.000 Euros per year, with plans to reach 400.000 per year. Other high quality and profitable products include duck eggs which sell for 10 Euros and which are marketed by ecommerce.</p>		



Institution/Company:		Poultry cooperative	
Date:	Sep 23 rd 2015	Location:	Tai'an
Person/s of contact:		Wang Yan'An	
Delegation participants:		J. Fernando Bienvenido Cynthia L. Giagnocavo	
Short Description of the Institution/company:		Cooperative selling live poultry all around the country. Associated to a Ltd. Company that fixes prices and standards.	
Comments about the visit:		<p>This cooperative specialises in the production of “yellow skin” chicken, which is sold live to final users. It has 360 members and a production of approx.. 20 to 30 thousand chickens per member. Total benefits are approx. 16 million Euros. Farmers receive a fixed benefit per chicken from the limited company which acts as an intermediary. The company controls all aspects of the supply chain, including processing the feed, to control quality. They invest in research on new breeds. They have a technical extension, an epidemic prevention team, and a team to collect the chickens. They have strict quality control and a unified brand/seal. The use of ICT technologies allows such strict control of the supply chain in this case. Last year growth was 30%. Total turnover last year was 20 million Euros and they hope to reach 25 million Euros next year.</p>	



Institution/Company:	Vegetable cooperative		
Date:	Sep 23 rd 2015	Location:	Tai'An
Person/s of contact:	Wang Yan'An		
Delegation participants:	J. Fernando Bienvenido Cynthia L. Giagnocavo		
Short Description of the Institution/company:	Vegetable cooperative, organic production. Selling on demand.		
Comments about the visit:	This cooperative produces a wide variety of organic fresh produce, both in greenhouses and open field. Pre-orders must be made 25 days in advance and are sold via direct sale. The structure of the cooperative is similar to the Peach cooperative mentioned above. Farmers are guaranteed a minimum price and all product is sold.		



Institution/Company:	Mushroom Cooperative		
Date:	Sep 23 rd 2015	Location:	Tianjin
Person/s of contact:	Mr. Xue		
Delegation participants:	J. Fernando Bienvenido Cynthia L. Giagnocavo Manuel Berenguel Soria Jorge Sánchez Molina		
Short Description of the Institution/company:	Big mushroom cooperative, two main varieties. Full process from substrate to delivery. Some automation of processes.		
Comments about the visit:	A short visit to a mushroom production cooperative; general process medium automation, two types of mushrooms, preparation of the substrate base, own delivery system. Clean production, but the structure of the company was not clear so as to define it as a cooperative (e.g. it appeared to resemble a Ltd. Society)		



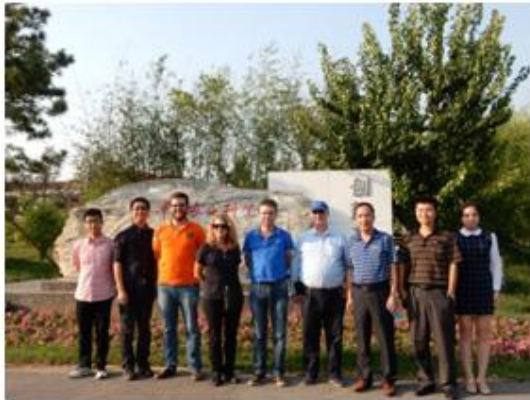
Institution/Company:		Innovation Center and Cooperative.	
Date:	Sep 26 th 2015	Location:	Tianjin –County Innovation Center
Person/s of contact:		Mr. Xue	
Delegation participants:		J. Fernando Bienvenido Cynthia L. Giagnocavo Manuel Berenguel Soria Jorge Sánchez Molina	
Short Description of the Institution/company:		Area of mixed rural development in the peri-urban area of Tianjin. Part time producers cooperative. Production of grapes and vegetables.	
Comments about the visit:		A cooperative created to maintain the agronomical use of the land by part-time farmers (working mainly at Tianjin); it includes a general area of productions mainly for grapes (with external employees) and a specific plot for every member (with free production). It appears that the cooperative was established as a way to compensate certain people with rights in land use due to the transformation of some rural land into urban areas.	



Institution/Company:	Strawberry cooperative.		
Date:	Sep 26 th 2015	Location:	Tianjin –County Innovation Center
Person/s of contact:	Mr. Xue		
Delegation participants:	J. Fernando Bienvenido Cynthia L. Giagnocavo Manuel Berenguel Soria Jorge Sánchez Molina		
Short Description of the Institution/company:	Strawberry cooperative. Demonstration area. Local logistics.		
Comments about the visit:	Visit to a demonstration greenhouse of a cooperative producing strawberries; the shown technology is in the top end of the used technology by members (it is a demonstrative installation), direct selling.		



Institution/Company:	Tianjin Academy of Agricultural Science. Experimental Station		
Date:	Sep 23 rd 2015	Location:	Tianjin
Person/s of contact:	Prof. Zhenfa LI		
Delegation participants:	J. Fernando Bienvenido Cynthia L. Giagnocavo Manuel Berenguel Soria Jorge Sánchez Molina		
Short Description of the Institution/company:	Experimental Station of the TAAS. Visit to the Agricultural Meteorological Installations and laboratory.		
Comments about the visit:	Visit of the large experimental station of the TAAS where some of the experiences related with the agricultural meteorology of TJCC are developed. We saw the different meteorological stations (inside greenhouses and outside) and the lab where data are processed.		



Institution/Company:	NERCITA Experimental Station		
Date:	Sep 30 th 2015	Location:	Beijing
Person/s of contact:	Li Ming		
Delegation participants:	Cynthia L. Giagnocavo Manuel Berenguel Soria Jorge Sánchez Molina		
Short Description of the Institution/company:	Experimental Station of NERCITA. These installations are used in order to test on the fields the different systems developed by NERCITA, as sensors, precision agriculture systems and new machinery.		
Comments about the visit:	Experimental field for Precision Agriculture and sensor testing.		

(* Fulfill a specific table for every technical visit *)

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

Title of the presentation:	Overview of EU and Spanish Agricultural Cooperatives		
Speaker:	Cynthia L. Giagnocavo		
Organization:*	NERCITA		
Date:	Sep 21 st S2015	Location:	Beijing (BAAFS – NERCITA)
Person/s of contact:	Ming LI (NERCITA)		
Short summary of the presentation:	Summary of the state of cooperatives in the EU and in Spain, with a focus on EU comparative production and organisation of the sectors..		
Public:	Restricted to the NERCITA researchers.		

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

Title of the presentation:		Overview of EU and Spanish Agricultural Cooperatives	
Speaker:		Cynthia L. Giagnocavo	
Organization:*		China Good Agri-Products Development & Service Association (CGAPA)	
Date:	Sep 22 nd 2015	Location:	Beijing (CGAPA - CAAS)
Person/s of contact:		Mr. Calvin Teng	
Short summary of the presentation:		Summary of the state of cooperatives in the EU and Spain, with a focus on organisational aspects and regulatory change in order to adapt to globalised markets.	
Public:		CGAPA and NERCITA staff	

Title of the presentation:		Evolution of the Integrated Production in Almeria 2002-2014	
Speaker:		J. Fernando Bienvenido	
Organization:*		China Good Agri-Products Development & Service Association (CGAPA)	
Date:	Sep 22 nd 2015	Location:	Beijing (CGAPA - CAAS)
Person/s of contact:		Mr. Calvin Teng	
Short summary of the presentation:		After defining the Integrated Production normative applied in Almeria, it is described the evolution of its application, monitoring its evolution and final results, as a way to further certification.	
Public:		CGAPA and NERCITA staff	

Title of the presentation:		An Overview of EU and Spanish Agricultural Cooperatives	
Speaker:		Cynthia L. Giagnocavo	
Organization:*		Shandong Agricultural University	
Date:	Sep 23 rd 2015	Location:	Tai'an - SDAU
Person/s of contact:		Prof. Wang Yan'an	
Short summary of the presentation:		General description of the cooperatives in Europe, and the role of cooperatives in agricultural sustainable development.	
Public:		Researchers and students of SDAU (open and published).	

Title of the presentation:		Evolution of the Integrated Production in Europe	
Speaker:		J. Fernando Bienvenido	
Organization:*		Shandong Agricultural University	
Date:	Sep 23 rd 2015	Location:	Tai'an - SDAU
Person/s of contact:		Prof. Wang Yan'an	
Short summary of the presentation:		General presentation of the different Integrated Production normative in Europe by country, region and product. Reasons of the development of the IP labels and their evolution in time.	
Public:		Researchers and students of SDAU (open and published).	

Title of the presentation:	Modelling and control of greenhouses		
Speaker:	Manuel Berenguel Soria & Jorge		
Organization:*	Tianjin Climate Center		
Date:	Sep 27 th 2015	Location:	Tianjin
Person/s of contact:	Director Zhenfa LI		
Short summary of the presentation:	Discussion about the Greenhouse Modelling Models, possible applications in China. Further projects.		
Public:	Partners of the project (TJCC, NERCITA, UAL).		

Title of the presentation:	EU and Spanish Agricultural Cooperatives and new challenges for agriculture		
Speaker:	Cynthia L. Giagnocavo		
Organization:*	Tianjin Climate Center		
Date:	Sep 27 th 2015	Location:	Tianjin
Person/s of contact:	Director Zhenfa LI		
Short summary of the presentation:	Description of agricultural cooperative characteristics and the relationship between technological and organisational innovation.		
Public:	Partners of the project (TJCC, NERCITA, UAL).		

Title of the presentation:	Evolution of the certified production in Almeria, from Integrated Production to specific market certification: role of well designed traceability systems		
Speaker:	J. Fernando Bienvenido		
Organization:*	Joint International Conference on Intelligent Agriculture		
Date:	Sep 28 th 2015	Location:	Beijing (China)
Person/s of contact:	Chair: Chunjiang Zhao		
Short summary of the presentation:	The evolution of the certification of horticultural products in Almeria (Spain) after the implementation of the Integrated Production normative is presented. The development of flexible and powerful traceability tools has permitted the change to different market oriented certifications.		
Public:	Open Conference		

Title of the presentation:	Organizing for Intelligence: the Almeria Agricultural Cooperative Cluster		
Speaker:	Cynthia L. Giagnocavo		
Organization:*	Joint International Conference on Intelligent Agriculture		
Date:	Sep 29 th 2015	Location:	Beijing (China)
Person/s of contact:	Chair: Chunjiang Zhao		
Short summary of the presentation:	Description of the agricultural cooperative cluster in Almeria and the role of cooperatives in R+D+i, change management and as innovation agents.		
Public:	Open Conference		

Title of the presentation:		Greenhouse Technologies Applied to Climate and Irrigation Control in Almeria (Spain)	
Speaker:		Manuel Berenguel Soria	
Organization:*		Joint International Conference on Intelligent Agriculture	
Date:	Sep 29 th 2015	Location:	Beijing (China)
Person/s of contact:		Chair: Chunjiang Zhao	
Short summary of the presentation:		Experiences in Greenhouse Control and Modelling in Almeria.	
Public:		Open Conference	

Title of the presentation:		Integrated Production (IP) in the horticulture of Almeria (Spain)	
Speaker:		J. Fernando Bienvenido	
Organization:*		Plant Protection Institute (Beijing Bureau of Agriculture)	
Date:	Oct 10 th 2015	Location:	Beijing (China)
Person/s of contact:		Chair: Chunjiang Zhao	
Short summary of the presentation:		Description of the main characteristics of the Integrate Production normative: origin, implementation, use of ICT, subsidies and evolution.	
Public:		Plant Protection Institute, NERCITA	

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

4. Summary of the exchange and research developed.

Main results of these stays have been:

a/ Analysis of a set of cooperatives, with different structures, production areas, market orientation and selling strategies. The objective of the visits and analysis were 1) actual structure of advanced cooperatives in China, adaptation to the new market strategies, 2) analyzing the use of ICT by the cooperatives, especially in marketing and sales, quality, traceability and logistic of their products. One important point to highlight is the fact that the visited cooperative are especially advanced, being demonstrative cases for a further development of a competitive and sustainable development of the agriculture in China using ICT. This is especially possible in peri-urban areas near the big cities as stated with the examples. (Main researcher: Prof. Cynthia L. Giagnocavo).

b/ Presentation of the actual state of the cooperatives in Europe, Spain and Almeria; learned lessons and discussion about how experiences can be exchanged by both areas (EU and China). (Main researcher: Prof. Cynthia L. Giagnocavo).

c/ Development of a specialized "Workshop on greenhouse modeling" that was done in Tianjin, with participants of the Tianjin Climate Center (area of Agricultural Meteorology), NERCITA and UAL. The objective of this workshop was sharing the technology of climate simulation into greenhouses developed by the group ARM of the UAL, and its possible

application to the Chinese greenhouses. It is under evaluation the implementation of a specific research project that should be a real result of the TEAP project. During the workshop the models were evaluated using local experimental data. (Main researchers: Prof. Manuel Berenguel Soria and Dr. Zhenfa LI).

d/ Visit to a set of local greenhouses in the Tianjin and Beijing area in order to evaluate the data requirements in order to use the climate simulation programs with adequate accuracy. (Main researchers: Prof. Manuel Berenguel Soria and Dr. Zhenfa LI).

e/ Attendance and presentations at the ICIA 2015 Congress, different groups from China (NERCITA, TJCC and SDAU) and Europe (UPM and UAL) presented some of their actual development related with the TEAP exchange lines.

f/ Annual meeting of the TEAP project, with representation of all the Chinese partners and of three European partners (UPM, UAL and AUA). Main achievements and problems were discussed. Main lines of the Term Report were discussed, including the way to solve actual problems. A new schedule for the next Term was defined; this should be presented with the Term Report (including required changes).



g/ Preparation of the Term Report, next Term recommendation and aggregation of the data from the different participants. (Main researchers: Prof. Fernando Bienvenido, Dr. Ming LI). Result: Set of documents to be delivered to REA for the Term Report.

(* 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 *)



*A Traceability and Early warning system for supply chain of
Agricultural Product: complementarities between EU and China*