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International Association for Agricultural Sustainability

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International Association for Agricultural Sustainability
105 Cecil Street #18-39, The Octagon, Singapore 069534

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Statement of Purpose

International Agriculture Innovation Conference (IAIC) is meant to promote the dynamic exchange of ideas among leading researchers, educators, developers and practitioners who share their research and disseminate innovation in education, business, community, environment and government. IAIC is devoted to presenting and examining various issues that are related to current problems seen in agriculture. Come join International Agriculture Innovation Conference.

2016 International Agriculture Innovation Conference (IAIC)
AGENDA

Day 1 (Nov. 19th)	
Time	
08:00-08:30	Reception & Registration
08:30-08:55	 **Opening Remarks** · **Dr. Lichung Jen** President of Chinese Institute of Business Education Development  · **Dr. Chang-Hsien Yang** Vice-President of National Chung Hsing University, Taiwan  · **Dr. Shih-Torng Ding** Deputy Executive Secretary, Office of Science and Technology, Executive Yuan, R.O.C.(Taiwan)  · **Dr. Lih-Fang Lin** Deputy Director-General, Agriculture & Food Agency Council of Agriculture, Executive Yuan, R.O.C.(Taiwan)  · **Dr. Tzong-Ru (Jiun-Shen) Lee** Professor of Marketing Department, National Chung Hsing University, Taiwan
08:55-09:05	Group Photography
09:05-09:45	**Dr. Cheng-I Wei (USA)** Director of International Programs in Agriculture & Natural Resources at University of Maryland, USA **Keynote Speech: Innovation in Agriculture during Challenging Times**
09:45-10:05	**Mrs. Hung-His Lee (Taiwan)** Deputy Director-General, Department of Science and Technology, Council of Agriculture, Executive Yuan, R.O.C.(Taiwan) **Topic: Innovative Technology and Business Model of Agriculture in Taiwan**
10:05-10:25	**Dr. Pamela Rae Becker (USA)** Professor of Technology Management, School of Technology & Professional Services Management, Eastern Michigan University, USA **Topic: Agricultural Recreation and B&B Business**

10:25-10:40	Tea Break	
10:40-11:00	**Dr. Akio Takenaka (Japan)** Deputy Director, Food and Fertilizer Technology Center for ASPAC **Topic: New Aspects of Animal Science Research - Contribution to the Medical Field**	
11:00-11:20	**Dr. Pekka Antero Kess (Finland)** Professor of Industrial Engineering and Management , University of Oulu, Finland **Topic: The Innovation of Berry Industry**	
11:20-11:40	**Dr. Miranda Mirosa (New Zealand)** Senior Lecturer of Department of Food Science, University of Otago, New Zealand **Topic: Postharvest Food Loss and Waste across the Supply Chain: Issues and Innovations**	
11:40-12:00	**Dr. Pairach Piboonrungroj (Thailand)** Director of Supply Chain Economics Research Centre (SCERC), Faculty of Economics, Chiang Mai University, Thailand **Topic: Supply Chain Innovations: Trends and Challenges in Agriculture**	
12:00-12:20	**Dr. Tian Zhu Zhang (China)** Professor of Agrobiological Environmental Engineering, China Agricultural University, China (CAU); General Manager of Beijing Futong Environmental Engineering Co., Ltd. **Topic: Innovation of Efficient Agriculture Development Pattern in Mainland China**	
12:20-13:30	Lunch	
13:30-15:30	**Paper Presentation**	**Presenter**
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	The Study on Consumption of Organic Food	Min-Jhih Cheng
	Systematic Planning of Logistics Centers: Distribution System of Agricultural Products in Taiwan	Yenming J. Chen
	Improving Traditional Market Development and Transformation	Mei-Hsiang Yang
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Huanshan Trbal Village Visit：https://goo.gl/w88xZH

Conference Members

Conference Chair

Tzong-Ru (Jiun-Shen) Lee

PhD. of Texas A&M University
Professor of Marketing Department, National Chung Hsing University, Taiwan
Honorary Director, Supply Chain Economics Research Centre(SCERC), Chiang Mai University, Thailand
Associate Editor, International Journal of Green Computing(IJGC)
Associate Editor, European Business Review
Editorial Board Member, International Journal of Electronic Customer Relationship Management (IJECRM)
Editorial Board Member, International Journal of Logistics Economics and Globalization (IJLEG)
Editorial Board Member, International Journal of Intercultural Information Management
Committee Member, Electronic Commerce Studies
Editor-in-chief, Communications of IIMA

Conference Co-Chair

Li-Chung Jen

Ph.D. Ohio State University
Director, Global Branding and Marketing Research Center, National Taiwan University
Professor of Marketing, Department of International Business, National Taiwan University
Professor of Statistics, Master Program in Statistics, National Taiwan University
Chief Secretary, Taiwan Institute of Marketing Science
Editor, Taiwan Journal of Marketing Science
Chairman, Taiwan Institute of International Business Studies
Chairman, Chinese Applied Statistics Association
Chairman, Chinese Institute of Business Education Development

Conference Executive Director

Kuo-Chang Fu

Secretary-General of Chinese Institute of Business Education Development, Taiwan
Academic Committee Chairman of National Taiwan University of EMBA Alumni Foudation, Taiwan
Executive Committee of Chinese Institute of Business Administration, China
Co-Founder of Global Chinese Marketing Federation, Singapore

Consultant

Dr. Homin Chen

Current Position

Distinguished Professor of International Business, College of Management, National Taiwan University

Convenor, Management Division 1, Ministry of Science and Technology

Chairman, Chunghwa Negotiation Management Society

Honorary Chairman, Taiwan Institute of Marketing Science Review Committee member, Taiwan National Quality Award

Education

Ph.D. 1995, National Taiwan University

MS. 1991, University of Iowa

MBA 1983, Tamkang University

B.E. 1979, Tamkang University, Chemical Engineering

Research Fields

International Marketing

Foreign Direct Investment

Strategic Alliances

Global Branding

Academic and Professional Experiences

President of Commerce Development Research Institute (2010-2012)
Chairman, Taiwan Institute of Marketing Science (2008-2011)

Dean, College of Social Science and Management, NCHU (2002-2004)

Chairman, Department of Business Administration, NCHU (2000-2002)

Professor of International Business, National Chi Nan University (1999-2000)

Associate Professor of International Business, National Chi Nan University (1995-1999)

Mr. Muh-Rong Su

Education

Master of Science in Agronomy, National Chung Hsing University, College of Agriculture & Natural Resource, Taichung City

Present Experience

Chief Executive Officer, Tse-Xin Organic Agriculture Foundation, Taipei City
Organic Science and Technology Planning Review Committee Member, Council of Agriculture, Executive Yuan, Taipei City
Director, Chinese Sustainable Agriculture Association, Taichung City
Director, Taiwan Arboriculture Society, Taipei City
Project Manager, Organic Agriculture Development in the Indigenous Community of Dongpu Yushan National Park, Nantou County
Project Manager, Organic Paddy Cultivation in the Indigenous Community of Nanan Yushan National Park, Nantou County

Dr. Shen-Cien Lo

Ph. D. of Life Sciences, National Chung Hsing University
Chief of Crop Improvement Section, Taitung District Agricultural Research and Extension Station
Assistant Professor, Horticultural Department, National Taitung Junior College

Dr. Yun-Han Chao

Ph.D. Chung Hua University
Lecturer, Taipei City Vocational Development Institute
Adjunct Assistant Professor, National United University (Taiwan)
Adjunct Assistant Professor, Chihlee University of Technology (Taiwan)

Keynote Speaker

Dr. Cheng-I Wei

Director of International Programs in the College of Agriculture and Natural Resources

Dr. Cheng-I Wei is the former Dean of the College of Agriculture and Natural Resources and Director of the Maryland Agricultural Experiment Station and University of Maryland Extension at the University of Maryland. He assumed the current position as International Programs Director in November, 2015 following a two-term, 10-year service as the dean and director. Prior to coming to Maryland, Dr. Wei served as Associate Dean for Research and Graduate Studies of the College of Human Environmental Sciences at Oklahoma State University, as well as Interim Head of the Department of Nutritional Sciences. He was Bruno Professor and Head of the Department of Nutrition and Food Sciences at Auburn University, Alabama, for four years. During his tenure at University of Florida, Gainesville, he advanced through the ranks from assistant professor to associate professor to full professor in the Food Science and Human Nutrition Department where he taught "Food Toxicology and Foodborne Infections" and "Seafood Technology."

Dr. Wei received his B.S. in biology from the Tunghai University of Taiwan in 1970, an M.S. in medical microbiology from National Taiwan University in 1972, and a Ph.D. in microbiology from the University of California-Davis in 1979. His research interests are in food microbiology and safety, toxicology, and immunotoxicology. He has secured over $11 million in external funds to support his research and published 207 refereed papers.

Under his leadership, the College of Agriculture and Natural Resources has established the successful Department of Environmental Science and Technology, Center for Food Safety and Security Systems, the Agriculture Law Education Initiative, and the 2+2 Undergraduate Transfer Program with four Chinese universities. The enrollment of undergraduate students

in the college increased from 916 in FY 2005 to 1226 in FY 2015, and the extramural funding increased from 19 million to 35 million.

Brief introduction

1. To discuss the challenges of agribusiness in response to global population increase and associated agricultural production issues such as climate change, environmental and natural resources sustainability, the emergence of new plant and livestock diseases, concerns about food safety and nutritional security, consumer perceptions about GMO products, and the state of agricultural science education
2. Innovation in biotechnology research, genetic engineering, product development and branding, big data knowledge and e-marketing, and promotion of effective communications between food companies, consumers, and government agencies have greatly helped the agribusiness in dealing with these challenges.
3. However, consumers still have concerns regarding the safety and environmental impacts of agriculture innovation technologies.
4. For effectual communications in addressing these important societal issues relevant to agricultural innovation, a team composed of academics, government agencies, industries, non-governmental organizations, media, and consumer groups should adopt a concerted effort to focus on transparency, science-based and ethical judgements, and flexible actions in order to achieve maximal mutual benefits.

Special Speaker

Mrs. Hung-His Lee

Deputy Director-General, Department of Science and Technology, Council of Agriculture, Executive Yuan, R.O.C.(Taiwan)

Working Experience:

2012.05-Present	Deputy Director General of Department of Science and Technology, COA
2012.01-2012.05	Division Chief of S&T Administration, Dept. of Science and Technology, COA
2004.01-2012.01	Division Chief of Technology Service, Dept. of Science and Technology, COA

Awards:

1. Being elected to be the yearly model public servant of Council of Agriculture in 2006
2. The proposal 'Promoting the non-compulsory certification system of pests-free plant seeds and seedlings' was given the prize of 'Promotion the participation of giving suggestions' of the Executive Yuan in 2003
3. Research report 'Study on the improvement of healthy seeds and seedlings system in Taiwan' was given the prize of 'Excellence Research Award' of the Executive Yuan in 2001

Brief Introduction:

Taiwan agriculture, with advantages of scientific achievement and ICT technology industry, has its own coping strategies for planet and food crisis. This present, under the theme

of ‘Protecting our planet is a way to protect our food’, shows some innovative technologies and business models to illustrate their strategies.

Speaking of biological diversity, farming of clown fish and sea horse could help reduce overfishing in the world’s oceans. In Hualien, east of Taiwan, the movement of Satoyama Initiative leads a balance between agro-biodiversity, food and livelihood. In terms of reducing waste, fish scales from fish processing are reused to make higher valued products. And a pig farmer use local sub-quality vegetables to feed pigs, and successfully promote his brand. Talking about save energy, Solar Farm Company, producing green energy, educates customer environment and food knowledge, and runs a farm business.

In terms of food security, duck and tilapia breeds could raise production. And a company integrates field management, consulting and market information to offer cloud analysis for farmer’s cultivation plan. To ensure food safety, bio-pesticides, BaPMB01, could control bacterial wilt in tomato to reduce chemical residues. And a bioassay technology could test 71 pesticides and 11 fungicides within 3 minutes. In addition, food processing technologies and business model create great food from ordinary food.

Those innovative technologies and business models in Taiwan rise up value of agriculture products and increase farmers’ income, while we also protect our environment and ensure food safety.

Dr. Pamela Rae Becker

Dr. Pamela Becker has been employed at Eastern Michigan University since 1993. She is a full professor in the School of Technology and Professional Services Management. She currently teaches within the Technology Management undergraduate program, the Technology

Studies graduate program and the PhD in Technology program at EMU. Prior to this, she served as the Director of the School of Technology and Professional Services Management and the coordinator of the undergraduate Technology Management program. She was the primary researcher and developer of the Technology Management program, which was approved in 2001 and had its first program graduates in 2004.

Dr. Becker received her Associate degree from Washtenaw Community College, and a Bachelor of Science in Administration from the University of Michigan with dual majors in Managerial Economics and Finance, and Marketing. She completed this while being employed full-time at General Motors Corporation. When the General Motors Willow Run Facility closed she decided to pursue an academic career and continued studies at the graduate level. Pamela now holds a MLS in Technology degree from EMU with concentrations in Technology Management and Adult Education and in 2008 she completed the doctorate program in Educational Leadership with a cognate in Technology Management.

Her research interests include International Management of Technology, Technology Management, Workforce Development, Women in Technology, and Online Teaching.

She recently co-authored a science textbook, titled "Understanding Technology" and she received a Faculty Research Fellowship in 2016. She has numerous teaching and service awards, including Outstanding Faculty Award, 2009, Outstanding Faculty in Classroom Instruction, 2008, and Lecturers Outstanding Teaching Award, 2003.

Speech Introduction:

Dr. Becker will be speaking about new models of business innovation that enhance and capitalize on relationship building with regional businesses may benefit small farmers. Regional farmers associations, agricultural cooperatives, marketing associations and similar units can play key roles in the development of these relationships that are mutually beneficial to all parties. Access to information and capital may also be improved with the development of these relationships. Sustainable practices that are collaborative in nature can be of benefit to many small farmers and regional businesses. For example, the integration of sustainable agricultural tourism allows a region to capitalize on existing rural attributes while adding a leisure component to traditional agricultural practices.

Dr. Akio Takenaka

Degrees:

1978 BSc University of Tokyo

1981 MSc University of Tokyo

1988 Ph D University of Tokyo

Academic Awards:

Technical Award of Japan Scientific Feeds Association (JSFA) 2013 (http://kashikyo.lin.gr.jp/hyosho/gijyutusyo.html)

Professional Organizations:

Japanese Society for Rumen Metabolism and Physiology, Vice-President (http://jsrmp.web.fc2.com/)

The Japanese Society of Animal Hygiene, Governor

Japanese Society for Animal Nutrition and Metabolism, Governor

Japan Society for Bioscience, Biotechnology, and Agrochemistry

The Japanese Biochemical Society

Japanese Society of Animal Science

The leader of executive member at the annual meeting of JSAS in 2014

Japanese Cellulase Society

Japanese Society of Clinical Biochemistry on Biogas Analysis

Japan Pig Veterinary Society

2010 April 7th-9th: Member of Senior Officials' Meeting, Global Research Alliance on Agricultural Greenhouse Gases, Wellington, New Zealand

2013 April-2016 March: Council member of Agricultural Materials, MAFF

2014 April-2016 March: Chairman of feed nutrient sectional meeting, Council of Agricultural Materials, MAFF

Brief Introduction:

Deputy Director, Food and Fertilizer Technology Center (FFTC), Taipei, Taiwan ROC

The number of livestock farmers, especially pig farms, has been decreasing rapidly in Japan. The number of pig farms is now about 5,000, which is one-tenth of the figure from 40 years ago. The reason in the decrease in the number of farmers is thought to be intensified because of international competition, aging of farmers, volatility of feed prices, and the spread of animal diseases. On the other hand, the technological advances relating to animal science such as cloning and gene manipulation is remarkable, especially NBT (New Breeding Techniques) including genome editing, which has the potential to greatly change the world of animal science. It will also be meaningful to search for a new direction in livestock utilization through these techniques. I have been in the National Institute of Agrobiological Sciences (NIAS) for two years from 2014, and the researchers in this institute have made many results about new directions of livestock usage. I would like to explain about transgenic pigs for medical model animals and a new regenerative medical material using animal products. I will also mention about artificial insemination (AI) and embryo transfer techniques which were established as innovative techniques a long time ago and have become used generally in farm levels.

Dr. Pekka Antero Kess

Pekka Kess (Dr Sc, Dr Eng) is a Professor of industrial engineering and management at the University of Oulu, Finland. He received his Dr of Science degree at the University of

Oulu and Dr of Engineering at Kasetsart University.

Professor Kess has an extensive managerial experience from both universities and industrial enterprises. He has worked in managerial positions in chemical, steel and electronics industries, as well as in the software business.

He has been an active project evaluator for the European Commission, as well as a manager of international research and development projects. His research areas cover smart cities, business ecosystems, strategic management, production organisations, and knowledge management with specialisation in knowledge transfer and e-learning. New are of interest is the business opportunities based on natural forest based resources.

He has supervised more than 300 graduate and close to 30 doctoral students in the area of Industrial Engineering and Management.

Professor Kess has collaborated with Asian universities closely in the areas of research and education and services to the society.

Brief introduction: The Innovation of Berry Industry

Finland among other Nordic countries has important natural resources growing in the forests: the wild berries. The Nordic berries are very rich in polyphenols and antioxidants in addition to large number of various vitamins making them a very healthy food – real superfood. These qualities make them a potentially interesting product group in global markets – not limited to the domestic and the Asian markets.

The traditional use of berries has been as juices and jams. These have been a practical way to preserve the berries throughout the year when the harvesting season itself is very short – only a few weeks.

New product types products have entered the markets and with growing number of new and different customer groups and their specific needs will give an opportunity to new types of berry products. This really asks for innovation in the berry industry.

The presentation will look at new products, at new business models and at new ways in which berry industry could grow from the Nordic European countries to the vast global markets.

Dr. Miranda Mirosa

Dr Mirosa is the Director for the Consumer Food Science Programme and a Senior Lecturer in the Department of Food Science, University of Otago, New Zealand (NZ). Dr Mirosa currently holds a NZ/China Postharvest Loss and Food Waste Research Fellowship, funded by the NZ Ministry for Primary Industries. Dr Mirosa's research focusses on food waste hotspots, aims to understand reasons for wasteful practices, and provides recommendations on minimisation. Dr Mirosa is regularly asked to provide policy advice and consultancies (and was the NZ delegate at the 2015 *APEC Food Security Workshop*, China). In 2016, Miranda was invited to join the APEC project '*Strengthening Public-Private Partnership to Reduce Food Losses*'. Her research expertise has been sought by organisations in civil society who are committed to reducing food waste (for example she sits on the Technical Working Group for the NZ National Food Waste Prevention Project). Her research profile is built on publications in the world's leading consumer food, sustainability and nutrition journals including: '*Appetite', 'J of Food Quality Preference', 'J of Nutrition and Dietetics', 'J of the Academy of Nutrition and Dietetics', 'J of Environmental Policy & Planning' and 'British Food J'*. Funding from 21 separate competitive research grants and consultancies highlights recognition of her research. In 2015, Dr Mirosa led a grant for developing NZ/China collaborations in food safety and security science. As Principle Investigator, she led a team of 13 NZ scientists from 7 different institutes to China to partake in a conference and industry visits. Dr Mirosa serves as an Editorial Board Member for '*J of Food Ethics*' and '*Beverages*'. She is a Professional Member of the Institute of Food Science and Technology, a partner of the NZ Food Safety Research Centre, and a member of the New Zealand/China Food Safety Protection Network.

Brief Introduction:

30-50% of all food produced on this planet is wasted. Recovering half of this would feed the world. With one in nine people hungry this is scandalous. As well as identifying why food waste matters, this presentation highlights waste hotspots along the supply chain, showcases current innovative reduction initiatives and makes calls for collaborative and international business-academia-government action.

Dr. Pairach Piboonrungroj

Dr. Pairach Piboonrungroj is now the director of Supply Chain Economic Research Centre (SCERC) in Thailand. Dr. Pairach studied a PhD in Logistics and Supply Chain Management at the Logistics Systems Dynamics Group of Cardiff University. His multiple-awarded PhD research aims to explain relationships in tourism supply chain via lens of transaction cost economics using a statistical technique called structural equation model (SEM). He was awarded an MSc (distinction) in Logistics and Operations Management from Cardiff University in 2009. His studies in Cardiff have been fully supported by the Royal Thai Governments scholarship, which was awarded from a national competition. In 2005, he got a Bachelor of Economics (First-class honour) from Chiang Mai University (Thailand). Dr. Pairach has involved in a number of research projects in tourism economics and logistics as well as consultancy works to various organisations such as The World Bank and Thailand Ministry of Tourism and Sports. He is also an ad-hoc reviewer for several journals and conferences such as Tourism Management, European Journal of Operational Research, Journal of Service Management, Academy of Management Conference, and British Academy of Management Conference. Dr. Pairach is also an R enthusiast, co-founder of R User Groups in Cardiff (Cardiff-R) in the UK and Chiang Mai (ChiangMaiR), in Thailand. His underlying

research theme is an application of economics theories and techniques to logistics and supply chain management.

Speech Introduction:

The speech of Dr Pairach Piboonrungroj is titled “Supply Chain Innovation: Trends and Challenges in Agriculture”. The speech aims to highlight the key trends in supply chain innovation assembled from the industrial insights and supply chain experts’ opinion. The speech will discuss each supply chain innovation trend in relation to the application in the Agricultural industry with specific insights from Thailand current policy on Innovation in Agriculture, which is a part of “Thailand 4.0” initiative of the current Thai government.

Papers Publication

Shen-Cien Lo

Indentification of of Taiwan Native Phalaenopsis and Photosynthetic Characteristics

To identify the fake for the real Taiwan original phalaenopsis is mainly basis on the appearance of its lip midlobe and on the shape of its callus between the lip midlobe and lateral lobes. T1, T2, T3, and T4 are species collected from commercial cultivation. T5 and T6 were collected from Lan-yeu in the 1960s and then have been acclimated for several asexual propagation. T7 and T8 are asexual propagation species which are planting as epiphytes on lougan tree in Da-Zin Mountain. T9 has been defined as Phalaenopsis amabilis (L.) BL. Among these nine species, it has been affirmed that T9 belongs to the family of Phalaenopsis amabilis (L.) BL. The lip midlobe of T2 and T7 is similar to that of Phalaenopsis aphrodite Rchb.f. but their callus is not similar to that of aphrodite, which has a callus of four erect teeth. Other species (T1, T3, T4, T5, T6, and T8) is like Phalaenopsis amabilis (L.)BL having a cross-stick midlobe. However, their callus is different from that of amabilis, in shape of shied edage. it is one pair of blunt teeth. Apparently, Taiwan original phalaenopsis has features of both Phalaenopsis amabilis (L.) BL and Phalaenopsis aphrodite Rchb.f. and it seems to be a unique local species in Taiwan.

A Randam Amplified Polymorphic DNA (RAPD) analysis was used to understand the thylogenetic relationship of taxonomy and evolution among 9 native species of phalaenopsis. Result showed that stable similarity coefficient and relative order were obtained when 24 primers had been analyzed. In addition, the result derived from the comparison between dendrogram generated by RAPD observed by characteristic that the evolutionary tendency of phalaenopsis, its origine seems to be polyphyletic. The dendrogram resulting from unweight pair group method with arithmetic averages cluster analysis using the NTSYS program separated the native phalaenopsis into three groups by using CT81/CT82/CT85/ CT86 primer. The first group had four species of T1,T2,T3,T5. The second group includes T4,T6,T7,T8, the third group T9. Otherwise using CT81/CT85/CT86 primers, also separated native phalaenopsis into three groups. The first group had five species of T1,T4,T6,T7,T8. The second group includes T2,T3,T5. The third group T9.

With regards to Phalaenopsis amabilis (L.) BL., its seeding, medium, and adult are obligate CAM plants. Its bottle seedlings are C_3-CAM plants. The stomatal distribution of the adaxial epidermis and of the abaxial epidermis are obviously different. The stomatal density of

the former is 2.8±0.9/㎜^{2}, and the stomatal density of the latter is 26.2±3.6/㎜^{2}. The stomatal frequency on both side differ about one to ten. The stoma opening of Phalaenopsis amabilis (L.) BL. is different from general C_3 and C_4 plants, it is open in night. The stomata are closed from 10am to 6pm and keep opened to 10 o'clock in the next morning. The stomata of the adaxial epidermis are 100% opened at 2am, and the pore size is about 3.87μm. The stomata of the abaxial epidermis are 100% opened at 8pm and 4am. The pore size of the lower epidermis opening at 8pm. is 4.06μm, and the pore size of the ones opening at 2am is 4.59μm. The stomata open to stabilize CO_2 at night and close to photosynthesize in the morning.

The photosynthetic light saturation point of the five-years old of Phalaenopsis amabilis (L.) BL. is 400μmol/m^{2}s. The CO_2 fixation diel rate is 0.16μmol/m^{2}s. The photosynthesis of Phalaenopsis amabilis (L.) BL. has typical alteration of diurnal rhythm. The dark period begins from 6pm to 6am the next day, and it is the main period for CO_2 fixation. At 2am, the CO_2 assimilation reaches 3.2μmol/m^{2}s, and stomatal conductance keep at 0.54~0.56m mol/m^{2}s. At 6am, the CO_2 assimilation decrease to -0.03μmol/m^{2}s, and the stomatal conductance reaches its highest, 0.88μmol/m^{2}s. About the bottle seedlings of Phalaenopsis, their$\delta^{13}C$ is -19.5‰~ 21.4‰ and is belong to C_3-CAM plants. PEPC is enzyme activity 0.118μmol/hr/mg protein in daytime and 0.018μmol/hr/mg protein at nighttime. However, the activity of RuBPC is 0.033μmol/hr/mg protein in nighttime and is higher than daytime 0.014μmol/hr/mg. The $\delta^{13}C$ of the small, medium, and large seedlings is -13.2‰, -12.3‰, and -12.4 ‰, respectively. They belong to CAM type, whose PEPC enzyme activity is high at night. The$\delta^{13}C$ of petals of Phalaenopsis amabilis (L.) BL is -13.5‰, belonging to CAM type, too.

Min-Jhih Cheng

The Study on Consumption of Organic Food: The Application of Decomposed Theory of Planned Behavior

Organic food is an achievement of agricultural scientific and technological innovations in order to achieve environmental protection specially, agricultural soil. This study employed the decomposed theory of planned behavior (DTPB) to analyze the antecedent factors that influence consumer's intention of purchasing organic food by constructing attitude, the subjective norms, and the perceived behavioral control beliefs based on DTPB. We collected 441 questionnaires analyzed using the structural equation model. The results indicate that consumers with ethical consciousness will consider environmental protection when they make food purchasing decisions, and have a comparatively positive attitude towards the purchase of organic food. One of the main motives for purchasing organic food is the requirement that food ingredients are safe and natural.

Yenming J. Chen

Systematic Planning of Logistics Centers: Distribution System of Agricultural Products in Taiwan

This study aims to employ scientific management methods to determine the appropriate number of regional agricultural logistics centers required to be established in Taiwan, as well as the classification of and cooperation modes for these logistics centers. We recommend the most profitable model in discussing the plan of establishing logistics center systems in agricultural production areas from a realistic perspective.

Mei-Hsiang Yang

Improving Traditional Market Development and Transformation

Even though the economy of the traditional markets has been shrinking, Taiwan government has constantly tried to improve the economy of the traditional markets by improving its competitiveness and transformation. Many successful five-star traditional markets in Taiwan have upgraded hardware facilities and planned the surrounding environment. The research of this study combines the government-driven volunteer policy and the popular redemption point exchange mechanism into the traditional markets to build a people-oriented win-win situation.

Wei-Shuo Lo

The Agri-Food Supply Chain in Hospitality and Tourism

In this paper is to explore how the sustainable supply chain management can be applying into hospitality and tourism industry, and then to explain why the agri-food plays an important role from farm to table. The agri-food is characterized by long and complex supply chains for the delivery of diverse products, including vegetables, fruits, rice, fish and other horticultural produce. However, the agri-food is fully value in whole supply chain, especially; the growing process is containing different knowledge of food from farm to table. Therefore, the agri-food provides a local humanity and living culture diversity, this is making destination well identify for preventing environment, enhancing local economics, and then attracting more tourists come for travel, and experiences what local agri-food in style meals in hospitality services.

Zilin Wu

Fresh Agriculture Products Cold Chain Optimization Benefits

With the in-depth study of the logistics, cold chain logistics more and more attention of many scholars at home and abroad. There are many documents from the key controlling factor, development strategy, the development trend of cold chain logistics and other aspects of the cold chain were studied. Refrigerated storage and sales process paper examines vegetables, fruits and other items. In the refrigerated storage of these items in the process, with the extension of storage time, cold chain inventory costs (including refrigeration costs, inventory management, etc.) are generally increasing linearly with time; also stored for a period of time, there will be articles and other reasons due to dry mass loss, resulting in cost penalty. It is generally preferable to mass loss rate (per unit of time the total cargo damage the quality of goods quality ratio) is constant. The market price is generally linear rise slowly, and then gradually decline, changes in the sales price of approximately linear. Based on this actual situation, the paper constructed a mathematical model to profit after the stock sold out the biggest target, the best time for decision variables listed, given the model solution, and a numerical example.

Mei-Hsiang Yang

Good Character Education and the Impact of Management

"Good Character Movement" and "Good Character Education Promotion Program" have promoted in Taiwan Since 2000. Most of the teachers, parents, and entrepreneurs have considered that many young people in the modern age do not have responsibility and good character performance; therefore, character education has implemented by many entrepreneurs. The entrepreneurs have improved the employees' characters performance by asking their employees to participate in environmental public welfare activities, clean beaches, clean mountains, and see the films of character performace. In order to achieve the aim of this study, literature review and participation and observation were applied as tools for data collection. According to the results, personal character performance is closely related to the efficiency and management performance.

2017 INTERNATIONAL AGRICULTURE INNOVATION CONFERENCE(IAIC 2017)

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The worldwide governments have been proactively and aggressively engaging in utilizing the social enterprise in combination with business mode to facilitate the product innovation in line with community entrepreneurship, which further helps accelerate the agriculture innovation in addition to industrial upgrading. By implementing the aforementioned measures, it does not merely resolve the intractable societal conundrum but further boosts the employment opportunities and economic development, which is in relation to the fundamental rationale that we designate “Utilizing Social Enterprise to Facilitate the Agriculture Innovation” as the theme for 2016 International Agriculture Innovation Conference.

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Contacts

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