

FEBURARY 1 2016

VOLUME 15 ISSUE 1

Association of Overseas
Chinese Agricultural,
Biological and Food
Engineers

海外华人农业、生物与 食品工程师协会 (AOCABFE)

PRESIDENT'S INTERVIEW



Dr. Lie Tang is an Associate Professor in the Department of Agricultural and Biosystems Engineering at Iowa State University. He received his Master's degree from Zhejiang University in 1994 and Ph.D. from University of Illinois at Urbana-Champaign (UIUC) in 2002, both in Agricultural Engineering. After graduation, he first joined the Royal Veterinary and Agricultural University in Denmark and later Wageningen University in the Netherlands as an Assistant Professor. In 2004, he decid-

ed to join Iowa State University (ISU) in U.S. He has devoted his career to advanced sensing, optimization, machine intelligence and robotic technologies for agricultural production systems and high-throughput phenotyping systems.

Dr. Tang joined AOC when he was a graduate student at UIUC. After being a faculty member at ISU, he served as the web chair and vice president before being elected president in 2015. As AOC president, he has been taking the lead in making the organization a better international platform for agricultural, biological, and food engineers of Chinese origin. When asked about the challenges of this position, he responded that multitasking and time management are the biggest challenges, which is probably the same for all our board members, and having the board work effectively and efficiently is also crucial. Currently he is working with the board members to ensure the execution of all important functions of the organization and particularly to make sure new initiatives such as AOC Fellow and AOC Institutional Membership programs will be implemented properly. He said the board has noticed some financial challenges to the long-term sustainability of

Inside this issue: President's Interview 1 **ADC Fellow Nomination** 3 Instructions ADC Fellow Nomination Form 5 AOC IMPACT Editors 7 **ADC** meeting minutes 9 **SAC** meeting minutes 10 Anniversary of China Agri-11 cultural University News from members —Dr. 14 Zhiming QI News from members —Dr. 15 Da-Wen Sun Agricultural difference 16 between China and US

the organization and is taking measures to expand our funding sources and control our expenses. "The board will also carefully evaluate our award programs and make some appropriate adjustments to enhance the financial sustainability of these important programs", he said. Institutional members have started to make important contributions to our organization and the board has formed a sub-committee, led by Dr. Changying Li and Liping Chen, to promote the program and ensure that AOC will deliver the promises made to our institutional members. He also commented that the AOC website is the most useful platform to facilitate collaborations and broadcast information and the needs of our members. He said that Dr. Zifei Liu has been directing the web page development, and since then, outdated information has been replaced with more current material and it is being updated more frequently. Dr. Tang believes in the importance of the AOC website because it showcases our organization to the world while serving many important functions for our members, which is vitally important for maintaining the healthy growth of AOC.

For AOC students, Dr. Tang wants to share some advice from his own experience. Having studied and taught in both Europe and the US, he says that European graduate programs have much less coursework, giving students more time to focus on their research projects; while in the U.S. graduate students are required to take a substantial amount of coursework, often leading to a more demanding program. Dr. Tang encourages graduate students to selectively take more courses to expand their knowledge base related to their research and professional career. The more you know the more you know what you don't know; and the more you know the more creative and thorough thoughts you will have. He believes in hard work, creative and rigorous thinking and he appreciates simple and smart solutions. Dr. Tang is a big fan of sports (particularly soccer and badminton) and he suggests that students would do well to play sports and exercise regularly. "Body is the foundation. If you don't have a healthy body, it affects everything you do." At the end of the interview, Dr. Tang encouraged AOC students to engage in service for our organization, as it will provide valuable experience for students' successful professional development.

AOCABFE FELLOW

Instructions for Submitting Fellow Nominations

Characteristics of a Fellow

"A **Fellow** of the Society is an honor conferred for exceptional achievement by a Member of the Association in any one or more of the following areas - research, technology development, technology transfer, teaching, extension, consultancy, senior administration and communication, which advance the profession of agricultural, food, or biological engineering in its broad application and a minimum of 10 years as a Member in AOCABFE."

Elements of Nomination

To nominate an AOCABFE Member for the Grade of Fellow, the initiating sponsor shall provide AOCABFE executive board with the information outlined below by **April 15**. Qualifications for Fellow are described in the Bylaws and Rules of AOCABFE, Article B5, Qualifications for Admission, Paragraph 3 (see http://www.aoc-web.org/constitution.html).

The Nomination Form is to be completed and converted to a PDF file and submitted to AOCABFE executive board as an e-mail attachment to the attention of the AOCABFE Secretary, Zifei Liu –<u>zifeiliu@ksu.edu</u>. The maximum length of the completed nomination form is four (4) pages (10 pt. or larger font).

Please use the Nomination Form for submitting the application. The form completed by the nominator, and five (5) letters of support. Please follow the instructions for the letters of support described below. The support letters may be sent with the Nomination Form as a PDF file or may be sent separately to the attention of AOCABFE Secretary, Zifei Liu –zifeiliu@ksu.edu.

Each letter of support is also to be submitted as a PDF file and sent as an email attachment to the attention of the AOCABFE Secretary, Zifei Liu -zifeiliu@ksu.edu. The letters of support need to include the authors name, work affiliation, address, phone number, e-mail address.

All e-mailed nomination forms and letters of support sent to AOCABFE executive board must have a send time before midnight of April 15.

Letters of Support

The letters of support are to be prepared by those who are broadly representative of the profession insofar as technical interest, occupation and professional responsibility are concerned. The supporting letters shall relate the writer's personal knowledge and evaluation of the candidate's achievements, recognitions and professional activities. Letters are limited to a maximum length of two pages (10 pt. font or larger). The following guidelines are provided for developing a well-structured letter of support.

DO INCLUDE in the Letter of Support:

- 1. First the author is to briefly state his/her own background, credentials, current employment and the employment most applicable for the relationship with the nominee.
- Summarize personal knowledge about the nominee and the circumstances under which the nominee was known, including the length of time the author has known and/or worked with the nominee.
- 3. Focus on the unique contributions that the nominee has made to the profession.
- 4. Describe the nominee's personality, work ethic and teamwork skills, particularly in relationship to professional contributions made by the nominee.
- 5. Cover each point of support clearly, but as concisely as possible.
- 6. Keep the letter focused and make it no longer than two (2) pages (10 pt. font or larger).
- 7. Each author is to provide complete author contact information and be on official stationary where possible.

DO NOT INCLUDE in the Letter of Support:

- 1. Do not restate information that is already included in the completed nomination form.
- 2. Do not describe participation in religious organizations or political parties.
- 3. Do not exceed the specified maximum length of the letter.
- 4. Do not include information obtained from someone else about the nominee.

Notification of Election

The nominator of the Fellow nominee shall be notified by AOCABFE executive board after the nominee has been recommended by the Fellows Committee and elected to the Grade of Fellow by the AOCABFE executive board. If the nominee is not selected in the first year of consideration, the nominee will be considered by the Fellows Committee for two additional years. AOCABFE executive board will notify individuals elected to Fellow. News releases and publicity will be issued at the time of the Annual Meeting at which time the newly-elected Fellows will be accorded special recognition.

Procedure in Case of Death of Nominee

If a Fellow nominee should die after the nomination is submitted to AOCABFE executive board, that nomination will be considered as if the nominee were still alive with the nominee remaining eligible for election to Fellow for the two year period mentioned above in addition to the first year of consideration. Nominations of deceased A AOCABFE members for Fellow cannot be accepted.



GRADE OF FELLOW

(Nomination due by April 15, 2016)

The following AOCABFE FELLOW NOMINATION FORM can be downloaded from AOC'S website http://www.aoc-web.org/

AOCABFE: The Association of Overseas Chinese Agricultural Biological Food Engineers

NOMINATION FORM

PRIVILEGED INFORMATION

Note: This form, along with the 5 letters of support will provide the only information used for the evaluation of your candidate. The form must be completed in a <u>maximum of 4-typewritten pages (10 pt. font or larger).</u>

- 1 Candidate Name (first name, middle name or initial, last name), Address, Phone Number, E-mail Address and Years of AOCABFE Membership:
- 2 Primary Employment Position and Institution/Company:
- **Education** (list all degrees earned, dates, major fields, and institutions):
- 5 Areas of Specialization:
- 6 Specific Outstanding Technical and Professional Accomplishments and Contributions Meriting Election to the Grade of Fellow. Examples:

Publication of important, original engineering or engineering-related papers, books or inventions

Technical direction with evidence of accomplishment of important engineering or engineering related work

Creative contributions to the advancement of the profession

Establishment or furtherance of important engineering or engineering-related courses or significant contributions to engineering or engineering-related extension

Organizational or technical leadership which has motivated or developed the application of engineering or engineering-related principles

Describe the impact of the work locally, nationally and internationally in areas such as the economy, industry, education or practice.

(Please include dates and limit to a maximum of 600 words)

8 Contributions of Record

Contributions related to publications: brief description of up to 10 of the most significant published contributions, including books, book chapters, conference proceedings, refereed journal articles, patents, other publications. (list complete title, all authors, source, and date for a maximum of ten (10) publications of most significant impact)

And/or

Contributions related to solutions: categorized as appropriate -- i.e., products designed, guides developed, engineering projects completed, standards developed, etc. (give brief description of up to ten (10) most significant contributions)

- 9 Principal Technical Society Membership (including grades) and Activities, and Other Noteworthy Pertinent Accomplishments in Engineering, Technical Editing, Engineering Standards Development and Public Service (boards, committees, consultantships, important offices held and contributions to society):
- 10 Professional Recognition (honors, awards, prizes, honorary degrees; give specifics):

AOC IMPACT Editors 2015-2016

Chief Editor



Dr. Jian Jin(金剑), Assistant Professor, Department of Agricultural and Biological Engineering, Purdue University. jinjian@purdue.edu

It's my honor to serve as the chief editor for this new year. We have a great team of editors and we'll be working hard to keep IMPACT a good source of information and also a way of connecting the AOC community together! Stay tuned for the next IMPACT issues!

Associate Editors



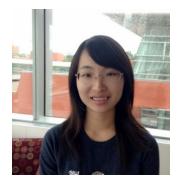
ShuangYe Lucia Qiao (乔双叶), M.Sc. Bioresource Engineering, Graduated from McGill University in 2014, qiaoyyca@yahoo.com

AOC is a wonderful organization full of great talents and creativity. I have learned much from professors and fellow student members in the past year. I'm very excited to start my second year as associate editor and to serve our AOC family!

Long Lin (林隆), Ph.D. Student, Environmental Science Graduate Program/Food, Agricultural and Biological Engineering, The Ohio State University. Lin.1132@osu.edu

It is really my honor to join AOC and get to know so many talented scholars. Hopefully I can be someone like them in the future. Working for AOC IMPACT offers me a very good opportunity to learn from these talented people.





Minliang Yang (杨旻靓), PhD student, Agricultural & Biosystems Engineering, Iowa State University. Email: minlyang0909@gmail.com

AOC IMPACT Newsletter is an excellent platform to share ideas and cooperate with experts from various places. It's such an honor to be an associate editor. Looking forward to working with you!



Jesse Kuzy, Graduate Student, M.S. Artificial Intelligence, University of Georgia

My current research focus is thermographic post-harvest quality inspection. I hope that my contribution to IMPACT will enhance the reputation and prestige of AOCBAFE.



Yin Bao (宝音), PhD student, Agricultural and Biosystems Engineering, Iowa State University, yinbao@iastate.edu

"It's definitely a great honor to serve the IMPACT newsletter. Moreover, I get to learn and broadcast important events and brilliant ideas in AOC."



Yanxi Lu, Master of Science. Research Assistant Dept. of Agricultural & Biological Engineering University of Illinois at Urbana-Champaign.

I got to know AOC in ASABE conference in New Orleans. I made friends and learnt a lot from there. I am very excited to be part of AOC and I look forward to serving IMPACT as one of editors and meeting all of you!



Zhenghong Bao (鲍正洪),PhD student, Biological Engineering, Mississippi State University, zb166@msstate.edu

It's my great glory to be one of the associate editors for IMPACT Newsletter. I will dedicate my effort to work with others in the editorial board to issue high quality journals.

AOC Meeting Minutes

Time: 4:10pm EDT, 10/30/2015

Attendees: Lie Tang, Zhiming Qi, Jian Jin, Liangcheng Yang, Weitao Zhang, Yanbo Huang, Yufeng Ge, Kai Liu, Changying Li, Zifei Liu.

- 1. Dr. Lie Tang, AOC President called the meeting to order at about 4:10pm EDT.
- 2. Dr. Zifei Liu sent out the last AOC Board meeting minutes (June, 2015) through email to all board members.
- 3. Board members reviewed the terms of the new board members and recognized the difference between terms of board members and terms of assigned officials.
- 4. Dr. Yufeng Ge introduced the progress of the institution membership. Nine institutions had made promises to join. Three are actually paid. One is ongoing. Dr. Changying Li encouraged Dr. Yufeng Ge to follow up with the payment progress. The AOC account balance before annual meeting is \$24634. The AOC account balance after annual meeting is \$18572. The cost of annual meeting and student awards have increased (\$16643 for 2015 annual meeting). The board members discussed the concerns on the large gaps between income and cost of the AOC banquet, and the increased cost on student awards. Dr. Yufeng Ge agreed to check with ASABE for the details on the payment going through ASABE.
- 5. Dr. Changying Li introduced the plan related to the Institutional Membership, including following up with payment of membership fee, completing the promised benefits and activities. He also promised to send board members a minutes of AOC advisory board initiative meeting.
- **6.** Dr. Liangcheng Yang introduced the AOC fellow nominations in 2015. He asked Dr. Zhiming Qi to help the nomination progress in 2016. Dr. Zhiming Qi agreed. Dr. Liangcheng Yang updated the professional/student development seminars. Dr. Lie Tang mentioned Dr. Yongbo Wan will help the seminar this year. Dr. Lie Tang suggested future webinars be recorded and shared online.
- 7. Dr. Zhiming Qi updated status of the latest issue of IMPACT newsletter. Dr. Jian Jin introduced the student editors and he plans to recruit more student editors.
- 8. Dr. Lie Tang suggested a discussion on AOC banquet on next board meeting.
- 9. Dr. Zifei Liu updated the AOC webpage status. Dr. Liangcheng Yang requested to change the contact information for the Institutional Membership application. Dr. Lie Tang suggested to add more updated pictures on homepage. Kai Liu suggested to add video through youtube to save storage space. Dr. Lie Tang suggested to highlight the information about the Institutional Membership. Dr Yanbo Huang made suggestions on website design and agreed to help.
- **10.** Dr. Lie Tang reviewed the China exchange activity in 2015. Dr Yanbo Huang suggested more time should be provided to presenters.
- 11. The meeting was adjourned at about 6:05 pm EDT.

Time: 8:00PM EDT, 11/11/2015

Attendees: Kai Liu, Lei Zhu, Weitao Zhang, Yang Liu, Chen Zhang, Yu Jiang, Rui Xu, Zhonghua Zheng, Yanxi Lu, Zhenghong Bao, Bao Yin, Long Lin.

- 1. Kai Liu, SAC chair called the meeting to order at 8:00PM EDT.
- 2. All SAC board members (including new members) approved the meeting agenda.
- 3. In the term 2015-2016, SAC has five new board members: Yang Liu, Chen Zhang, Zhonghua Zheng, Yanxi Lu and Zhenghong Bao. Thus there are a total 12 members in the SAC Board meeting. Each member gave a short self-introduction after the opening remarks.
- 4. Lei Zhu and Kai Liu reviewed the available positions of SAC board: Technology Director (AOC Website): Yang Liu; Technology Director (Facebook, Wechat): Chen Zhang; Academic Director: Yu Jiang; Career Director (webinars): Rui Xu; Activity Director: Zhonghua Zheng, Yanxi Lu; Foundation Director: Zhenghong Bao; Membership Development (Email list): Bao Yin; Member At Large: Long Lin. Foundation Director was set up as new position.
- 5. Public webpage (account) was setup on Wechat to maintain good communications among AOC student members.
- 6. AOC Impact Newsletter recruited new associate editors for the year 2015-2016. Bao Yin, Zhenghong Bao, and Yanxi Lu were willing to serve as Newsletter Associate Editor as well.
- 7. Kai shared information about AOC activity student members. SAC Board member had brain-storm session about potential activities for AOC student members in the coming year.
- 8. SAC Board also discussed the ASABE AIM 2016 @Orlando. Most of SAC members will attend the ASABE meeting.
- 9. The meeting ended at about 9:30 pm EDT.

SAC Meeting Minutes

The 110th Anniversary of China Agricultural University and

The 2nd International Conference on Smart Agriculture Innovative Development

By Tianjiao Zhang

As the oldest agricultural higher education institution in China, the history of China Agricultural University (CAU) can be dated back to October 1905, when the Qing Dynasty founded the College of Agriculture in the Jing Shi Da Xue Tang (the former Imperial University of Peking and the present-day Peking University). On October 16th, 2015, CAU celebrated its 110th anniversary. More than 300 delegates of 128 universities, colleges and institutes from 24 countries participated in the event, marking a milestone in CAU's history.



The China Development Forum 2015 and the 2nd International Conference on Smart Agriculture Innovative Development (ICsaid 2015) were also held on the same day at the College of Information and Electrical Engineering. ICsaid 2015 focused on innovative development, global strategy, collaborative innovation and key technologies of smart agriculture; production research and development and marketing about smart agriculture; and providing sci-tech support for smart agriculture to lead modern agricultural development and promote agricultural modernization. Prof. Wanlin Gao (Dean, CIEE, CAU) made the opening speech. The theme of the conference was intelligent agriculture technology and agricultural industrial transformation.

The conference invited world leading experts and well-known scholars to give keynote speeches and exchange ideas around the theme.

AOC members Dr. Nianqian Zhang and Dr. Ning Wang were invited to make the keynote presentations. Dr. Nianqian Zhang is a professor in the Department of Biosystems and Agricultural Engineering, Kansas State University, who is also a former president of AOC. He gave an excellent

keynote presentation on plant phenotyping, analyzing the advances in phenotyping and also sharing technologies of precision agriculture. He pointed out that plant phenotyping is a world-wide on-going effort and that quantitative analysis of plant phenotypes at the field level will become a major bottleneck in the future.

Dr. Ning Wang was also invited to give the keynote presentation. Dr. Ning Wang is an associate professor in the Department of Biosystems and Agricultural Engineering, Oklahoma State University. She is one of the co-founders of AOC and has provided outstanding services to AOC since 2001. She analyzed the crossover of agriculture and big data, and explained the "3 V's" characteristics (Volume, Variety and Velocity) of big data. She said "big data will create the next major technological leap in agriculture and there will be a need for researchers to bridge the technologies developed by other industry to agricultural applications."

AOC members Prof. Wang Yingkuan (Managing editor of International Journal of Agricultural & Biological Engineering, PhD Director of Agricultural Engineering Sci-Tech Information Center, Chinese Academy of Agricultural Engineering, Ministry of Agriculture) and Dr. Shufeng Han (assistant professor at University of Illinois at Urbana-Champaign) were also invited to join the conference.



The China Development Forum 2015 and the 2nd International Conference on Smart Agriculture Innovative Development.



AOC Members (From Left to Right, Dr. Ning Wang, Dr.Nianqian Zhang, Dr. Shufeng Han and Dr. Wang Yingkuan).





Keynote presentation made by Dr. Nianqian. Zhang

Keynote presentation made by Dr. Ning Wang.

News from Members

- Dr. Zhiming Qi

AOC会员、加拿大麦吉尔大学生物资源工程系助理教授齐志明与中国科学院院士、中国科学院遗传发育所农业水资源中心研究员、刘昌明院士共同申请的2015年度中国国家自然科学基金委员会(NSFC)与加拿大魁北克研究基金会自然科学与工程学部(FRQNT)合作研究项目于2015年12月获得审批通过。该项目题为"气候变化对中国华北平原和加拿大魁北克地区水资源和粮食安全的影响研究",旨在通过RZWQM2模型研究在未来气候条件下,不同的作物种植模式对华北平原地下水水位恢复和粮食产量的影响,以及气候变化条件下加拿大魁北克地区地下水位管理对水循环和作物产量的影响。该项目共受理有效项目申请15项。根据双方机构联合评审,经共同协商,共有4个项目获得资助,项目执行期为2016年1月1日至2017年12月31日。



AOC会员、加拿大麦吉尔大学生物资源工程系助理教授齐志明于2015年11月在明尼阿波利斯举行的美国农学会国际年会上获得北美华人土壤与植物科学家协会(Association of Chinese Soil and Plant Scientists in North America)颁发的"青年科学家"奖(Yong Scientist Award).

麦吉尔大学 McGill University欢迎相关专业(水资源与水环境、农业水利工程、土壤与水科学、农业气象等)CSC资助的学生,如对水文水质模型、农业系统模型(RZWQM、DSSAT,SWAT等)的运用、编程,以及水土环境监测(氮磷污染、胶体与纳米颗粒)等有兴趣的学生申请来我们研究团队读博士;若无CSC资助,成绩优异的学生有机会获得麦吉尔大学提供的奖学金(仅限秋季入学)或在研项目资助;欢迎并支持博士毕业生申请魁北克省政府资助的博士后项目(每年3月开始申请,11月最后截止)。麦吉尔大学为加拿大传统名校,生物资源工程系所在的农业与环境科学学院位于

加拿大第二大城市蒙特利尔市郊区Sainte Anne de Bellevue市,联系邮箱:zhiming.qi@mcgill.ca



News from Members

Professor Da-Wen Sun named as

2015 Thomson Reuters Highly Cited Researcher

Professor Da-Wen Sun, from the School of Biosystems and Food Engineering, National University of Ireland-Dublin (University College Dublin), has been selected for the prestigious Thomson Reuters 2015 list of Highly Cited Researchers. The list identifies the world's most influential contemporary researchers across 21 scientific fields. Over three thousand researchers earned the distinction by writing the greatest numbers of reports officially designated by Essential Science Indicators (ESI) as Highly Cited Papers—ranking among the top 1% most cited for their subject field and year of publication, earning them the mark of exceptional impact.

Source: http://www.ucd.ie/research/news/news/ newsarchive2015/news/mainbody,313166,en.html



华裔孙大文入选"汤森路透高被引科学家"名单

2015年12月28日 15:29 来源:中国侨网

中国侨网广州12月28日电据广东省侨办消息,近日,汤森路透(Thomson Reuters)公布了"汤森路透高被引科学家(Highly Cited Researchers)"名单最终版,华人科学家孙大文入选该名单农学领域"高被引科学家",为爱尔兰国立都柏林大学(UCD)获此殊荣的唯一学者。

汤森路透公布的全球"高被引科学家"名单是采用高质量的数据和先进算法,基于21个大学科领域2003年至2013年被SCI和SSCI收录的自然和社会科学领域的论文,对所属领域同一年度被引频次在前1%的高被引论文的作者进行深入分析和评估得出的。入选"高被引科学家"名单,意味着该学者在其所研究领域具有世界级影响力,其科研成果为该领域发展作出了较大贡献。

来源http://www.chinaqw.com/gqqj/2015/12-28/75198.shtml

Note: The interview with Dr. Da-Wen Sun will be published in the next issue. Please pay attention!

Agriculture differences between China and U.S.

By Zhenghong Bao

I came to Mississippi State University in August 2013 to pursue my Ph.D degree at the department of agricultural and biological engineering. I was born in a rural area in Sichuan province in southwestern China. According to my witness on the farming activities in the past 20 years in China and observation in US in the past two years, I would like to talk about some notable differences between Chinese and United States agriculture. There are many differences between Chinese and American agriculture including earth condition, population ratio, farmers' income, farming equipment, farming scale, and scientific management.

The total land resources of **China** are huge, but the average area occupied by each person is relatively

small. China has a territory of 9.6 million square kilometers, however, per capita arable land is only about 1.5 acres, per capita forest about 1.8 acres and per capita grassland 5 acres, which are 1/3, 1/5, and 1/2 of the world average, respectively. The United States abuts oceans on three sides and possesses five Great Lakes, providing abundant water resources. The US has vast areas of flat and fertile land. The prime natural location and climate in the US provides unique conditions for agricultural production and modernization. As of the 2007 USDA Census of Agriculture, there were 2.2 million farms, covering an area of 922 million acres, for an average of 418 acres per farm.



The **United States** has a population of about 300 million and the agricultural population accounts for 2%, of which about 3.5 million is labor force, with the remainder being children and elders. According to the sixth census in 2010, China's agricultural population accounts for 50.3% of the total population; about 670 million people. After deducting the peasant-workers, the real agricultural labor force in China is about 350 million, which is 100 times the US agricultural population. Based on the national statistical data, Chinese farmers' percapita annual income in 2014 was \$1400 ^[1]. The Bureau of Labor Statistics reported in May 2014 that the median annual pay for agricultural workers in the US was \$19,330 ^[2], which is considered as lower-class in the US, but it is still more than a dozen times than that of Chinese farmers. The owners of farms or ranches in the US are classified as middle class (May 2014, \$68,050 ^[3]), and some of them are quite wealthy. The common prac-



tice of employing undocumented immigrants for agricultural labor at low cost, and the labors' willingness to work for low wages due to fear of repatriation contribute to the existence of lower-class agricultural workers in the US.

Owing to the large size of each farm in the US, it is conducive to highlight leading products in certain regions from the macroscopic point of view. For example, Northeastern and New England areas mainly plant pasture, North Central corn, Great Plains wheat, and South cotton. Due to the scattered and limited per capita arable land for each family in China, human power is more convenient than

mechanized equipment. By contrast, American agriculture has a strong trend of replacing manual labor with advanced equipment. The large-scale use of agricultural machinery stretches into every aspect of farming activities, including the selection of seedlings, planting, fertilizing, weeding, irrigation, harvesting, threshing, drying, storage, processing, packaging, and transportation. Advanced agricultural mechanization greatly enhanced the productivity of agriculture in the US. China's modern agricultural machinery production began in 2001. In some areas, such as the Northeast Plain, large agricultural machinery is employed. However, at present in most areas of China, especially the western regions, manual labor is most common.

During the growth of American agriculture, the progress of science and technology has brought farmers the advanced knowledge to increase crop yields, guarantee quality, reduce costs and ensure food safety. They have accumulated much mature experience in agricultural production and management. Meanwhile, the majority of Chinese farmers lack even basic concepts of modern management in agricultural production. Chinese agriculture still has a long way to go.



IMPACT NEWSLETTER EDITORIAL BOARD

EDITOR

Dr. JIAN JIN —-Purdue University

ASSOCIATE EDITOR

Minliang Yang ——Iowa State University

Long Lin —-the Ohio State University

Shuangye Lucia Qiao —-McGill University

Jesse Kuzy —-University of Georgia

Yanxi Lu —-University of Illinois at Urbana—Champaign

Zhenghong Bao —-Mississippi State University

Yin Bao —-lowa State University

The 2015 - 2016 AOC IMPACT Editorial Board

Call for News & Activity Reports

The 2015-2016 IMPACT editorial Board invites you earnestly to submit of news and activity reports related to ASABE and AOC. Please send your write-up and/ or picture news to the Editorial Board at acc.impact@gmail.com. The IMPACT Board will work with you to put your news into the publication.

It is our publication and it is your publication. We sincerely thank each and every AOC members for their support!

