



IMPACT

A Quarterly Newsletter of AOC
Volume 1, Issue 4, June 2002

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Association of Overseas
Chinese
Agricultural, Biological, and
Food Engineers

海外华人农业，生物技术和食品工程师协会

From the President's Desk

While AOC is preparing for the celebration of its first anniversary, a brief summary of what we have done and what we have not done seems to be appropriate. We have devoted almost all our energies during the past three months to the Yangling meeting, the "Forum on Agricultural and Biosystem Engineering Development Strategy", and the Beijing meeting, the "2002 Sci-Tech Forum for Young Agricultural Engineers". The meetings were extremely successful by any standard. We sent seven delegates to Beijing and 12 delegates to Yangling. We made presentations that received overwhelming responses; we met with the entire core force of Chinese agricultural engineers; we had the first face-to-face contact with Chinese Society of Agricultural Engineering (CSAE) and the Editorial Board of *CSAE Transactions*; we initiated talks about a new, joint technical journal; we recruited new members from China; we made many new friends; and, we spread the words around the country - AOC exists and AOC is willing to collaborate.

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we recruited new members from China; we made many new friends; and, we spread the words around the country - AOC exists and AOC is willing to collaborate.

Yangling meeting was the first test on the validity, significance, and value of

AOC. Apparently, we have passed this test. After a year of efforts, AOC has solidified its standing among our peers. However, at the beginning of its second year, AOC faces many new challenges. Without a major event being planned for next year, can AOC be continuously successful? Professor Senwen Zhang used the word "sustainability" to describe the major challenge that AOC will be facing. I think he is quite right on this. Closely related to "sustainability" are issues on membership development, "real" cooperative projects with our Chinese colleagues, more effective communications within the Association and with other Societies, database development, publications, meetings, and professional development opportunities for professionals and pre-professionals. A small group of people is not sufficient to accomplish these tasks. We need many more volunteers to participate. We have been quite unsuccessful on involving our members in Europe and Asia during the past year. The potential in those regions should be further explored.

Let's discuss these issues in Chicago. We have had many meaningful activities lined up for you. We are also expecting a record-breaking number of participants from China. It's a good time to renew our friendship and it's a good time to talk.



Naiqian Zhang

An Enthusiastic and Fruitful Conference – Yangling Meeting Report

By Jiannong Xin

The Forum on Agricultural and Biosystem Engineering Development Strategy was held at Northwest Sci-Tech University of Agriculture and Forestry (NSTUAF), Yangling, Shaanxi, from June 25 to 29. The Forum was the first such event in the history of agricultural-engineering profession in China. It was co-organized by Chinese Society of Agricultural Engineering, 全国高等院校农业工程校

长联谊会, and AOC. The forum attracted around two hundred people, including leaders from the Ministries of Chinese Government, leaders of agricultural universities in China, and an AOC delegation of 12 members. The Forum was recognized by all participants as a



Jiannong Xin

very successful and productive event. Presentations made by the AOC delegates introduced the newest development in agricultural engineering research and education in North America. Their presentations attracted tremendous interests from the participants.

After two days of busy meetings, the participants visited several showcases of the Yangling Hi-Tech Demonstration Zone, including a greenhouse, a water-saving irrigation system, a soil erosion lab and an artificial rainfall facility. The tour ended at a highly-attractive Entomology Museum within the university.

In the evening of June 26, AOC held a special meeting. Among the topics discussed were joint research projects, joint publications, AOC database, information sharing and consulting, and strategies for the sustainability of AOC. AOC and CASE also started a discussion on a joint English journal, which may serve as a window to the world for the research work conducted by agricultural engineers in China and abroad. Twenty-one colleagues in China formally joined AOC during and after this meeting (see related report).

Mr. Guangqiang Zhang, the Director of Yangling Agricultural High-Tech Demonstration Zone, invited AOC members for a dinner to discuss potential collaborations. He encouraged AOC members to establish businesses and to find collaboration partners in Yangling.

Proposed by Dr. Xiusheng Yang and led by Dr. K.C. Ting, an ad-hog committee formed by AOC delegates and leaders of Chinese institutions brainstormed on development strategies of agricultural engineering in China. The Committee developed a draft letter to the central government of China.

The Forum Organizing Committee Chair, Professor Wang Maohua, and other committee members worked tirelessly for the success of the meeting. During the closing ceremony, AOC president Naiqian Zhang presented our gifts - 10 AOC T-shirts - to the hosting university to express our gratitude for their great efforts and hospitality.

After an enthusiastic bidding contest, Northeast Agricultural University in Harbin was granted the right to host the next Forum on Agricultural & Biosystem Engineering Development Strategy in 2004. AOC was officially appointed as a co-sponsor.

AOC members attending the Forum were Yanbin Li (*University of Arkansas*), Rongsheng Ruan (*University of Minnesota*), Xiuzhi Sun (*Kansas State University*), Juming Tang (*Washington State University*), Yang Tao (*University of Maryland*), Lei Tian (*University of Illinois*), K. C. Ting (*Ohio State University*), Donghai Wang (*Kansas State University*), Jiannong Xin (*University of Florida*), Xiusheng Yang (*University of Connecticut*), Naiqian Zhang (*Kansas State University*), and Ruihong Zhang (*University of California at Davis*). Ning Wang (*Kansas State University*) and Yubin Lan (*Fort Valley State University*) submitted their presentation materials but did not attend the Forum due to technical difficulties.



The Organizing Committee Chair, Professor Wang Maohua, addresses the audience.



A glance of the conference site.



AOC President Naiqian Zhang presents AOC T-shirts to Professors Qing Yang and Kangquan Guo, representatives of the hosting University.



The AOC delegates in Yangling.



Dr. Xiuzhi Sun's presentation was of great interest to many forum participants.



Professor Dechao Zeng gives remarks at the closing ceremony.



Jiannong Xin, the AOC Secretary in US (left), meets Baoji Wang, the AOC Secretary in China.

Opportunity, Challenge, and Innovation - a Report from AOC Delegates in Beijing

By Naiqian Zhang

“Opportunity, Challenge, and Innovation” was the theme of the 2002 Sci-Tech Forum for Young Agricultural Engineers in Beijing. Three AOC delegates, Xiusheng Yang, Zhongli Pan, and Naiqian Zhang, had the fortune to attend the Forum and to address the young audience. They introduced the US education system on agricultural engineering, the achievement of overseas Chinese agricultural engineers and its worldwide impact, and the duties of young agricultural engineers. They also learned from the young engineers the current status and the future of agricultural engineering in China. The message is overwhelmingly encouraging – agricultural engineering is alive and well in China. There are plenty of qualified successors ready to take the charges and

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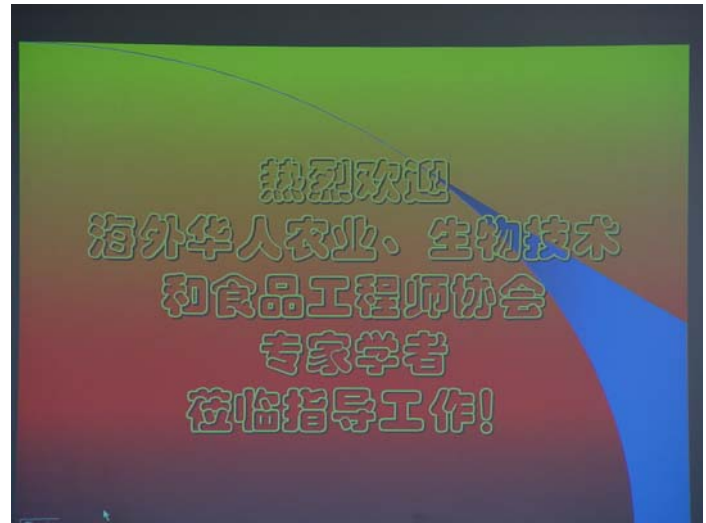
move on.

The delegates met the new leaders of China Agricultural University and were impressed by their vision and resolution. A large building was about to be completed for food science. It is probably one of the largest facilities in the world dedicated to research in this discipline. An AOC delegate was invited to chair a Ph.D. defense. A pleasant evening with graduate students gave the talkative delegates opportunities of chatting with many young friends, in the Chinese language of course, on personal philosophy, past experiences, and even love lives.

Six AOC delegates, K.C. Ting, Xiusheng Yang, Yanbin Li, Juming Tang, Lei Tian, and Naiqian Zhang, visited the

new building of Chinese Academy of Agricultural Engineering, the Headquarters of Chinese Society of Agricultural Engineering (CSAE) and the home of *CSAE Transactions*. Four AOC members have been appointed as Overseas Members of the Editorial Board by CSAE. This was the first opportunity for them to request an office, or a desk, in this building. The Executive Vice President of CSAE and the Director of the Academy, Dr. Ming Zhu, demonstrated his Hubei-style hospitality to the AOC delegates – an abundant Chinese lunch with wines almost prevented the delegates from catching a flight to Yangling on time.

The opportunities are real; the challenges are confronted by the young generation with innovations. AOC has met CSAE face to face; the friendship has grown; The future? It is up to us. AOC is willing to join the long march.



A welcome sign at the CSAE Headquarters.



Dr. Xiusheng Yang addresses the young audience at the 2002 Sci-Tech Forum for Young Agricultural Engineers in Beijing.



AOC delegates visit Chinese Academy of Agricultural Engineering.

AOC-Chicago Meeting Activities at a Glance

By Hongwei Xin

Monday, July 29, 2002, 17:30 – 22:00

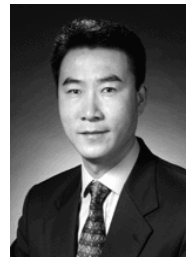
ASAE Student gathering dinner party. Shanghai 456 Restaurant, China Town (See a separate flyer for details).

Tuesday, July 30, 2002, 19:00 – 22:00

19:00 – 20:00 Business Meeting, Location: Regency C
 20:15 – 21:30 Dinner, Location: Szechwan Restaurant, 625 N. Michigan Ave
 21:30 – 22:00 Seminar “Positive Mental Attitude” by Dr. Ping Yang, Location: Szechwan Restaurant
 22:30 – 23:30 Joint Board Meeting, Location: Dr. Zhang’s “Presidential Suite”

Agenda of Business Meeting:

1. Introduction of honorable guests
2. Introduction of AOC officers
3. AOC Graduate Leadership and Service Awards
4. President's report
5. Treasurer's report
6. Rectification of AOC Constitution
7. Election of 2002-2003 AOC Executive Board
8. Signing of ASAE-AOC Agreement
9. Speech of Dr. Wayne Skaggs, ASAE President
10. Speech of new AOC Executive Board representative
11. Adjournment



Hongwei Xin

Dinner (Buffet style):

Menu: Hot & sour soup, Shanghai spring roll, Fried wonton, Fried scallop, Fried chicken wing, Cold garlic broccoli, Marinated beef, Chicken with soy sauce, General Tsao’s chicken, Seafood combinations, Sweet and sour pork, Asparagus beef, Home-style bean curd (tofu), Assorted vegetables mix, Shanghai fried rice, House special fried noodle with pork, Steamed rice, and Fresh fruits of the season.

Drink: Ice water and hot tea.

Cost (gratitude and sales tax included): \$15 per adult, \$7.5 per child under 10 yr., and free under 3 yr. Soft/alcohol drinks are extra.

Wednesday, July 31, 2002, 14:30 – 17:00

Technical Session: China Exchange (Co-sponsoring with INTL-612 & CIGR)

Moderator: Hongwei Xin

Location: Water Tower

Time	Paper #	Speaker and Presentation Title
14:30		Introduction The Honorable Bo JIANG, Consulate General of PRC in Chicago: Opening welcome remark
14:40	02-8040	Rameshwar S. KANWAR, Iowa State University: “Approaches and opportunities of educational exchange programs with China”
14:55	02-8041	Maohua WANG, China Agricultural University: “Strategic development of agricultural engineering discipline and education in China”
15:10	02-8042	Norman R. SCOTT, Cornell

University: “Consortium of U.S. universities and institutes in cooperation with China for agriculture”

15:25 02-8043 Xiaojun DU and Xianying XU, Northeastern University, China: “Competitiveness of Chinese agricultural products under the frame of WTO”

15:40 02-8044 Yaov SARIG, Israeli Ministry of Agriculture: “Technology transfer and scientific cooperation with China – the Israeli model”

15:55 Break

16:00 02-8045 Xiusheng YANG, University of Connecticut: “West development in China: Opportunities and challenges for agricultural, biological, and food engineers worldwide”

16:15 02-8046 Huazhong LU and Muchun WU, South China Agricultural University: “Reforming the extension mechanism to promote applications of the achievements in agricultural scientific research”

16:30 02-8047 Sietan CHIENG, University of British Columbia: “Irrigation and drainage: food production and environment – China view”

16:45 02-8048 Yinggang OU, Yali ZHANG, Dantong YANG, and Baixiang LI, South China Agricultural University: “Experience and analysis on sugarcane mechanization at a state farm in China”

A Message from Membership Development Committee

By Ruihong Zhang

Dear AOC Members and friends,

AOC is fast growing, now already with 65 members! On behalf of the Membership Development Committee, I want to thank you for your continual support. If you have not yet become a formal member, please send in your application ASAP. AOC has initiated and organized many activities

since its establishment last July. One of the important activities that AOC is undertaking now is to develop a database for all the members. This database will help foster better communication among our members and also connect our members to other professional communities. The database will be made accessible via the AOC website as well as through other channels and will have user friendly

features, such as searching capability to allow the user to locate our members by expertise, research and teaching interests, etc. If you are a member, you should have seen an email from me early June to request the following information:

Your name, job title, mailing address, phone and fax numbers, email address, web address, and a picture of yours
Educational background
Research interests or technical expertise
Teaching interests
Representative recent publications (3-5)

This information will be used to create a personal portfolio page for you in the AOC database. If you have not yet sent the information to me, please do so soon. We want to include you. Again, thank you for your support. I look forward to seeing you in Chicago at the ASAE meeting.

Best regards,

Ruihong Zhang
Chair of AOC Membership Committee



Ruihong Zhang

Welcome New AOC Members

陳建，西南農業大學工程技術學院院長，教授
楊青，西北農林科技大學機電學院前院長，教授
楊中平，西北農林科技大學機電學院副院長，教授
閔曉莉，西北農林科技大學機電學院，教授
麻碩士，內蒙古農業大學前校長，教授
田德，內蒙古農業大學研究生處處長，教授
王軍，胖龍（邯鄲）溫室工程有限公司，副總經理
余新萍，天津農學院，副教授
馬淑英，河北職業技術師範學院機械電子系，教授
申德超，東北農業大學工程學院，教授
佟金，吉林大學生物及農業工程學院院長，教授
劉木華，江西農業大學，副教授
區穎剛，華南農業大學工程學院院長，教授
尚書旗，萊陽農學院，教授
王繼先，安徽農業大學，教授

吳建民，甘肅農業大學，教授
楊方，東北農業大學工程學院，教授
王熙，黑龍江八一農墾大學工程學院，教授
孫遠明，華南農業大學食品學院，教授
張文煥，山西農業大學工程技術學院副院長，教授
王鐵良，沈陽農業大學水利學院院長，副教授
Xiaobei Zhan, Biological and Agricultural Engineering Department, Kansas State University, Graduate Research Assistant
Ying Wang, Biological and Agricultural Engineering Department, Kansas State University, Graduate Research Assistant
Ye Sun, Biological Engineering Department, North Carolina State University, Graduate Research Assistant

海外華人學者在世界農業工程界的影響 – 介紹海外華人農工協會

張乃遷

This article is adapted from a speech Dr. Naiqian Zhang delivered at the 2002 Sci-tech Forum for Young Agricultural Engineers in Beijing. The article provides a comprehensive overview of the Association of Overseas Chinese Agricultural, Biological, and Food Engineers (AOC). More importantly, it summarizes the accomplishments of overseas Chinese scholars and their influences on the agricultural engineering profession in the world.

一九四八年春天，十九位留學美國的華人農工學者聚集在加利福尼亞州的斯塔克頓，協商成立一個海外華人農工學會。這一夥人後來就成為中國農業機械化事業的棟樑。半個世紀以后的二零零一年七月三十一日，近百名留學北美的華人農工學者聚集在距斯塔克頓僅五十英里之遙的薩克拉門托，成立了一個新的海外華人農業、生物及食品工程師協會 – Association of Overseas Chinese Agricultural, Biological, and Food Engineers

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(AOCABFE)，或者簡稱海外華人農工協會 – AOC”。中國農業工程界的創業元勳，中國工程院資深院士曾德超教授在寫給AOC的賀信中說：“我們相信聯誼會(AOC)能夠很好地利用當今全球經濟一體化的大趨勢，利用中國和第三世界此一巨大內需市場與人力資源，促進海內外從事農業、生物及食品工程的工程師間的密切關係，協同創業與廣泛交往，在新世紀裡共同迎接挑戰與機遇。”曾教授的話真是一箭中的的，因為他在這裡所說的，正是我們創建AOC的初衷。

AOC的大部份會員，是八十年代初期大陸實行改革開放政策以來，從中國大陸到美國和加拿大來學習農業工程的。比如我自己，就是在一九八一年五月來到美國印第安納州的普度大學讀書。四五萬人的一所大學，當時只有二十幾位中國學生和訪問學者。風土人情一無所知，英語又都乏善可陳，其艱難困苦可想而知。其後大陸來北美學習農工的漸次增多，分佈在美加二三十所大學。因為大都勤奮有加，往往有機會到美國農工學會上宣讀論文，故而經常見面。同根同感同境同情，自然倍覺親切。建立協會的念頭也就隨之而生了。

第一個AOC始建于一九八六年。當時在康奈爾大學就讀的一批大陸學生串連美，加各校，並與大陸農工學會聯絡，創辦了“Chinese Society of Agricultural Engineers in America”。馮永賢和陳樹林擔任了前兩屆的主席。九十年代初，大陸學者開始進入美，加大學農工系任教。到二零零零年總數已達三十餘人。其中僅伊利諾大學一系就有四名大陸中國教授。張強和譚景璐還分別擔任了加拿大曼尼托巴大學和美國密蘇里大學農工系的系主任。還有許多大陸學者進入北美重要研究機構和工業界任職。這些人在北美乃至世界農業工程界影響日增，已漸漸匯成了一股不可忽視的力量，令世人刮目。

所以這個新海外華人農工協會的建立，實在是瓜熟蒂落，水到渠成。在二零零零年美國農工學會的米沃基年會上，七十多位華裔農業工程師齊聚一堂，推舉了籌備委員，限期一年，籌劃新會。值得一提的是，這七十多位與會代表中還包括了來自大陸、台灣、香港和歐洲、亞洲的華裔學者。實際上，早在大陸學生大批留美之前，很多華裔農工學者就從台灣來到美國。他們中間有很多優秀人材，或教書，或做研究，成就斐然。象加拿大的英屬哥倫比亞大學、麥基爾大學和美國的夏威夷大學農工系，都曾因擁有眾多華裔教授而獲“唐人街”之美譽。王兆凱教授和丁冠中教授還先後被推選為美國農工學會會士。現任加拿大農工學會主席的 Victor Lo 也是華裔。這些華裔教授熱愛中國，關心中國，和我們這些大陸學者同聲相應，同氣相求。

AOC的建立不僅是中國農工界的一件大事，它也引起了世界農工界的極大關注。應邀參加AOC成立大會的，就有美國農工學會，世界農工學會，加拿大農工學會，亞洲農工學會和日本農工學會的領袖人物。AOC成立不到一年，就與美國農工學會正式簽署了實際合作協議，並開始與世界農工學會和亞洲農工學會合作主辦學術會議。AOC從開始籌措，就得到中國農工學會和中國農機學會的鼎力支持。中國工程院曾經留蘇的汪懋華院士為指導和協助AOC的建立殫精竭慮。他還不遠萬里，親自出席了AOC成立大會，並擔任了第一屆AOC執委會委員。暨南大學的張森文教授是AOC的主要倡導者和組織者。AOC的最終成立是與他的不倦努力分不開的。

正如張森文教授和以色列友人薩力格博士在AOC成立慶典致詞中所言，中國歷屆出洋的學子素有不作家國的傳統。不管去國離鄉多麼久遠，他們于家于國終懷報效之心。中國傳統的尊師敬長美德，也在我們身上刻下了深深的烙印。而在這一點上，東西方文化是大相徑庭的。所以我們AOC自從成立以來，積極開展與大陸同行的交往。這一次我們能在短期內派出一個十五人的代表團，協辦並參與楊凌會議和北京青年論壇，就是我們不忘傳統的明證。

那麼我們AOC能為祖國做些什麼呢？我相信我們能做很多，因為我們對中西農業工程，中西社會經濟，乃至中西文化政治均有深刻了解，因為我們親眼看到了也認真學習了西方先進的農業及農業工程技術，所以我們聞道無論先後，術業均有專攻。我們集嚴格的基礎教育和廣泛的研究訓練於一身，因而具有獨特的優勢。再加上我們的勤奮和我們的才智，我們應當能為中國乃至世界的農業工程發展做出很多的貢獻。這一點已為大量事實所證明。

根據我們去年所做的統計，僅佔美國農工學會會員人數百分之二的華裔學者，于過去六年之中在美國農業工程學報上發表的論文，每年都在百分之二十以上。其中華裔學者為第一作者的，每年都佔百分之十五以上。而且這些數字仍在逐年攀升。美國農業工程學報是農業工程界在世界上最有影響的學術刊物。按照世界人口分佈，華人理應在這個刊物上發表四分之一的文章，這一點終於快要被我們海外華裔農業工程師們做到了，我們對此至感驕傲。

我們不僅在論文數量上與西人匹敵，在質量上更是略勝一籌。自一九九七年以來，美國農業工程學報的優秀論文獎，每年都有四分之一以上頒給了華裔作者。這一比例在二零零零年竟然高達百分之六十三。

我們海外華人農業工程師的學術地位近些年來也在不斷提高

。我們不再只是學報的投稿人。我們之中的很多人已經成為學報的編委和諸多學科委員會的主席。按照去年的統計數字，十一位華裔學者成為了美國農業工程學報各分刊的正副編委，三十多位擔任了學科委員會主席，涵蓋農業工程的各個領域。當我們在AOC成立大會上公佈這些非官方的統計數字時，到會的世界各兄弟學會領導人並未感到驚訝，因為海外華人的刻苦勤奮以及他們在世界農工界的卓越貢獻，早已成為不爭的事實。這很象國際奧林匹克，不論過去中國的體育多麼落後，現在則再也沒有人對華人的金牌感到意外了。

AOC能夠對中國農業工程的發展做出的貢獻應該是多方面的，包括傳統領域和許多新興領域，這一點可以從我們學會的正式名稱上得到印證。去年當我們在網上討論商定會名時，很多從事食品和生物工程的華裔學者強烈要求加上“生物”和“食品”兩詞，因為它們代表了現代農業工程的一個發展進化大勢。正如在北美，十之八九的農工系已經在系名前加上了“生物”二字一樣，世界各國，包括中國的農工學科接納此一變化已是勢在必行。我們AOC的會員幾乎在農工學科內的所有領域都有杰出代表，因此我們能為中國農業工程的發展所做的貢獻也必然是全方位的。

在農業機械化已經高度發達的西方國家，農業工程師在農業動力和機械方面的研究已經轉向電子信息化和機電一體化。伊利諾大學的田磊和張勤在這個領域裡成就卓著。今年美國農工學會會刊第四期上介紹了田磊設計的一個極為成功的智能化除草劑施放系統。張勤曾在美國農機工業界任職，他設計的一個借衛星定位的無人駕駛拖拉機達到了世界領先水準。近些年來，著眼于低成本，低環境污染，因地制宜，因時制宜的精細農業得到了世界範圍的關注。美國農業部亞熱帶農業研究中心的楊成海，約翰迪爾公司的韓樹豐，密西西比州立大學的隋瑞修和加拿大曼尼托巴大學的陳瑛在將遙感、傳感器、自動控制系統、全球定位系統和地理信息系統應用在精細農業方面的研究享有極高的聲譽。我在堪薩斯州立大學也致力於精細農業中的傳感器研究。我的學生，即將到加拿大麥基爾大學執教的汪寧，則傾心研究嵌入式微機系統和控制局域網絡。她所設計的一個實時除草控制系統，是電子信息化以及機電一體化的一個很好的範例。

信息技術是現代文明史給予發展中國家的一個珍貴禮物。西方國家在實現農業現代化進程中，信息化滯後機械化大約五十年，而在中國，農業機械化和農業信息化卻幾乎是攜手比肩而行。信息化輔佐下的機械化勢必是一個高效率的進程。因此對於中國來說，這確乎是一個歷史的機遇。我們AOC中有許多農業信息化的專家，相信他們會給國內的同行提供許多有益的幫助。佛羅里達大學的辛建農是一位農業計算機專家，也是數屆世界農業計算機會議的組織者。他在農業病蟲害診斷，農業決策和氣象網絡方面均有卓越貢獻。馬里蘭大學的陶陽在機器視覺方面獨樹一幟。他為工業界設計的水果分選系統效率高，精度好。他因此而得到美國農業工程學會的大獎，並獲九項專利。美國農業部研究中心儀表及傳感器實驗室由華裔科學家陳育仁領導。他們在多光譜和近紅外食品檢驗方面居世界領先地位。密蘇里大學的譚景璐在過程控制，機器視覺和生物光子圖像方面頗有造詣。他致力於將信息技術用于生物技術和醫療診斷。俄亥俄州立大學的丁冠中和林平都是來自台灣，他們把信息技術和機械手用于設施農業及生物產品的生產與處理，並且將這些技術推廣到太空生存環境的研究。

自然資源，特別是水土資源和能源的開發、管理和保護，已經成為現代農業可持續發展的前提。在西方國家，各級政府對自然資源不遺余力地加以保護；而在中國，保護的力度尚且不足，著眼的角度亦稍嫌短視。在這方面，AOC的很多有識之士可以提供幫助。康涅提克大學的楊秀生是在大陸很知名的自然資源管理專家。他還領導著康州的氣象研究中心。近年來他往來奔走于大陸和美國之間，為開發祖國大西北提供了不少的寶貴意見。華盛頓州立大學的陳樹林和吳瓊悉心研究水質、水域、水文、地下水和土壤侵蝕模型。他們還涉足廢水處理和水生養殖，成就卓著。加利福尼亞大學戴維斯分校的傑出學者張瑞紅領導著一個具工業規模的將廢棄物轉換成再

生沼氣能源的重要科研項目。北卡羅來那州立大學的成家楊則遙相呼應，在美國的東海岸開展著類似的研究。任何關注中國能源問題的人都懂得這項研究對中國的重大意義，因為能源，特別是農村能源，在中國是一個比在美國更為迫切也更為困難的問題。

農業設施的環境同樣是一個于國計民生都有影響的問題。隨著動物蛋白消費的急劇上昇，動物養殖業的規模日益增大，其對環境的影響也日益加深。在這一方面，AOC同樣擁有許多專家。他們的專長可資國內同行借鑒。依阿華州立大學的辛宏偉去年曾經獲得美國農工學會頒發的青年研究員獎，表彰他在雞場和豬場設施的環境控制及其對動物生長影響的研究方面所做出的傑出貢獻。伊利諾大學的張元輝和他的學生，現在俄亥俄州立大學供職的趙靈英，應用數學模型和測量技術，深入研究動物環境參數並探討改良措施。加拿大曼尼托巴大學的張強，深入研究動物養殖和穀物儲存設施的空氣污染，包括氣味和粉塵，通過建立模型和實地測量尋求改良方案。明尼蘇達大學朱軍的研究領域與此相似，他在研究動物養殖場的氣味同時，尋求經濟而有效地處理動物排泄物的最佳方案。

生物技術和食品工程是農業工程的新興領域。近年來美國政府充份認識到原始農產品增值在這個競爭日益加劇的全球化市場上的重要性而大力鼓勵這一方面的研究。我想隨著中國進入世界貿易組織，這一方面的研究在中國的重要性也是日漸突出了。去年“九一一”事件之後，食品安全在西方國家變成了一個頭等重要的課題，很多相關研究應運而生。我們AOC在這些領域也不乏人材。佐治亞大學的洪延康是來自台灣的學者，他在冷凍食品質量方面頗有建樹。明尼蘇達大學的阮榕生統領著大批研究人員，不但研究各種各樣的食品加工技術，比如冷電弧與臭氧，他們還研究各種測試手段，比如圖像處理，核磁共振和光譜分析。華盛頓

州立大學的唐炬明近一兩年來連續取得兩項百萬美元級的研究經費，正在領導著六、七所大學的研究人員，從事基于微波、高頻、電磁能的農產品與食品熱加工新技術以及非化學品水果、花生的電磁能殺虫等新技術方面的研究。堪薩斯州立大學年輕有為的學者孫秀芝正在領導著一個數百萬美元經費的項目，從事生物材料加工、生物降解塑料，生物材料黏結劑以及穀物化學與流變學等方面的研究。堪薩斯州立大學的王東海則在谷物、油料籽粒品質測量與近紅外穀物質量檢測技術以及基于發酵机理的農副產品生物材料利用新技術方面造詣頗深。佛蒙特大學的陳宏達從事生物材料方面的基礎研究。阿肯色大學的楊偉華主要研究穀物和油料的收穫後處理。加利福尼亞大學戴維斯分校的潘忠禮在穀物、豆類和蔬菜等農產品增值方面的研究成績卓越。阿肯色大學的李延斌長期從事食品微生物檢測和生物傳感器方面的研究，並主持一個生物儀器實驗室。去年“九一一”事件後，得以在食品安全檢驗方面大展其才。佐治亞州立大學福谷分校的蘭玉彬與李延斌的研究方向相似。他的研究工作曾屢次獲獎。還有密西根州立大學的盧仁富，專功用于食品的傳感器，包括圖像處理和近紅外技術。在新興的生物技術領域，佛吉尼亞理工學院的張臣明和愛達荷大學的和秉鈞正在從事生物製品分離和淨化的研究，成果累累。

綜上所述，我們海外華人農工協會人才濟濟，我們又都懷著一顆拳拳之心。這次我們的代表團來到北京，來到楊凌，就是希望能夠與祖國的同行建立更廣泛更深入的聯係。我們的合作不僅對中國有利，對美國和加拿大有利，而且對全世界的農業工程事業有利。現代科技已經把這個地球變得很小，中國的命運與世界息息相關。中國富國興邦，世界咸受其益矣。

Executive Board Meetings Convened from April to July

By Jiannong Xin

A brief summary of the executive board meetings convened from April to July:

1. AOC Board has finalized the plans for AOC activities at the ASAE/CIGR Annual Meeting in Chicago. The Board will hold a business meeting, followed by a banquet, at 7 pm of Tuesday, July 30.
2. A delegation of 12 AOC members attended the 2002 Forum on Agricultural & Biosystem Engineering Development Strategy, which was held at Northwest Sci-Tech University of Agriculture and Forestry in Yangling, Shaanxi, China, from June 25 to 29. The Forum was co-organized by Chinese Society of Agricultural Engineering (CSAE), 全國高等院校農業工程校長聯誼會, and AOC.
3. AOC sent a delegation to the 2002 Sci-Tech Forum for Young Agricultural Engineers in Beijing. The Forum was organized by CSAE.
4. AOC and CSAE are in the process to co-publish a refereed journal. The journal will be registered in USA and published in China.
5. AOC has been granted tax-exempt status for non-profit organization by IRS.
6. AOC has established two mirror Web sites in China (<http://aoc.cau.edu.cn> in Beijing and <http://www.aocscau.com> in Guangzhou).
7. AOC Membership Development Committee is currently developing a membership database including information on technical expertise.
8. AOC Student Activity Committee is planning a student dinner gathering and AOC T-shirt sales in Chicago.
9. AOC Professional Development and Award Committee will present two Student Leadership and Service Awards at the business meeting.
10. The Asian Association for Agricultural Engineering (AAAE) invited AOC members to attend an AAAE-sponsored International Conference in Wuxi, China, this winter. AOC President Naiqian Zhang was invited to give a keynote speech at the Conference. A time slot will also be allocated for AOC activities during the conference.

A new AOC Website in Guangzhou and Domain Change in Beijing

A new AOC website has been set up at South China Agricultural University at <http://www.aocscau.com/>. This website was designed by Professor Liancheng Chen. Using an AOC database, she added four functions to make this Website more powerful than the other sites:

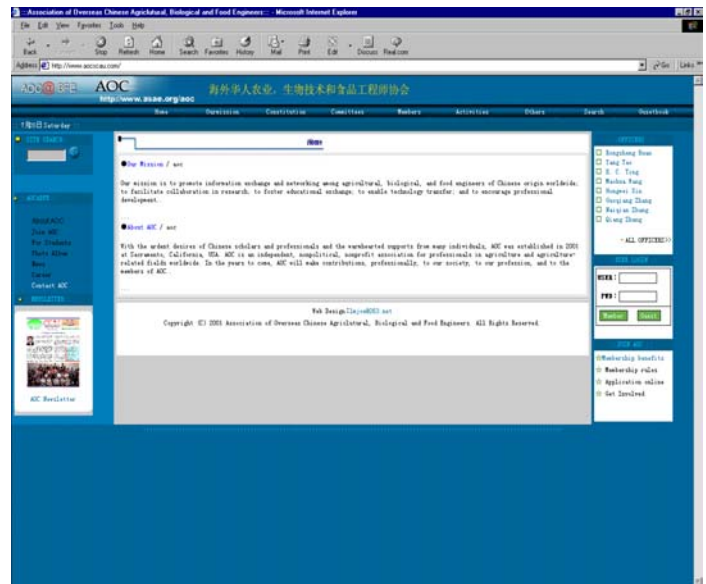
- Automatic background renewal function
- Membership registration system
- Member log-in system
- Search engine

We congratulate Professor Chen for her innovative design and we highly appreciate her contribution to AOC.

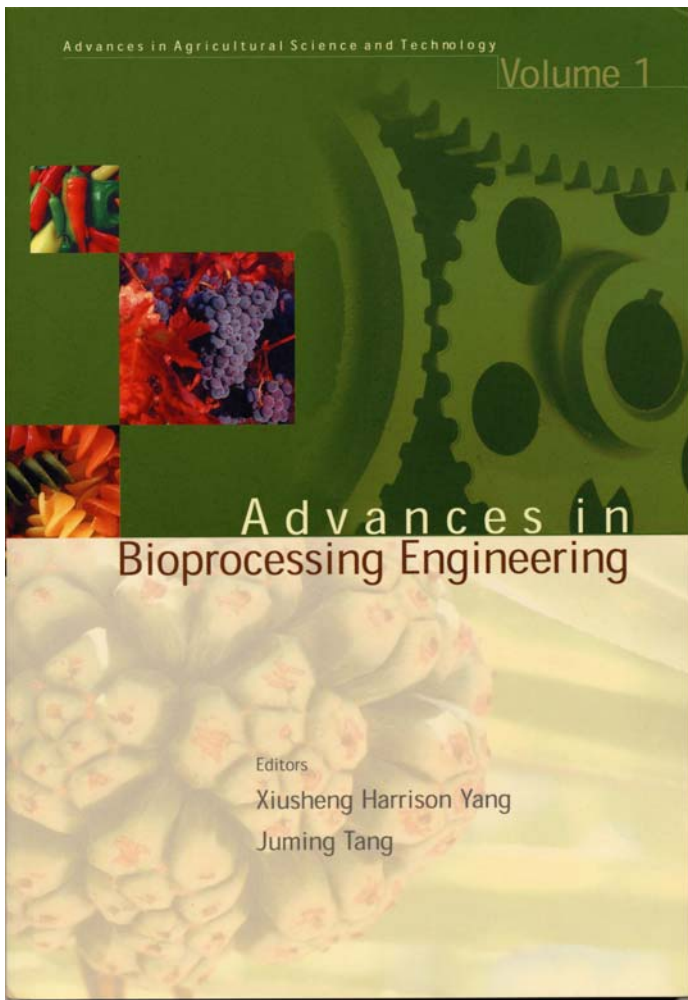
On a related note, the domain for the AOC mirror Web site in Beijing has been changed to <http://aoc.cau.edu.cn>, while the AOC main Web site in the US remains at <http://www.asae.org/aoc>.



Liancheng Chen



A Book Edited by Xiusheng Yang and Juming Tang



An E-Mail Message From Dr. Bill Stout

Original Message From Bill Stout stout@tamu.edu, April 16, 2002.

Congratulations for producing a newsy and attractive newsletter. I am impressed with the many activities of AOC. Also, congratulations for the AOC-ASAE cooperative agreement. It is good to see AOC working closely with ASAE.

I am sure you know about plans for a major conference to be held in Beijing in October 2004 under the auspices of CIGR. You can obtain up-to-date information from Wang Maohua at mhw@public.bta.net.cn or from the Chief Secretary Renjie Dong at cigr_2004@yahoo.com. Dr. Wang

will be at the CIGR/ASAE World Congress in Chicago at the end of July so you can talk with him there. Dr. Axel Munack will be President of CIGR in 2004 and he will also be in Chicago.

Perhaps AOC can provide significant input to the technical content and play a role in publicizing this major conference.

Best regards.

Bill Stout,
Past President, CIGR



Bill Stout

Editor's Note



Chenghai Yang

The fourth issue of IMPACT has finally been released after a three-week delay. The postponement was mainly because we wanted to include the reports on the Yangling meeting and the Young Agricultural Engineer Forum in Beijing, both of which were held in late June. Another reason was that we wanted to provide you with the most updated information on AOC activities during the ASAE/CIGR Annual Meeting in Chicago. I am sure that our members will be appreciative of this information even though it comes a little late.

This is the last issue of volume 1 for IMPACT and it is also the last issue the current editorial board is responsible for. As the editor of the AOC newsletter, I appreciate AOC and all of you for giving me the opportunity to report to you on the progress and accomplishments of AOC during this historical period of its development. It has been a meaningful and delightful experience for me. I would like to thank Ms. Lin Wang, the associate editor, for her excellent editing skill and diligent work, Dr. Naiqian Zhang, AOC president and editorial board member, for his creative guidance for the development of the newsletter, and Dr. Jiannong Xin, Chair of AOC Communication and

Networking Committee and editorial board member, for his dedicated support. I also want to thank those of you who have contributed articles, stories, and materials for inclusion in the four issues of the newsletter. Finally, I appreciate the encouraging comments and suggestions from our readers.

IMPACT serves as a window for AOC to communicate news and information important to its members. Its continuation is important. Although the term of this editorial board expires after this issue is released, we will work with the next editorial board to make the transition as smooth as possible. As always, we encourage article ideas and story submissions from all the members. Before the new editorial board is formed, you can continue to send your comments, suggestions, and any materials for inclusion in the next issue to me at cyang@weslaco.ars.usda.gov or to Ms. Lin Wang at lwang@ksu.edu. If you need to contact us by regular mail, phone or fax, my contact information is Chenghai Yang, USDA-ARS, 2413 E. Highway 83, Weslaco, TX 78596, Tel: 956-969-4837, Fax: 956-969-4893.



Lin Wang

Student Gathering Dinner Party

Student Activity Committee
Association of Overseas Chinese Agricultural, Biological,
and Food Engineers (AOC)

5:30pm, July 29, 2002
Shang Hai 4 5 6 Restaurant



上海四五六饭店

(Tel: 312-225-4081, 216 W. Cermak Road, China Town, Chicago, IL 60616)

Honorable Guests:

- Professor Maohua Wang, CSAE Honorary President; Academician, Chinese Academy of Engineering
- Professor Xiwen Luo, CSAE Vice President
- Dr. Naiqian Zhang, AOC President
- Dr. Qiang Zhang, AOC Vice President
- Dr. K.C. Ting, AOC Professional Development and Award Committee Chair, ASAE Fellow
- Dr. Hongwei Xin, AOC Meetings and Conferences Committee Chair

Meet our distinguished leaders, make new friends, share experiences, taste good Chinese food, and ... **IT'S A FREE DINNER!**

Meet us in the lobby of Hyatt Regency Hotel at 5:00 pm, July 29, 2002

Cost:

- Free for AOC student members; \$5 for student members' families (kids free).
- \$10 for non-members, or, bring \$5 annual due to become a member to enjoy a free meal!

