AN INTRODUCTION TO KOREAN FOOD CULTURE
BY PROFESSOR CHERL-HO LEE
SECRETARY GENERAL, CONGRESS XI

The history of food and dietary culture is a record of the human wisdom necessary for survival in a given environment, and it thus provides us with the basis for anthropological interpretation. On the Korean peninsula, which has four distinct seasons, the level of food technology must have been advanced enough to develop and sustain a civilization over the past 5,000 years. This assumption is indirectly based on the fact that the mountainous peninsula nurses one of the most densely populated societies in the world.

Koreans were assumed to be the first people to experiment with soybean fermentation, sparking the beginnings of the soy sauce culture of the Orient. Their traditional fermentation technology was so advanced that they taught their techniques to neighboring countries. The history book of Wei, the Chinese dynasty of the third century, praises the fermentation skill of the Korean people. The ancient Japanese history book, Kojiki, says that a man from Paekje, one of the three kingdoms in Korea of the same century, taught them rice-wine making. This man’s memorial tablet is kept in a shrine, the Matsuo Taisha, in Kyoto, and all the rice-wine producers in Japan attend an annual worship ceremony for him, in order to pray for success in their own wine brewing. Today, Korean kimchi, another food made through fermentation, is being introduced in Japan and appeals not only to the Japanese, but to people around the world.

Korean thought on food and agriculture has been deeply influenced by Chinese medicine and by Chinese philosophical ideas, such as “Yin and Yang” and “Five Phases Theory.” Food was considered to be the fundamental source of health, and it was believed that all diseases could be cured by the control of food intake. Without any knowledge of the chemical composition of foods, their nutritional value could be evaluated solely by their medicinal effects on human subjects.

While the science of nutrition in Western society was tested mainly through animal experiments, Asian concepts of food and nutrition developed through long experience with human trials. Tongui pogam, a medicinal book
written by Hur Jun in 1611, is a compilation of the results of vast trials of the physiological effects of food materials on the human body. Yi Che-ma, a famous physician of Choson in the nineteenth century, classified human body types into four groups and prescribed different medicinal treatments and food supplies for each.

On the basis of these philosophical ideas and this medical knowledge, the ideal diet for Koreans was standardized between the fifteenth and nineteenth centuries. Shiui chonso, written in the nineteenth century, as well as other books written between the seventeenth and the nineteenth centuries, outline the standard meal of Koreans, consisting more or less of a bowl of cooked rice, a bowl of soup, and a bowl of kimchi. To this basic menu, side dishes are added, forming a three-dish meal (samch’op-bansang), a five-dish meal (ocht’op-bansang), a seven-dish meal (chilch’op-bansang), and so on.

Recently, the nutritional value of the Korean traditional diet was analysed using the seven-dish meal of Kim Ho Jik (1944) and the standard weekly menu of Pang Sin Young (1957) – and was compared to the current “Recommended Daily Allowance” for Koreans. The Korean traditional diets were estimated to be able to supply from 2,000 to 2,500 calories and from 80 to 90 grams of protein per day. The energy constituents were 73 to 77 percent carbohydrates, 15 to 18 percent protein, and 10 to 12 percent lipids. Animal protein was 20 to 30 percent of the total protein. It appears that the Korean traditional diet could supply amounts of protein, minerals, and vitamins sufficient to nourish an adult male whose energy intake exceeded 2,000 calories per day.

SAVOUR THE SEOUL CONGRESS APRIL 22-27, 2001

IUFoST CONGRESS XI

The Congress XI Scientific Committee has developed an excellent programme after more than four years of planning, with a large proportion of the programme crystallised following Congress X, held in Sydney, Australia October 1999. Now that the international congresses are being scheduled at roughly two-year intervals, IUFoST believes that each congress will benefit from a well-defined focus and each must build on the scientific discussion from previous world congresses, thereby presenting a seamless flow of scientific discovery in the international community.

Acting on this suggestion, our Korean colleagues have successfully used a more region-specific focus in organising a strong technical programme offering many choices for participants. The first pre-congress internet discussions (4 sessions with 197 papers) were organised by KoSfoST and resulted in three congress sessions from the internet conference papers. Collaboration with the International Union of Nutritional Sciences (IUNS) is evident in a symposium cosponsored with IUFoST and in other sessions pertaining to nutritional science. This recognises that nutritional science and food science are closely related and have many mutual interests.

The final programme, as announced in January 2001 (www.congress2001.or.kr), is composed of five pre-Congress short courses, round table discussions, a founder’s lecture, nine plenary lectures, 48 symposium sessions (307 papers), and 14 poster sessions (649 papers). There is more than enough fascinating, new information for everyone. The plenary lectures cover the spectrum of food science and technology, issues, featuring topics such as Functional foods: Eastern perspectives; Future foods: More than nutrition, World food supply in the 21st century; Food safety: A challenge for the food science and technology community; Food science and technology university programmes and their relevance to economic development; Oriental food in the 21st century; Retrospect and prospects of food research in Korea; Codex Alimentaria and international food trade; Future foods: East meets West.

Among the many exciting symposia are sessions dealing with region-specific foods and processing, engineering and biotechnology, Asian seasonings and spices, food quality/value assessment, food irradiation, processing of soy foods, nutrition, Asian fermentation, HACCP and predictive microbiology, food lipids, health foods.

The only way to truly savour and appreciate this excellent, well-organised international congress is to make sure that you are there as a participant. Come join us in Seoul, Korea, April 22-27, 2001 for an exceptional experience and to increase your knowledge about international developments in food science and technology at the 11th World Congress of Food Science and Technology.

FOOD FACTORY OF THE FUTURE

PROF. NILS BENGTSSON

With regional, governmental and industrial support, a substantial two-stage extension of the Swedish Institute of Food and Biotechnology (SIK) is in progress to harbour two new activities of considerable importance to the de-
velopment of Swedish food industry. The first stage, a Centre for Product and Competence Development for small and average size food industry will be inaugurated in May this year.

The second stage will be a demonstration plant for food production, named “Food Factory of the Future”, which will be using the latest innovations in flexible, minimal processing, advanced process control and IT, clean room technology etc., including knowledge and technology transfer from other industrial branches than food. Education and application training for students as well as industrial staff on new technologies will form an important part of the planned activities. A comprehensive survey of problems and future needs in industry is being carried out to set the priorities for project selection and equipment acquisitions for the centre.

We believe that, when it is in operation, such a unique and futuristic centre will inspire food industry to take advantage of new technologies, methods and production techniques as a means of staying competitive in the production of safe foods with a high level of consumer acceptability. At the same time, the centre will be a show room towards food industry for its suppliers of new equipment, packaging, control systems etc., integrated into novel concepts and ideas for production systems.

Focus will be on fresh ready meals, chilled or frozen, an area in current rapid expansion, with emphasis on flexible assembly, high hygienic standards and novel methods of process control and traceability. Flexibility and economy, also in short series production, will be sought for as key issues for Swedish food industry.

To set the stage for this centre and programme, an international symposium titled Food Factory of the Future will be arranged in Göteborg, Sweden, from June 27-29 in collaboration with EFFoST and Flair-Flow.

The symposium will build on the following key words and concepts:

- New manufacturing concepts
- Structure Engineering
- Process design for structured foods
- Process control and food traceability
- Non-invasive, on-line measurements
- Automation in food assembly
- Flexible food manufacturing
- Hygienic design and hygienic materials.

The possibility of dealing with sophisticated levels of complexity and interdisciplinary research opens up new perspectives for food manufacturing. So, for example, will precise knowledge on how to create tailor made structures under dynamic conditions be a key for exact process design.

This symposium will highlight opportunities to develop new food manufacturing technologies for future food manufacturing, by presenting results from on-going research and developments in academia and research institutes as well as among food industries and their suppliers. An important objective is to present and discuss Food R&D directions for the future.

Editor’s note: For more information on the symposium, contact: E. Johansson, SIK, Box 4501, SE-402 29 Göteborg, Sweden, Tel: + 46 31 335 56 00, Fax: + 46 31 83 37 82, E-mail: ej@sik.se, Website: www.foodfactory.sik.se

The sprawling campus of the Central Food Technological Research Institute, Mysore, India, wore a festive look as 2000 past and present employees of the Institute gathered to celebrate the Golden Jubilee of the Institute last October. Preparations for the momentous occasion had started almost a year before, beginning with a Golden Jubilee lecture series in which eminent scientists from India and abroad and three Nobel Laureates spoke on research and developments in several areas of science.

The Golden Jubilee Day function began with Dr. V. Prakash, Director, CFTRI, welcoming the gathering, which included prominent citizens and industrialists from the city of Mysore. Expressing his joy over the Institute’s achievements in the past five decades and gratitude to the Founding scientists for laying the sound scientific foundation for the Institute, Dr. Prakash recounted the events that led to the setting up of the Institute. “From a mere 58-staff”, the Institute has grown in strength to the present 700 plus”, he said. With accolades to the visionaries whose forethought made the establishment of the Institute possible, Dr. Prakash urged the scientists to “reflect back on how this Institute came into existence, what were the initial limitations and how early achievements were made with rather limited facilities and how the Institute grew to the level where today it is internationally acclaimed.”

Several of the founding scientists present spoke on their experiences in the Institute at the time of its establishment. Noted among those who spoke were Dr. M.R. Chandrasekhar, the scientist involved in the develop-
ment of Baby Food from fat-rich buffalo milk that set the stage for a White Revolution; Dr. T.N. Ramachandra Rao, an eminent Food Microbiologist, Dr. H.S.R. Desikachar who envisioned convenient foods based on traditional recipes, Dr. Shanthis Narasimhan, and others. Former directors of the Institute, Sri C.P Natarajan, Dr. H.A.B. Parpia, Dr. B.L. Amla and Dr. S.R. Bhowmick, also graced the occasion and spoke.

Delivering the Golden Jubilee Day Address, Dr. R.A. Mashelkar, Director-General, CSIR, urged the youth of the nation to have pride in being an Indian. “Total innovation in everything that we do is the need of the day and if one is not proud of being an Indian, nothing can work,” he said. ‘Investing in the intellectual capital,’ that is aplenty in India is the only way to make India a strong force in the 21st century. “Total innovation in everything that we do is the only way if we have to create a tomorrow for India,” he opined.

“The fact that many huge industries are coming forward to invest in R&D centres in India is sufficient proof of the intellectual capital within the country. We Indians are the best in terms of intellectual capital; there is no doubt. The serious issue is that great science and technology cannot grow in a society which is not innovative, not open, and not conducive to innovation,” he said, and the best way to create an atmosphere conducive for innovations was to have pride to invest in the country’s intellectual capital. “New India cannot grow in a sea of cynicism”; Dr. Mashelkar cautioned and urged the youth to think positively.

Lauding the efforts of CFTRI over the past 50 years and the contribution to science and food technology, Dr. Mashelkar said that the Institute had contributed in a big way both visibly and invisibly. “What is visible is a product like Amul and what is invisible is the human resource development,” he pointed out. In this context, he also referred to the laudable contribution the Institute’s scientists made towards the ‘patent-wars’ on Turmeric, Basmati rice and Neem, which Team India and Team CSIR fought successfully.

On this special occasion, two publications - the first one on the R&D achievements of the Institute during the past five decades titled ‘Research and Development at CFTRI: 1950-2000, A Golden Treatise’ and ‘Reminiscences: Fifty years at CFTRI’, documenting the history of CFTRI through the recounting of the experiences of its staff of the past 50 years - were released by Dr. R.A. Mashelkar. A CD-ROM compilation on the growth and achievements of the Institute as well as the various services offered by it to the industry was also released by him.

FOODCOMP’2001

The Graduate School VLAG (Advanced Studies in Nutrition, Food Technology, Agrobiotechnology and Health Sciences) in Wageningen, the Netherlands, is holding the Fifth International Graduate Course on Production and Use of Food Composition Data in Nutrition at Wageningen, the Netherlands, 1-19 October 2001.

FoodComp’2001, held in co-operation with the United Nations University, the Food and Agriculture Organisation of the United Nations, and the International Union of Nutritional Sciences, is intended for those involved in nutritional database programmes as analysts, compilers or users. The course also will be of value to those teaching nutrition and nutritional aspects of food chemistry.

The course’s aim is to show how those involved in the production of analytical data for nutrients in foods, and the compilation of this data into food composition tables and nutritional databases, contribute to the quality and usefulness of these compilations in nutrition. The course will show how this understanding can be achieved and the benefits that flow from the collaboration of users, analysts and compilers. Ways in which nutritional databases are used and how these determine the range of nutrients for which values are required and the foods for which values are needed will be reviewed. The choice and validation of analytical methods to give nutritionally relevant values will be discussed.

The course will comprise lectures, seminars and group work. The course fee, including an Euro 330 non-refundable deposit, is Euro 3300. The fee covers accommodation and meals at the Wageningen International Congress Centre, course materials, tuition fees and excursions. The closing date for applications is 1 July 2001.

Further information can be obtained from Secretariat FoodComp 2001, Wageningen University, Division of Human Nutrition and Epidemiology, P.O. Box 8129, 6700 EV Wageningen, the Netherlands, telephone: +31 317 485108, telefax: +31 317 483342, E-mail: foodcomp@info.nutepi.wau.nl. For more information: www.wau.nl/vlag
The Federation of Institutes of Food Science and Technology in the ASEAN, held their annual meeting during the 7th ASEAN Food Conference in Manila, The Philippines, 20 November 2000. All members of FIFSTA were represented at the meeting, chaired by President, Dr. Elias Escueta. Observers included IUFoST President-elect, Alan Mortimer, Institute of Food Technologists’ President, Mary Schmidl, Australian Institute representative Ken Buckle and FAO representative, Alastair Hicks.

**Vietnam**: Dr. Luu Dzuan, VAFST, informed the meeting that the Government of Vietnam has agreed to host the next ASEAN Food conference in 2003. Representatives of Vietnam’s Ministry of Agriculture and Ministry of Science, Technology and the Environment were present at the closing ceremonies of the Manila ASEAN Conference for the ceremonial turnover of responsibility for the food conference from the Philippines to Vietnam.

**Philippines**: Dr. Estrella Alabastro gave an update on the 7th ASEAN Food Conference, indicating that funding received had allowed the organisers to invite plenary session speakers even from beyond the ASEAN, as well as to provide cash awards for best poster presentations and best graduate research papers. The grants supported the participation of 50 ASEAN delegates, five from each ASEAN country. The Philippine government, through the Department of Agriculture and the Department of Science and Agriculture, provided funds for invited foreign speakers in technical sessions and subsidies for local participants.

In addition to the preparatory activities related to the ASEAN food conference, PAFT also held a series of seminars on new technologies and organised fora on legislation affecting the food industry. An example of such a forum was one on the proposed Clean Water Act where the main author of the bill was invited to discuss provisions pertinent to the food industry.

**Indonesia**: Dr. Deddy Muchtadi reported on the activities of IAFT/PAFT including:
- Seminars on various topics in Food Technology
- Seminar/workshop on survival strategies and mechanisms for SMEs
- Review of the Food Technology curriculum

**Thailand**: According to Dr. Sakarindr Bhumiratana, the following major activities were carried out by FoSTAT since the last FIFSTA meeting:
- Selection of best food product and best graduate research paper
- Several seminars/workshops on various topics such as: Food Ingredients, the EU White Paper, Codex Standards, Upgrading of Microenterprises through Technology

Planned activities for the next few months include:
- Co-hosting the World Congress on Clinical Neutrativ Substances and Neutraceuticals in December
- A conference in cooperation with the Thai Food Exporters and Thai Muslim Food Exporters in May 2001
- The PROPAK Asia Exhibition in June 2001
- A series of meetings on GMO labelling in 2001

**Singapore**: The SIFST activities, as reported by Mr. Lim Chee Kian, include:
- Organising the Food Ingredients Asia Exhibition (conference in May 2001)
- Organising a technical trip to Queensland, Australia in February 2001
- Raising scholarships through the annual dinner meeting
- Selection and granting of best product and student awards

Mr. Lim Chee Kian also informed the FIFSTA group that the Singapore Polytechnic has been regularly holding a noodles training course in cooperation with the US Wheat Board. This course has reserved places for nominees from within FIFSTA; one per country and the nominations should be forwarded through SIFST.

Dr. Alastair Hicks discussed the development of Laos, Cambodia and Myanmar with respect to their readiness to form food science and technology associations. It was

(continues on page 8)
INTERNATIONAL EVENTS IN RED ARE SPONSORED BY IUFoST.

JUNE 22-27
Institute of Food Technologists (IFT) Annual Meeting, Morial Convention Center, New Orleans, Louisiana, USA. Contact: IFT, 221 N. LaSalle Street, Suite 300, Chicago, Illinois, USA 60601-1291, Tel: +1 312 782 8424, Fax: + 1 312 782 8348, E-mail: info@ift.org

JUNE 27-29
Food Factory of the Future Symposium, Göteborg, Sweden. Contact: E. Johansson, SIK, Box 4501, SE-402 29, Göteborg, Sweden, Tel: + 46 31 335 56 00, Fax: + 46 31 83 37 82, E-mail: ej@sik.se, Website: www.foodfactory.sik.se

JULY 1-6
World Chemistry Congress, Brisbane, Australia. Contact: World Chemistry Congress Secretariat, PO Box 177, Red Hill Q 4059, Australia, Tel: + 61 7 3368 2644, Fax: + 61 7 3369 3731, E-mail: cc2001@ccm.com.au, Website: www.ccm.au/wcc

JULY 6-13
International Workshop and Mini-Symposium on Rapid Methods and Automation in Microbiology XXI, Kansas, USA. Contact: Daniel Fung, Workshop Director, Kansas State University, Animal Science and Husbandry, 139 Call Hall, Manhattan, Kansas, 66506-1600, USA, Tel: + 785 532 5654, Fax: + 785 532 -5681, E-mail: dfung@oznet.ksu.edu

JULY 10-13
Global Change Open Science Conference, Challenges of a Changing Earth, Amsterdam, the Netherlands. Contact: Organisers, Congrex, Holland, A.J. Ernststraat 595K, 1082 LD Amsterdam, the Netherlands, Tel: +31 20 5040 200, Fax: +31 20 5040 225, Conference Website: www.sciconf.igbp.kva.se

JULY 23-AUGUST 3
2nd University of Zimbabwe/International Agricultural Centre Workshop on Application of Quality Assurance Systems in Small and Medium Scale Food Processing Enterprises, Harare, Zimbabwe. Contact: Project Coordinator, Institute of Food, Nutrition and Family Sciences (IFNFS), University of Zimbabwe, PO Box MP 167, Mount Pleasant, Harare, Zimbabwe, Tel: +263 4 303 211, Ext. 1413, Fax: + 263 4 336491, E-mail: foodscience@science.uza.ac.zw

AUGUST 8-10
II National Congress of Science and Food Technology, organised by the Costa Rican Association of Science and Food Technology (ASCOTA) and National Center of Food Technology (CITA), Food Safety and the regional food industry, San Jose, Costa Rica. Contact: Centro Nacional de Ciencia y Tecnologia de Alimentos, CITA, Tel: +506 207-3457, Fax: +506 253 3762, E-mail: citaucr@cita.ucr.ac.cr, Website: www.cita.ucr.ac.cr
IUFoST Newsline — March 2001

EVENTS OF INTEREST

AUGUST 27-31  17th IUNS International Congress of Nutrition 2001 on Modern Aspects of Nutrition - Present Knowledge and Future Perspectives, Vienna, Austria. Contact: Dr. I. Elmadfa, Institute of Nutritional Sciences, Althanstrasse 14, A-1090 Vienna, Austria, Tel: +43 31 336 8213, Fax: +43 31 336-773, E-mail: ibrahim.elmadfa@univie.ac.at

SEPTEMBER 10-12  16th SAAFoST Biennial International Congress and Exhibition, Food Renaissance for Africa? Durban, South Africa. Contact: SAAFoST Congress 2001, PO Box 1935, Durban, 4000, South Africa, Tel: +27 31 332 1451, Fax: +27 31 368 6623, E-mail: turner26@galileosa.co.za

OCTOBER 1-19  Fifth International Graduate Course on Production and Use of Food Composition Data in Nutrition, FoodComp 2001, Wageningen, Netherlands. Contact: Secretariat FoodComp2001, Wageningen University, Division of Human Nutrition and Epidemiology, PO Box 8129, 6700 EV Wageningen, the Netherlands, Tel: +31 317 485108, Fax: +31 317 483342, E-mail: foodcomp@info.nutepi.wau.nl, Website: www.wau.nl/vlag

OCTOBER 21-23  6th Karlsruhe Nutrition Symposium, Effects of Processing on the Nutritional Quality of Food, Karlsruhe, Germany. Contact: Federal Research Centre for Nutrition, Institute of Process Engineering, Haid-und-Neu Strasse 9, 76131, Karlsruhe, Germany, Tel: +49 721 6625 300, Fax: +49 721 6625 303, E-mail: walter.wolf@bfe.uni-karlsruhe.de, Website: www.bfa-ernaehrung.de

NOVEMBER 5-7  FI Europe. International exhibition and conference on food ingredients, semi-finished products, product development and quality control, London, UK. Contact: Ivonne Twigt, Miller Freeman BV, Tel: +31 346 559444, Fax: +31 346 573811, E-mail: mbos@unmf.com, Website: www.fi-events.com

NOVEMBER 13-17  2nd IUPAC-International Symposium on Sweeteners: Comprehensive Studies on Developments in the 21st Century, Hiroshima, Japan. Contact: 2nd IUPAC-ISS Secretariat, c/o Prof. Kazuo Yamasaki, Institute of Pharmaceutical Sciences, Faculty of Medicine, Hiroshima University, Hiroshima 734 8551, Japan, Tel: +81 82 257 5285, Fax: +81 257 5289, E-mail: yamasaki@pharm.hiroshima-u.ac.jp, Website: www.heyl.to/iss/

NOVEMBER 28-30  FI Central Eastern Europe, Moscow, Russia. International exhibition and conference on food ingredients, semi-finished products, product development and quality control. Contact: Ivonne Twigt, Miller Freeman BV, Tel: +31 346 559444, Fax: +31 346 573811, E-mail: Roudejans@unmf.com, Website: www.fi-events.com

NOV. 28 - DEC. 1  Second International Conference on Nutraceuticals and Functional Foods, Portland, Oregon, USA. Contact: F. Shahidi, Tel: +1 709 737 8552, Fax: +1 709 737-4000, E-mail: nutra@tca.net, Website: www.worldnutra.com

2002

MARCH 5-7  Functional Foods 2002. Netherlands Congress Centre, Den Haag, Netherlands. Contact: Fiona Angus at Leatherhead Food Research Association, Randalls Road, Leatherhead, Surrey, KT22 7RY, United Kingdom, Tel: +44 1372 376761, Fax: +44 1372 386 228

AUGUST 14-21  17th World Congress of Soil Sciences (WCSS), Bangkok, Thailand. Contact: The Secretariat, 17th WCSS Office, Kasetsart University, PO Box 1048, Bangkok 10903, Thailand, Tel: +662 9405787, Fax: +662 9405788, E-mail: o.sfst@nontri.ku.ac.th, Website: www.17wcss.ku.ac.th2002

United Business Media International invests in IUFoST

United Business Media International is committed to assisting the development of food science and technology through IUFoST.

We welcome United Business Media International as an IUFoST sponsor and supporter. Their active participation will help us to achieve our global objectives and strengthen our foundations in the international scientific community.

United Business Media International is a division of United Business Media which is headquartered in London UK. United Business Media International is the organiser of the world’s leading Food Ingredients (Fi), Health Ingredients (Hi), Cphl, ICSE series of food-and pharmaceutical ingredients trade shows and conferences. In 2001, more than 1,000 delegates will attend their five conferences and over 70,000 visitors will meet 3,000 exhibiting companies at their seven trade shows in London, Shanghai, Singapore and Moscow.

United Business Media
agreed that food scientists and technologists from these countries be invited to attend future FIFSTA meetings as observers.

**NEWS FROM POLAND**

PROF. FRANCISZEK KLUZA
CORRESPONDENT

As the political structure of Poland has undergone a transformation in recent years, so have the many institutions, including those related to scientific activities, faced dramatic changes.

The first step towards reformation of the sciences in Poland has been a complete change in the financial system. It came about through the establishment of the State Committee for Scientific Research (KBN) in 1991, a major government institution responsible for state policy in science and scientific research affairs. This institution had as its task the development of state policy related to science and technology, preparation of budgets, directives to scientific research institutions related to research and development, funding for scientific research, preparation of international agreements, initiation and evaluation of scientific projects in Poland.

The integration of Poland into the European Union structure and the progress towards the integration of scientific research has had a significant effect on the direction of Polish food science and technology, in order for it to comply with and complement European Union activities. Academic institutions and the Polish Academy of Science (PAN) structures have served as catalysts for change, stimulating debates and activities. The conclusions reached in these settings, the motions carried at business meetings, the scientific congresses and conferences, as well as publications of proceedings, are forming the bases for government’s decisions.

During the year 2000, several Polish scientific meetings were of particular importance.

The first was Congress 2000 on the Polish Food Economy and Science of Food and Nutrition held in Warsaw last April and the second was the XXXIst Scientific Session of the Committee for Food Technology and Chemistry PAN in Poznań, September.

Congress 2000 gathered 600 of the most famous representatives of food science and technology following more than two years of preparation. On the basis of discussions and materials collected through proceedings of six scientific sessions, twelve focus groups and three plenary sessions, the Congress was given resolutions on Polish food science, technology and economy (state and perspectives of scientific and economic advancement, Poland’s membership in EU). The need to elaborate a new legal act controlling the whole area of food production and traffic -from field to table- in accordance with EU legislation was confirmed. A schedule of comprehensive work, starting with setting six basic objectives was accepted. This progress was possible because scientists and practitioners such as farmers, technologists, food scientists, doctors, economists, lawyers and administration representatives all took part in the preparations and technical sessions of Congress 2000.

The XXXIst Session of the Committee for Food Technology and Chemistry PAN reflected on the current state and development of research in the field of food science and technology in Poland. Over 400 scientists participated in the following programme: material and food quality and evaluation methods (121 papers), physical and chemical processes in food production (111 papers), biochemical and biological processes (85 papers) and nutritive value and nutrition (48 papers) - with 38 lectures.

The results of the conference indicated a far-reaching agreement on the scientific research problems within Europe, and world trends, and confirmed that Poland has very talented scientists at its disposal. These scientists are all engaged in the process of transforming the food economy sector in Poland. Activity taking place within the State Committee for Scientific Research (KBN) is noteworthy as it concerns ERA and the ‘centres of excellence’. In Poland there are nine scientific research centres working towards the ‘centres of excellence’ category. Potential financial support for these centres from the European Commission makes it even more attractive for the scientists as the funding will bring them closer to the first rank scientists from the European Union.

However, the trends occurring in the economic activity of the state, that manifest themselves in expenditure decreases in the sphere of education force some changes. The basic ones include the increase of financial support for scientific projects, as well as funding for the participation of the Polish groups in the Vth Framework Programme of the EU, thereby limiting financial support elsewhere. This trend has been accompanied by changes in legislation and in the substantial reorganisation of the KBN. Food science and technology has been affected as the problems in agriculture and food economy in Poland take priority in conjunction with Poland’s accession to the European
Union. In the end, though, all these procedures aim at improving the infrastructure of Poland.

**ADHERING BODY PROFILE: NEW ZEALAND INSTITUTE OF FOOD SCIENCE AND TECHNOLOGY**

Formed in 1965, the New Zealand Institute of Food Science and Technology was initially linked to the emerging discipline of food technology at Massey University in Palmerston North. Today the Institute is much more broadly based and truly national. The Institute’s membership comprises food technologists and scientists from many disciplines, including Consumer and Applied Science (previously Home Science), Food Science and Food Engineering, as well as Food Technology. Through the common link of “food manufacturing”, the Institute includes people who come from diverse educational backgrounds.

The discipline of food technology at Massey was officially established in 1960, with the inaugural professor being Kelvin Scott. This extended the earlier Logan Campbell Chair in Dairying. By 1963, Massey University’s Council was ready for further innovations, and a new option was added to the Bachelor of Food Technology degree; covering food materials, nutrition, product development and marketing.

By this time the first food technology students were graduating, but there was no professional organization to which they could belong. Professor Scott started corresponding with the Institute of Food Technologists (USA). He then broached the idea of forming a New Zealand organization at New Zealand’s first Food Technology Conference, which was run by Massey’s Department of Food Technology in May 1964. Within a month a draft constitution was in circulation, and on 17 September 1964 the draft constitution was agreed, along with the name of the new organization, namely “The New Zealand Institute of Food Science and Technology”. This was ratified at the 1965 conference. Appropriately, the Institute’s first President was Professor Kelvin Scott, with Garth Wallace serving as Secretary/Treasurer.


The Institute developed further in 1970, becoming an Adhering Body of the International Union of Food Science and Technology. The Institute further supported the advancement of science by becoming affiliated to the Royal Society of New Zealand in 1972. That year also saw the first joint convention of the Australian and New Zealand Institutes of Food Science and Technology, at Surfers Paradise, Queensland.

One of the strongest advocates for establishing a food technology degree was John Clark Andrews, Massey University’s first Chancellor. His interest and involvement in food technology had stretched back many years. In 1945, for example, he had given an address on the topic, as President of the New Zealand Institute of Chemistry. The Institute’s prestigious J.C. Andrews award recognises his crucial role, and is a fitting memorial to Dr Andrews, who died in 1966. Dr Garth Wallace was the first recipient of the J.C. Andrews’ Award, while Professor Scott became the Institute’s first Fellow.

In keeping with its role of safeguarding standards in the profession, the Institute introduced a Code of Ethics in 1968. The Young Technologists Award, an award aimed at promoting the profession of food science and technology, was set up in 1973. This has been followed by a number of other awards, including several to recognise high-performing students undertaking tertiary educational courses in food science and technology.

The Institute has expanded greatly, and was incorporated in 1969. Its original newsletter, consisting of a few duplicated sheets, was gradually upgraded and by 1981 the newsletter was named *The Food Technologist* and more recently the *New Zealand Food Journal*. As the Institute’s official journal, another name change sees *Food New Zealand* relaunched this year. This journal amalgamates and builds on the foundations established by *New Zealand Food Journal* and the Dairy Industry of New Zealand’s (DIANZ)
publication *Dairy Technology*. This publication continues to reflect the important role the New Zealand Institute of Food Science and Technology has to play in New Zealand’s food industry.

For over 20 years the Institute’s journal has provided a common forum for members throughout New Zealand and overseas. With six publications per year, *Food New Zealand* offers news and features on research and science from around New Zealand and the world including a Peer Reviewed paper. There is coverage about the manufacture of food, technology, packaging, processing, food safety and training issues and a section dedicated to branch and division news.

**ADMINISTRATION**

The Institute is a non-profit making incorporated society, run mainly on a voluntary basis but still governed by its Constitution and Rules. The President is elected annually, and is supported by the Vice President, Honorary Secretary and Honorary Treasurer who are also elected annually. The Executive Committee consists of these four people plus the Past President. A part-time Executive Manager manages the day-to-day matters of the Institute. In addition, there are 7 regional branches of the NZIFST within New Zealand, each with their own committee.

Due to the geographic spread of the Executive and Council, meetings are generally by teleconference link to each Branch center although face-to-face meetings are held in conjunction with the annual conference each year.

The needs of particular groups of members for specialised knowledge in particular subject areas are met through specialist divisions, which are organised on a national basis. Divisions have their own newsletters to keep their members up to date in their field of interest. They also convene and manage specialist technical sessions at the annual conference of the Institute, and may also organise technical workshops, seminars or courses at other times, on subjects of particular interest to their members. The seven divisions of the Institute are: Sensory Evaluation, Food Safety, Seafood Technology, Food Marketing, Product Development and Nutrition and Food Engineering.

Every year the Institute organises a conference, where local and international speakers present papers and workshops on issues related to food science and technology. These conferences are held at different locations around New Zealand each year.

Every five years a joint conference is held with the Australian Institute of Food Science and Technology. The location of these conferences alternates between the two countries.

**40TH SAAFOST ANNIVERSARY SYMPOSIUM PRESENTATIONS SUMMARY BY AUBREY PARSONS CORRESPONDENT**

Obtaining sufficient food was once life’s major objective. Now, it is mainly ‘eat to live’. Formerly, there was a need to produce numerous offspring, so that survivors would sustain parents in old age. Now, the norm is one or two per family. Past average survival rates averaged 20 years, as so many died young. Men can now expect to live an average of 75 years, 80 years for women.

And food habits? Compared with the erratic and often monotonous fare of the past, the variety and palatability of the everyday diet have improved tremendously. Overeating is irresistible.

However, it should be known that eating less, eating more plant foods, being more active, restricting non-dietary risk factors (smoking, alcohol consumption), not only will extend life still further, but far more importantly, lengthen the greatly desired “years of wellness”.

Consumer concerns regarding the impact of diet on general health should be seen by the food industry as both a threat and an opportunity. There is no doubt that processed foods in particular are coming under an increasingly critical spotlight from the point of view of both broad nutritional content and also the impact, both positive and negative, of specific health components. The food industry needs to take cognizance of these concerns and respond to them in three different ways.

Firstly, there is a clear ethical requirement to provide consumers with sufficient information on their products to enable them to make informed choices. Secondly, desirable nutritional characteristics must be considered when formulating processed foods. Thirdly, a clear marketing opportunity exists for so-called functional foods with specific benefits to health.

Most people involved with food and nutrition are aware of the existence of guidelines recommended for good nutrition. The question that has been asked internationally and here in South Africa is how appropriate are these messages and how successful have they been in promoting healthy diets and lifestyles? South Africa is a
developing country with a heterogeneous socio-economic, multi-cultural society. It is a society in transition and this is reflected in its health profile where under and over nutrition co-exists, not only between populations, but also within populations and even within the same households. Data regarding the health/disease status of South Africans and their food consumption patterns indicates that nutrition education has not made much impact. Nutrition is described by WHO as a ‘Fundamental pillar of human life, health and development across the entire life span, and as such is a prerequisite to achieving the fundamental WHO goal of Health for All’. However, despite the lofty ambition, the global picture is one of millions still suffering from hunger and malnutrition.

Nearly 30 percent of humanity - infants, children, adolescents, adults and older persons in the developing world are currently suffering from one or more of the multiple forms of malnutrition. Some 40 percent of the 10.7 million deaths among under-five children each year in the developing world are associated with malnutrition. Iodine deficiency is the greatest single preventable cause of brain damage and mental retardation worldwide. Vitamin A deficiency is the major cause of preventable childhood blindness.

While infectious diseases remain endemic in South Africa, morbidity from chronic diseases is increasing, along with the prevalence of contributing risk factors such as smoking and a change from a more traditional to a Westernised diet. For example, in 1990, 7.6 percent of deaths in adult South Africans were attributed to tuberculosis and the prevalence of HIV infection was estimated to be 7.5 percent. At the same time, chronic diseases or lifestyle accounted for nearly 30 percent of deaths between the ages of 35-64 years. The majority of South Africans have at least one modifiable risk factor for chronic disease. Furthermore, the prevalence of chronic diseases of lifestyle approaches that of many developed countries.

Chronic diseases of Lifestyle (CDL) are a group of diseases that share similar risk factors. In the face of the quadruple burden of disease suffered by South Africans, CDL is perceived as less important as these conditions and their risk factors present with lesser urgency as the other conditions afflicting South Africans. The result of this incorrect perception is that CDL and their early detection and cost-effective treatment of CDL risk factors do not take place. This results in unnecessary premature morbidity and mortality due to CDL. The economic impact on the South African economy is much larger than expected and rarely considered when planning health services and allocating health resources. If we want to prevent CDL becoming the major cause of morbidity and mortality in 2020, as predicted by the World Health Organisation, the necessary steps need to be taken now.

The International Union of Food Science is providing support for the 10th Australian Food Microbiology Conference, 28-30 March, in Melbourne, to enable food microbiologists from Indonesia, Malaysia, Papua New Guinea, the Philippines, Singapore, Thailand and Vietnam to participate in an International Workshop on Hazard Analysis and Critical Control Points (HACCP) and its Application to Food Safety.

The accompanying Australian Institute of Food Science and Technology conference, Food Microbiology in the 3rd Millennium, focuses on food safety strategies across the international and national spectrum. It is bringing together a review of the latest technologies and practices available to monitor and manage the safety and quality of foods, including the new generation of minimally processed products.

Editor’s note: Members wishing to apply for IUFoST support or sponsorship, please contact the IUFoST Scientific Council, c/o the Secretariat address, with details of the event and programme outline.

IUFoST GOVERNING COUNCIL 2001-2003

The results of the Governing Council election for the term 2001-2003 have been tabulated by the IUFoST auditors and the elected members of the GC, effective April 27, 2001, will be:

- Professor Geoffrey Campbell-Platt (UK)
- Professor Franco Lajolo (Brazil)
- Mr. Aubrey Parsons (South Africa)
- Professor Kwan-Hwa Park (Korea)

We wish to thank all those who participated in the election process and express our appreciation for your contributions to the International Union of Food Science and Technology.
Dear IUFoST Friends and Colleagues,

The year 2000 was one of sweeping change in the world, particularly in the issues and challenges facing food science and technology and related disciplines. Events moved quickly and scientists were called upon in droves to answer questions of the world community. We responded with vigour.

The events of last year highlighted the need for a central body of food science and technology in the international community that will respond to the increasing demands for information. IUFoST has begun to respond to this challenge.

Just over a year ago, the new IUFoST strategic plan was implemented and a new management committee established as a “quick response team” within the Governing Council. IUFoST now provides services that our international community of members have told us they need. Not all are in place yet, in fact there is a long way to go, but the start has been made. We looked first at how communication could be improved among food scientists and technologists and we, with the expertise and assistance of our Korean colleagues, established the first-ever food science and technology internet conference. This formed the prelude to World Congress XI in Seoul, taking place next month, in April 2001. Workshops and short courses have been added to the Congress agenda and significant issues facing us all today are the backbone of the programme. Eminent scientists from throughout the world will be there to discuss and debate with others in the field.

We looked at ways in which we could further stimulate discussion, exchange of knowledge and expertise and together with our US Adhering Body, the Institute of Food Technologists, we developed an internet magazine for and about the world community of food science and technology. It debuted officially in June and features articles, in various languages, of interest to us all and highlights activities in many regions. The World of Food Science will host a discussion group on Biotechnology beginning in March to further promote exchange of ideas and information. This will lead to IUFoST reports on Biotechnology worldwide. Other discussion groups will follow on subjects of particular and immediate importance to us all.

Functional Foods, Food Law, Core Curricula and Distance Learning are all subjects of new IUFoST Task Forces, along with Post Harvest Technology, which will be focus of IUFoST activities during the year. Each Task Force has an international objective, specific timeframe and accountability and each is expected to make an impact on the world community as they draw views and expertise from all corners of the globe.

Support for IUFoST activities is growing amongst associated institutions. We must capitalise on this support and group ourselves together in order to be effective and truly global in perspective. Food Engineers are among those interested in developing a platform within IUFoST to promote their interests in conjunction with our mutual goals. We need to further consolidate our participation and co-operation with CODEX, FAO and WHO so we do not duplicate efforts. We need to actively assist our regional bodies in Europe, Africa, Latin America and South Asia, (EFFoST, ECSAFAFoST, ALACCTA and FIFSTA) to fulfil their mandates and expand their activities within IUFoST. Our members need to keep us informed about their activities so these may be reported to others in the field.

There is much to be done.

The backbone of IUFoST is our global resource of food scientists and technologists and it is to these friends we first express our gratitude for the services rendered by each of you and, through this message, we ask more. Our premier task in 2001 will be to find more colleagues who are willing to devote time and effort to the benefit of the world community of food science and technology. Our priorities for this year are:

• To develop The World of Food Science as the leading internet magazine in our field
• To finalise/to complete our activities in the educational area (distance education/core-curricula)
• To make us more responsive to critical issues such as: Biotechnology, Functional Foods, BSE

In order to accomplish all these tasks, we ask our friends to help us broaden the group of global contributors. Finally, we thank all those who have generously donated their time, efforts and funding to IUFoST. The operational Service Delivery Centre working groups and task forces, as well as our correspondents and committee members, have made tremendous contributions this past year. Our Chilean Society, SOCHITAL and our Korean Society, KoSFoST have devoted huge time and effort to advancing the goals of international Food Science and Technology and to achieving IUFoST’s mission to be the primary organisation in the world arena.

With your help, we can further consolidate our mutual goals in 2001 and provide the services most needed by our family of members and the world community.

Sincerely,

Walter Spiess, President
Officers and Members of the IUFoST Governing Council