

WORKING LANGUAGE

The working language of the conference will be English.

REGISTRATION FEE

No registration fee is charged to participants.

CONFERENCE WEB SITE

Detailed information on administrative procedures including participation and registration is provided on the conference web site:

<http://www-pub.iaea.org/iaeameetings/41984/Scientific-Forum-Food-for-the-Future-Meeting-the-Challenges-with-Nuclear-Applications>

SCIENTIFIC SECRETARY

Mr Qu Liang
Director
Joint FAO/IAEA Division of Nuclear Techniques
in Food and Agriculture
Department of Nuclear Sciences and Applications
Tel: (+43) 1-2600-21610
Email: Q. Liang@iaea.org

ADMINISTRATION AND ORGANIZATION

Ms Martina Khaelss
Division of Conference and Document Services
Tel.: (+43) 1-2600-21315
Fax: (+43) 1-2600-26007
Email: M. Khaelss@iaea.org

"With the global population growing steadily, it has never been more important to develop agricultural technology to reduce hunger and poverty in an equitable and environmentally sustainable manner. Nuclear techniques enable farmers, food processors and government agencies to provide people with more and safer food, while conserving soil and water resources."

Yukiya Amano
Director General, IAEA

FOOD FOR THE FUTURE

Meeting the Challenges
with Nuclear Applications

International Atomic Energy Agency
SCIENTIFIC FORUM

18–19 September 2012
Vienna, Austria



BACKGROUND

The global population is expected to rise in the coming decades. Food production will need to expand dramatically to meet increasing demand. Yet the challenge to ensure food security today has never been greater: fresh water is dwindling and arable land is shrinking. Resources are overexploited. Urbanization and pollution reduce farmland and agricultural productivity. Biofuels compete with food crops for natural resources. Harsher climatic conditions cut food output and threaten ecosystems. With local and global food security at risk, it has never been more important for the world to use agricultural technology effectively to reduce hunger and poverty in an equitable and sustainable manner.

The IAEA assists Member States in using nuclear techniques to develop and improve strategies for sustainable food security. Nuclear techniques are used around the world to increase food production and food safety while conserving plant and animal diversity, as well as natural resources.

SESSION 1

Opening

Statements by the IAEA Director General and invited guests.

SESSION 2

Food for the Future: Increasing Food Production

The world will need to produce 70% more food by 2050 to feed the expected nine billion people. Small-scale farmers who grow crops and rear animals are the source of much of today's food supplies and economic development. Smallholder agriculture is therefore vital to poverty reduction and food security. This session explains how nuclear technology helps Member States to produce more food of a higher quality. The IAEA supports Member States that use nuclear and nuclear related technologies in food and agriculture to optimally utilize land and water resources, enhance favourable crop production traits and improve animal health.

SESSION 3

Food for the Future: Ensuring Food Protection

About 30–40% of the world's crops are lost to diseases and pests before harvest and during storage. The environment is burdened by today's excessive and unsustainable use of pesticides. The invasive animal and plant pests and diseases that further reduce productivity are now spreading much further as a result of climate change. In

turn, these pests and diseases block national and international trade, cause major losses in export incomes, and threaten animal and public health. The IAEA plays a key role in breeding new crop varieties resistant to major plant diseases and in developing and transferring tools to diagnose animal diseases. The IAEA also has the unique mandate to develop and transfer the sterile insect technique, an environmentally friendly method to control plant and animal insect pests. This session discusses how nuclear technologies can help deal with the global challenge of managing animal and plant diseases and insect pests.

SESSION 4

Food for the Future: Enhancing Food Safety

Exposure to chemicals and pathogens in the food supply represents a serious threat to the health of millions of people worldwide, particularly those in developing countries. The IAEA develops technologies to control chemical contaminants in food and to trace, identify and manage emerging food safety hazards as part of a holistic 'farm to fork' food control approach. Food irradiation is also supported by the IAEA as a proven and effective post-harvest treatment to improve food safety and facilitate international trade. This session discusses global challenges in food safety and proposes solutions using nuclear technologies.

SESSION 5

Closing