

# International Quinoa Conference 2016



## First Announcement and Call for Abstracts

Quinoa for Future Food and Nutrition Security in Marginal Environments

December 6-8, 2016  
Dubai, UAE



Food and Agriculture  
Organization of the  
United Nations



# Overview

## Quinoa for Future Food and Nutrition Security in Marginal Environments

The global population is expected to increase to 9.7 billion in 2050 and there are concerns about the capacity of agriculture to produce enough food for the growing population. By some estimates, food production will need to go up by about 60 per cent either through increase in crop yields per unit area or expansion in the arable land by 2050 to meet the demand (World Population Prospects-the 2008 Revision, UN, 2009). Furthermore, several regions already suffering from malnutrition, water scarcity and soil degradation have been forecast to have a large population growth which raises serious concerns about whether traditional agricultural methods and crops species will have the capacity to sustain global food production targets.

Major cereal crops like wheat, rice, barley and corn are progressively failing to withstand increasing salinity and scarce water resources in marginal environments that are most vulnerable to climate change.

Therefore, there is an urgent need to identify alternative solutions to sustaining, and, possibly, increasing agricultural productivity in areas where growing traditional crops has become difficult and sometimes uneconomical. Hence, quinoa can play an important role in eradicating hunger, malnutrition and poverty; furthermore, quinoa has an important nutritional value – the seeds are rich in essential amino acids and vitamins. Due to its adaptability to harsh environments including poor saline soils with annual rainfall as little as 200 mm, quinoa could play a major role as an alternative staple crop in marginal environments.

Realizing this potential, the United Nations General Assembly declared the year 2013 the “International Year of Quinoa”. The Food and Agriculture Organization (FAO) of the United Nations, specifically served as the Secretariat of the International Year of Quinoa. Since then, FAO has conducted activities around the world and particularly in the Near East and North Africa (NENA) region. In the NENA, FAO has implemented a project in eight countries with positive outcomes that have indeed shown quinoa as a potential alternative and profitable crop for the region.

Recognizing quinoa’s potential for marginal environments, ICBA has been leading a global quinoa program since 2007 in collaboration with national, regional and international research, government and donor organizations in the NENA region as well as Central Asia.

Despite the growing global recognition of quinoa’s potential, and positive research outcomes in pilot studies, there are still many constraints and issues to be addressed before quinoa

becomes a crop of choice in marginal areas where other major crops have so far been dominant but are now failing due to climate change and degradation in the quality of soil and water resources.

Key challenges are:

- Limited availability of genetic material for cultivation outside its indigenous environment
- Limited knowledge of the best management practices – especially nutrient and water requirements, pest and disease control, harvesting and processing under marginal growing conditions
- Little awareness about quinoa’s nutritional benefits and the intricacy to incorporate it into local diets in regions outside the Andes
- Lack of suitable marketing channels where the farming communities could sell their produce

Recognizing the need to better understand and resolve these challenges and to fully exploit the potential of quinoa, ICBA and FAO are organizing the International Conference: Quinoa for Future Food and Nutrition Security in Marginal Environments on December 6-8, 2016.

This conference will provide a unique platform for discussions on ecological, economic and social aspects related to introducing quinoa for sustainable agricultural production in marginal environments.

The conference will:

- Bring together leading scientists, practitioners and decision-makers from the public and private sectors in a mix conducive to innovation and technology transfer
- Explore opportunities for collaboration between the public and private sectors
- Showcase the latest developments in quinoa research, production and trade around the world
- Highlight quinoa uses and niche market opportunities
- Connect young professionals to experienced professionals

**Venue:** The conference will be held at Zayed University, Dubai, UAE

# Themes and Priorities

We encourage all quinoa scientists, research students, and private sector institutions to join the conference and submit their papers for the International Conference: Quinoa for Future Food and Nutrition Security in Marginal Environments. The conference organized jointly by ICBA and FAO welcomes different types of papers within the themes and sub-themes mentioned below, ranging from research (both fundamental and applied) to technology development and innovations.

If you feel your paper contributes to the objectives of the conference, but does not fit in one of the sub-themes mentioned below, please contact us. Within the overarching objectives, the conference focuses on the following sub-themes:

## 1 Global Status of Quinoa - Past, Present and Future

Analyzing the past and present trends, the objective is to look at future scenarios for quinoa.

The sub-themes are:

- Dynamic aspects of biodiversity management of quinoa, including the genetic diversity of quinoa and the status of its utilization
- Adaptability of quinoa to adverse climatic and soil conditions

## 2 Challenges and Opportunities in Scaling up Quinoa Production

Originally grown in the Andes region, quinoa has traveled far beyond and is now grown in many countries around the world. However, cultivation is still on a limited scale and at the subsistence level, and widespread adoption/scaling up requires appropriate/enabling technologies.

The sub-themes are:

- Best agricultural practices for quinoa production with special reference to marginal areas
- Sustainable seed production systems suited to different agro-climatic conditions
- Pests and diseases in the newly introduced environments and their control
- Pre- and post-harvest techniques for seed quality management

## 3 Quinoa Markets and Food Safety

Over the years, a significant increase in demand

for quinoa on the international market has led to an increase in quinoa production and agribusiness development opportunities for the producers. However, more people and entrepreneurs can benefit from the growing global demand for quinoa. Therefore, it is necessary to define steps for systematic integration of value chains that benefit both producers and consumers. Special emphasis should be placed on strengthening seed processing, packaging techniques, as well as marketing.

The sub-themes are:

- Value chain development
- Linking farmers, quinoa growers and grower associations to markets
- Technologically innovative/alternative uses of quinoa

## 4 Quinoa and Nutrition Security

Rich in essential protein with balanced amino acid content and gluten free, quinoa is an alternative for populations who rarely get or do not get animal protein and those with special dietary needs. It also has a high percentage of total dietary fiber (TDF), which makes it an ideal food for helping to eliminate toxins and waste products that can damage the body.

The sub-themes are:

- Nutritional quality of quinoa seeds under marginal growing conditions
- Nutrient-rich food products from quinoa
- Role of quinoa in human nutrition and health

## 5 Quinoa Partnership and Extension

Lack of knowledge and capacity hinders widespread adoption among farmers and agribusinesses. It is important to establish a system for knowledge and technology transfer to potential quinoa growers. Policies are also needed to motivate farmers to grow quinoa. A stakeholder-driven approach is needed to answer the knowledge gaps. It is necessary to engage key players in crop production, value-chain technology development, and policy-making.

The sub-themes are:

- Developing expertise and capacity of local partners across the entire value chain in order to promote quinoa production in marginal environment
- Enabling policies and legal frameworks to support quinoa production, marketing and agro-industry in newly introduced countries

# 6 Way Forward - Global Challenges and Opportunities

The conference will help to identify knowledge and action gaps, share lessons on viable instruments, institutions, policies, and approaches through a strong communication effort, networks, and contribute to consensus on priorities for appropriate investment and action by different stakeholders. The conference will produce a number of outputs, including research papers and policy briefs.

The sub-theme is:

- Future strategies and actions to boost quinoa production in marginal environments



## EXPERTS AND RESEARCHERS ARE INVITED TO SUBMIT THEIR ABSTRACTS

### Important dates:

- **April 1, 2016:** Call for abstracts (not exceeding 300 words) for oral and poster presentations opens
- **June 15, 2016:** Abstract submission closes
- **August 15, 2016:** Authors are notified of acceptance
- **September 15, 2016:** Draft program is published
- **October 30, 2016:** Submission of full papers closes
- **November 15, 2016:** Final program is published

### Publication:

For more information about the procedures and guidelines, please visit:

[www.quinoaconference.com](http://www.quinoaconference.com)

#### Please send your abstracts to:

Dr. Redouane Choukr-Allah  
[papers@quinoaconference.com](mailto:papers@quinoaconference.com)

- Accepted abstracts will be included in the Conference Abstract Book
- Accepted papers (handled by the conference scientific editorial board) will be included in the Conference Proceedings
- Excellent papers (~10) will be selected by conference editors and published as a special issue of a worldwide recognized journal

# Structure of the Conference

The conference program will start with a plenary session on an emerging research topic, followed by technical sessions. Each technical session will include at least one keynote address from renowned experts in the respective field.

A field trip will be organized on the last day of the conference to showcase current research on quinoa at ICBA.

## Keynote Speakers

**Dr. Sven-Erik Jacobson**, Section for Crop Sciences, Højbakkegårds Allé 13, 2630 Taastrup  
*The worldwide potential of quinoa as a new climate-proof crop*

**Dr. Bazile Didier**, CIRAD Visiting Expert at FAO-HQ, Rome, Italy  
*Experimentation and collaboration on quinoa around the world*

**Dr. Daniel Bertero**, Cátedra de Produccion Vegetal, Facultad de Agronomia, Universidad de Buenos Aires, Argentina  
*Quinoa research and development for low land environments in South America*

**Dr. Dost Muhammad**, Regional Plant Production Officer, FAO-RNE, Cairo, Egypt  
*Promotion and evaluation of quinoa in the NENA region*

**Dr. Luz Rayda Gomez Pando**, Principal Professor and Head of the Cereals and Native Grains Research Program, Universidad Nacional Agraria La Molina (UNALM), Peru  
*Quinoa Research and Development in the Andean Countries*

**Dr. Eric N. Jellen**, Professor of Plant Genetics, Associate Dean, College of Life Sciences, Brigham Young University, Utah, USA  
*The quinoa genetics program at Brigham Young University, USA*

**Dr. Hans-Warner Koyro**, Professor of Ecology and Botany, Justus-Liebig University Giessen, Institute of Plant Ecology, Germany  
*Quinoa Nutritional values*

## Organizing Committee

The Organizing Committee includes leading experts and researchers from ICBA and FAO and other partner organizations.

### ICBA

Ms. Setta Tutundjian  
Dr. Redouane Choukr-Allah  
Dr. N.K. Rao  
Dr. Abdullah Al-Dakheel  
Mr. Abdumutalib Begmuratov  
Mr. Ghazi J. Al-Jabri  
Dr. Abdelaziz Hirich  
Ms. Vaishali Dassani

### FAO

Dr. Pasquale Steduto  
Dr. Dost Muhammad  
Dr. Alfredo Impiglia

### Scientific Committee

Dr. Redouane Choukr-Allah, UAE  
Dr. Rick Jellen, USA  
Dr. Jeff Maughan, USA  
Dr. Sven-Erik Jacobson, Denmark  
Dr. Mark Tester, KSA  
Dr. Luz Rayda Gomez Pando, Peru  
Dr. Magali García, Bolivia  
Dr. Bazile Didier, Italy  
Dr. Daniel Bertero, Argentina  
Dr. Dost Muhammad, Egypt  
Dr. N.K. Rao, UAE  
Dr. Ouafae Benlhabib, Morocco

## Registration Fees

Categories	Early registration before August 31, 2016	Registration after August 31, 2016
Scientist, Academic, Commercial, Professional	US\$150	US\$200
Student (M.Sc., Ph.D.)	US\$50	US\$50

## ABOUT ICBA

**International Center for Biosaline Agriculture - ICBA** is an international, non-profit organization that aims to strengthen agricultural productivity in marginal and saline environments through identifying, testing and facilitating access to sustainable solutions for food, nutrition and income security. ICBA's work reaches many countries around the world, including the Gulf Cooperation Council countries, the Middle East and North Africa, Central Asia and the Caucasus, South and South East Asia, and Sub-Saharan Africa.

## ABOUT FAO

**The Food and Agriculture Organization of the United Nations (FAO)** leads international efforts to defeat hunger. Headquartered in Rome, Italy and operating in over 130 countries, it provides development assistance aimed at strengthening agriculture, forestry and fisheries, improving nutrition, and reducing poverty. FAO focuses special attention on developing rural areas, home to 70 percent of the world's poor and hungry.

