



# Organic Farming Innovation Award 2014

at the

**18<sup>th</sup> IFOAM Organic World Congress**

13-15 October 2014, ICC, Istanbul, Turkey





## FOREWORD

The latest developments in organic farming and consumption show dynamic market growth, however the uptake of organic agriculture by farmers is fairly slow. In recent years, global market growth has been over 5%, while the agriculture area either stayed the same or even decreased. Bottlenecks in the uptake of organic farming are often due to production problems or the fact that farmers are not always convinced that organic methods can solve farming problems, such as fertilization, plant protection, animal health, efficient use of workforce, marketing diversity etc. Although these problems can sometimes be solved through learning existing and regionally practiced methods, innovations are imperative to making organic farming a competitive and viable alternative farming system. Innovations play a crucial role in the local adaptation of sustainable and regenerative ways of farming and also in bringing the benefits of organic farming and organic produce to a wider audience.

Since the 17<sup>th</sup> Organic World Congress held in 2011 in South Korea, IFOAM and RDA honor innovations in Organic Agriculture sector every three years with a Grand Prize and a Science Prize. Highlighting the need for innovations and highlighting the impact of outstanding innovations and to learn from them is the purpose of this small, but strategically important and far-reaching event. It should help to increase awareness and appreciation of small but impactful innovations. An increased awareness inside and outside the organic community and a higher societal status of innovators inspire researchers and hence shape the research agenda towards more innovations for the benefit of present and future organic farmers.



Markus Arbenz  
*IFOAM Executive Director*

## WHAT IS OFIA?

**The Organic Farming Innovation Award (OFIA)** is the prize of the Organic Movement to highlight organic innovations of scientists, extension agents and practitioners.

OFIA is an initiative of the government of South Korea in remembrance of the Organic World Congress (OWC) 2011 held in its Gyeonggi Province. The OFIA committee gives a signal for the research and extension community worldwide and emphasizes the need for innovation for the development of organic agriculture worldwide.

Once every three years, at the OWC, the International Federation of Organic Agriculture Movements (IFOAM) and the Rural Development Association (RDA) award great organic innovations and their discoverers to boost their uptake and to motivate other stakeholders to push innovation forward for the benefit of organic farming.

### OFIA GRAND PRIZE

The OFIA Grand Prize (10,000 US\$) is the practitioners' prize for innovators of applications for organic farming. Prize holders can be scientists, extension agents, farmers or other innovators.

### OFIA SCIENCE PRIZE

The OFIA Science Prize (5000 US\$) is the prize for scientists, who discover promising applications for organic farming, processing and marketing.



## Organic Farming Innovation Award

### WHO IS BEHIND OFIA?



**The Rural Development Administration (RDA)** is the central government organization responsible for extensive agricultural research and services in South Korea.

RDA's efforts are directed towards highly competitive agriculture and efficient rural development. It endeavors to support farmers to produce agricultural commodities with better quality, advancing low-input, labor-saving and environment-friendly cropping technologies, promoting modern and automated production facilities, and nurturing future farmers.

Website: [www.rda.go.kr](http://www.rda.go.kr)



**The International Federation of Organic Agriculture Movements (IFOAM)** is the worldwide umbrella organization of the organic agriculture movement, uniting close to 800 member organizations in 110 countries.

IFOAM's mission is leading, uniting and assisting the organic movement in its full diversity. The organization's goal is the worldwide adoption of ecologically, socially and economically sound systems that are based on the principles of Organic Agriculture.

Website: [www.ifoam.org](http://www.ifoam.org)

### OFIA 2014 CEREMONY - PROGRAM

**Venue:** Terrace of the Istanbul Conference Center (ICC), Istanbul, Turkey

**Date:** 14.10.2014 at 7.30 pm

- Brief interview on OFIA with Markus Arbenz, IFOAM Executive Director & Dr. Lee Sang Beom, the RDA-IFOAM OFIA Coordinator
- Grand Prize laudation of Dr. Kim Seok Cheol, Vice President, RDA, South Korea. Handing over the award and statuette to the Bio Suisse team
- Science Prize laudation of Andre Leu, IFOAM president. Handing over the award and statuette to Stephen Ng'ang'a Wainaina

## GRAND PRIZE WINNER: BIO SUISSE



**Bio Suisse** - Association of the Swiss Organic Agriculture Organizations, Peter Merian-Str. 34, CH 4052 Basel, Switzerland, [www.bio-suisse.ch](http://www.bio-suisse.ch)

**Contact Person:** Jörg Schumacher, [joerg.schumacher@bio-suisse.ch](mailto:joerg.schumacher@bio-suisse.ch)  
He is the Fair and Social Standards Officer at Bio Suisse.

### About Bio Suisse:

Bio Suisse is the leading organic agriculture organization in Switzerland and owner of the “bud” label. The umbrella organization was founded in 1981, and represents its 5700 bud farmers and gardeners. In addition there are 800 processing and trade licensees of the bud. All of them are inspected and certified based on the demanding Bio Suisse standard. Bud products guarantee a high production standard and stand for taste and enjoyment.

Bio Suisse is a member of IFOAM and its standard is part of the IFOAM Family of Standards.

## THE GRAND PRIZE INNOVATION: BIO SUISSE FAIR TRADE RELATIONS

With the fairness project, initiated in 2010, Bio Suisse is supporting respectful trade and the satisfaction of the bud (the Bio Suisse label, here referring to the members and license takers) trading partners along the whole value chain. Organic farmers, processors of organic food and traders exchange in meetings about their concerns regarding fairness and trade. The basic requirements regarding the fair relationships are included in the Bio Suisse standard. Within Switzerland, the project includes:

- A **code of conduct** in trade with bud products
- **Round table discussions** with stakeholders
- An **ombudsman** for fair trade relationship
- A **fairness survey** to assess fairness and satisfaction

With this project, Bio Suisse is a pioneer of a fairness approach that is not based on inspection and certification, but on a comprehensive long term dialog and on care of good relationship among the partners along the whole value chain. This differs

from the classical fair trade approach that defines minimum prices and premium. Imports also have social requirements, that are further developed with a concept for responsible trade practices.

The **code of conduct** was developed based on several discussion events regarding fairness principles for the Swiss value chain. The participants came from farming, processing and retail, as well from consumer protection sectors. The code of conduct lays down the fairness guidelines for the Swiss market.

The **stakeholder round table discussions** have been taking place since 2011 in the milk and cereal markets. In discussion rounds, it was suggested to show good practice examples in which fair trade relationships become visible. Based on those results a film about fair trade was made in cooperation with FiBL. Similar discussion rounds are also established in the fruit, vegetable and egg markets, and an interest created in the meat market. Those round tables have become an appreciated instrument with positive feedback from the stakeholders.



**Ombudsman:** Starting from April 2014, it is possible for every farmer to ask for support and recommendations from the especially assigned, neutral ombudsman for fair trade relations. Market participants can also file a formal complaint. The ombudsman researches the cases from all perspectives, and can make a recommendation or hold a mediation. He doesn't have decision power, but creates transparency and publicity. The recommendations contribute that the principles of the code of conduct are made visible with concrete examples. A term of the ombudsman is for 2 years.

**Fairness survey:** The results of the first fairness survey (in cooperation with the University of Kassel, Germany) show that majority of farmers (64%) and traders (65%) with the bud label are generally satisfied with their trade relations. However, one out of five farmers and one out of four processors/traders are not satisfied with the trade relations. The survey also showed that the code of conduct represents very well the expectations of the market actors of what they feel is fair.

This project is a social innovation for organic associations in countries with a well-developed organic market. It is an opportunity for participatory further development with many actors, and for positioning the association as a credible service provider for the members. In times of increasing competition through new actors in the

markets and imports, the trustful collaboration and transparency in the value chain is getting increasingly important for the credibility and integrity of Organic Agriculture. The investments for the introduction of such a concept is high, but on mid to long term, there are various benefits such as the good reputation, satisfied members and market partners.

#### Further information and links:

- Schumacher J. 2014: Fairness in the organic food chain – practical experiences from Bio Suisse. Presentation accepted at the practitioners' track at the Organic World Congress in Istanbul: [http://www.bio-suisse.ch/media/Konsumenten/Nachhaltigkeit/Fair/schumacher\\_fairness\\_owc14\\_-\\_practitioners\\_track.pdf](http://www.bio-suisse.ch/media/Konsumenten/Nachhaltigkeit/Fair/schumacher_fairness_owc14_-_practitioners_track.pdf)
- Richtlinie faire Handelsbeziehungen: [http://www.bio-suisse.ch/media/de/pdf2014/Regelwerk/rl\\_2014\\_d\\_teil\\_i.pdf](http://www.bio-suisse.ch/media/de/pdf2014/Regelwerk/rl_2014_d_teil_i.pdf)
- Erste Ergebnisse der Umfrage der Produzenten und Abnehmerbefragung: [www.bio-suisse.ch/media/Konsumenten/Nachhaltigkeit/Fair/fairness-umfrage-erste-ergebnisse\\_web.pdf](http://www.bio-suisse.ch/media/Konsumenten/Nachhaltigkeit/Fair/fairness-umfrage-erste-ergebnisse_web.pdf)
- Infofilm faire Handelsbeziehungen: [https://www.youtube.com/watch?feature=player\\_embedded&v=Nnpf83HrNn0](https://www.youtube.com/watch?feature=player_embedded&v=Nnpf83HrNn0)

## INTERVIEW WITH JÖRG SCHUMACHER



**OFIA:** What are the origins and the rationale of the Bio Suisse concept for fairness in regional value chains?

**Schumacher:** The project came out of a larger discussion within the association amongst the farmers when they formulated a vision paper, and one of the points therein was fairness for

every one, including the local farmers in Switzerland. The farmers said even if they live in a rich country, fairness in the supply chain ought to be discussed and practiced all the way from farmer to consumer. Bio Suisse decided that it wanted to achieve this through unconventional approaches, and not through mechanisms like sanctions and penalties, as in the certification sector.

The Bio Suisse fairness project was formally started in 2010. I did my master thesis on this topic, and after

that I continued to work at Bio Suisse on fairness in regional value chains.

In the milk sector, round table discussions were launched already in 2009. Those discussions by the market partners were lead parallel to the development of a fairness strategy that finally got formalized through my thesis and General Assembly decisions. We have now an ombudsman addressing complaints and facilitating dialogues along the value chain.

Getting better prices for producers is the main motivation for the producers. Even though farmers also care about transparency and reliability, pricing is still an area of concern for them, as revealed again by the fairness survey, which we just completed.

**OFIA:** Were there hurdles in realizing the project, and how were they overcome?

**Schumacher:** The challenge was to motivate and convince people that we needed an alternative way to certification and sanctioning for non-conformity. We invited people from processing companies, retailers for round table discussions in order to show them the

advantage or benefit of joining the project, which is not easy. Awareness that fairness helps all needed to be created.

**OFIA:** How is the project financed?

**Schumacher:** The fairness project is part of the regular Bio Suisse budget. The market partners have some advantages if they participate like for example the market data of the milk sector which help build up market intelligence, transparency etc. It was a strategic decision of our board to invest in and develop the fairness strategy.

**OFIA:** How about fair trade for imports?

**Schumacher:** Last year, it was decided that the responsible trade practices for imported products should also be encouraged. The Swiss importers get their goods from around 60 countries and we will have to adapt the concept. Bio Suisse has developed a code of conduct for responsible trade practices abroad specifically to address the Swiss importing companies. This is the first step of sensitization of importers.

Switzerland gets the bulk of fruits, vegetables and olives from Spain and Italy, and we have to consider these countries within Europe as well as the traditional fair trade countries producing coffee and cocoa. We will have to differentiate the approaches. For instance we will use complaint mechanisms, but not the round

table discussions and the ombudsman so far works for domestic trade only. We are still developing.

**OFIA:** What is the stakeholder's response to the project?

**Schumacher:** We do not use an own label for fair trade, but we have published some articles and mentioned the project in the annual press conference and report. The ombudsman was involved in two cases so far. One could not be solved, the other one is still ongoing. The project is a long term mechanism to help strengthen the credibility and authenticity of the Bio Suisse brand.

**OFIA:** What are the plans ahead for the fair trade project?

**Schumacher:** The project is in a pilot test phase till 2016. Then our assembly of delegates will decide on the future of the fairness project. We have now in place a directive, a fair trade standard, the code of conduct, the round table discussion, the ombudsman and the survey. We are still in an experimental phase, and every five years we will have a review.

The round table discussions have proven to be useful by now, and we would like to carry on with it. The ombudsman we have to wait and see the developments. The survey shows how satisfied the stakeholders are with the developments. It would be useful to have it every three years to assess the stakeholder satisfaction.



## SCIENCE PRIZE WINNER: STEPHEN N. WAINAINA

**About Stephen Ng'ang'a Wainaina:** He is the Executive Director of Organic Agriculture Centre Of Kenya (OACK). He holds a Post Graduate Diploma in Horticulture from University of Greenwich England, and has attended an Advanced Agriculture Course at Murrumbidgee College of Agriculture, New South Wales, Australia.

**Contact:** OACK, P.O Box 169-10218, Kangari, Kenya. [www.oack.or.ke](http://www.oack.or.ke), [stephenoack@gmail.com](mailto:stephenoack@gmail.com)

## THE SCIENCE PRIZE INNOVATION: USING WEEDS TO TURN CROPS DROUGHT AND DISEASE RESISTANT



**Organic Agriculture Centre of Kenya** (OACK-Kenya) is a non profit National NGO registered as a registered charitable organization in Kenya since 2006. Our mission is to promote sustainable agriculture for development of the vulnerable small-scale farmers. We achieve this through education, training and work with disadvantaged small scale farming communities on sustainable organic agriculture in Kenya — especially in the Eastern Aberdare Agro Ecosystem. We want to ensure that small-scale farmers can fulfill their rights to a quality sustainable farming education and practice, regardless of their circumstances or gender.

Growing innovatively improved fruits offer tremendous opportunities for food and generating income among the vulnerable grower families in Kenya, and elsewhere in Africa. It also improves nutrition and diet of the poor who currently suffer from deficiencies of vitamins, minerals, micro-nutrients and antioxidants as a consequence of low consumption of these foods.

Tree tomato is an important source of vitamin A and C that are lacking in many African diets.

Low intake of vitamins by around 50 million African children are (Anne Mbora, Ramni Jamnadas and Jens-Peter Barnekov Lillesø) at risk of deficiency and this is considered to be third greatest public health problem after HIV/AIDS and Malaria.

Vitamin C is essential for protecting cells, keeping the body healthy and for absorption of iron from food. Tree tomato has this vitamin in significant quantities.

Improved availability and fruit quality of tree tomato fetched farmers better prices for the fruit (\$ 0.23 to \$1.16/kilogram) in Nairobi and markets elsewhere in Kenya.

### Innovative Method

The method involves vegetative propagation. Tree tomato (*Solanum betaceum*) scion is wedge-grafted on to its wild relative, the bugweed (*Solanum mauritanum*) rootstock. They both belong to Solanaceae family, hence grafting these two plants is compatible. The scion (terminal bud stick) is taken from Tree tomato and the rootstock is bugweed. The scion is inserted into a wedge shaped cut on top of the rootstock.

Bugweed has been for a long time regarded as uneconomic weed, to be eliminated. It is even included in the Global Invasive Database (GIS D. 2006) because it serves no economic purpose and is regarded to pose characteristics harmful to humans and environment. Bugweed is resistant to diseases and drought. It shows a healthy growth in the wild, where it is found very green throughout the year.

Tree tomato being shallow rooted, profits from the deep tap root and the many strong auxiliary roots of bugweed. Grafting these two plants improves the stem and root system, as the grafted fruit plant has a stronger anchoring. Long term resistance to fruit diseases, pests and drought are other gains.

The grafted plants bear improved fruits, can be used for own consumption, or sold to earn extra money,

and thus improve producer and consumer livelihoods. It also provides fodder for livestock.

### Application and extension potential for the innovation

The innovation is attractive for application in both highlands and lowlands. There is a high demand among producers for grafted tree tomato seedlings. As the quality fruits are attracting higher prices, there is a rising need to extend production.

If farmers receive good quality grafted plants, and if consumers are informed about benefits of eating the fruits, a strong and sustainable domestic tree tomato fruit production can develop in Kenya and neighbouring countries.

Cultivating tree tomato in Kangari and other parts of Kenya by smallholder farmers to feed local and export markets has potentials to inspire more innovations and help improve livelihoods. The fruit is popular in Kenya

for fruit consumption and for making fresh juices.

Improved tree tomato has further potentials to ensure food security and generate income. It also has the potential to fight vitamin A & C deficiency in Africa.

### Further information and links:

- Anne Mbori; Ramai Jamnadass & Jens-Peter Barnekov Lillesø, 2008: Growing High Priority Fruits in Kenya: <http://www.worldagroforestry.org/downloads/publications/PDFs/B15956.PDF>
- George D. Pamplona-Roger, 2008: Healthy Foods (Spanish)
- Making money from tree-tomato: The Organic Farmer, No. 104, January 2008: <http://www.infonet-biovision.org/res/res/files/4307.TOF%20January%202014red.pdf>
- Global Invasive Database (GIS D. 2006)

## INTERVIEW WITH STEPHEN N. WAINAINA



**OFIA:** What are the origins of this innovation?

**Wainaina:** It came about in 1982 when I was studying in Murrumbidgee College of Agriculture, Australia, where I found the Bugweed growing among other weeds, and in 1983 when I found the same Bugweed growing on my

land in Kenya. At that time, I was growing ungrafted tree tomatoes on my land, which were drying during hot season due to drought and shallow rooting.

**OFIA:** How has the innovation been taken up?

**Wainaina:** The innovation take up from target stakeholders is gradual, with approximately 25-50 farmers taking up training.

**OFIA:** What are the future plans for the innovation?

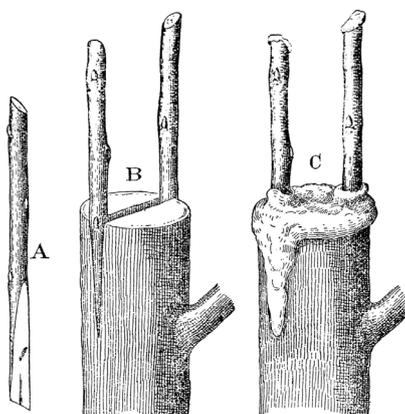
**Wainaina:** In order to further develop and spread the innovation, classroom facilities for long term training of target groups need to be constructed. We also plan to provide a library facility for access to organic publications and thus to boost community-based ecological innovations. In addition, I want to start a not-for profit organization to be named “Ecological Organic Farming Innovation Initiatives” (EOFI).

**OFIA:** Your message to those who aspire to innovate?

**Wainaina:** There should be the will, desire, inspiration, creativity and commitment in order to seek ideas, think innovatively and to effectively implement the ideas. Young people can seek new innovative ideas from those who are already implementing own innovations and learn under their mentorship.

Showcasing innovative farming and related education are the best ways to ensure that young generations get interested in ecological farming. Such education should be holistic, experiential, and locally initiated.





*Pictures left to right:*

Tree tomato scion source

Bugweed rootstock source

Steps in wedge or cleft grafting

A successful graft

Stephen Wainaina training a farmer

Fruits of the grafted tree tomato

## OFIA SELECTION CRITERIA

- **Innovativeness:** How innovative is the idea presented?
- **Applicability:** Can the idea be well applied in organic farming (or processing, trade and sector development depending on the concept)?
- **Relevance:** Can the innovation solve real problems or explore potentials?
- **Impact potential:** Has the innovation the potential to have a great impact?

## THE OFIA COMMITTEE

**Dr. Seung Yong Ra**, Vice President, Rural Development Administration (RDA)

**Prof. Chang Khil Song**, Jeju National University, Jeju, South Korea

**Andre Leu**, IFOAM President

**Markus Arbenz**, IFOAM Executive Director

**Prof. Dr. Uygun Aksoy**, Scientific Chair of the Organic World Congress 2014 and Professor at the Faculty of Agriculture, Department of Horticulture, Ege University, Turkey.

**Dr. Shaikh Tanveer Hossain**, Sustainable Agriculture Advisor & Chief Agricultural Coordinator at Friends In Village Development Bangladesh (FIVDB), Bangladesh. Winner of the OFIA Grand Prize 2011.

**Dr. Min Ho Lee**, Agricultural Researcher at the Organic Agriculture Division of the National Academy of Agricultural Sciences (NAAS), RDA.

## OFIA APPLICATION

OFIA organises Innovation Summits in 2015 and 2016, which will be announced at <http://www.ifoam.org/events/calendar.php>

In 2016, IFOAM publishes a call for applications for the OFIA 2017. The deadline is 1 March, 2017.

## OFIA WORKSHOP

An OFIA Workshop to present the winners 2014 will take place on 15 October 2014 from 11:30-13:00 in B-10 in Hall: Yıldız-1 of the Istanbul Conference Center (ICC).



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Innovation Award