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Cultivating the Future Based on Science

Volume 2
Livestock, Socio-economy and Cross disciplinary Research in Organic Agriculture

Proceedings of the Second Scientific Conference of the International Society of Organic Agriculture Research (ISOFAR), held at the 16th IFOAM Organic World Congress in Cooperation with the International Federation of Organic Agriculture Movements (IFOAM) and the Consorzio ModenaBio, 18 – 20 June 2008 in Modena, Italy

Should the publication of corrigenda become necessary, these will be posted at the conference homepage http://www.isofar.org/Modena2008/

The 2nd Scientific Conference of the International Society of Organic Agriculture Research (ISOFAR) was held June 18-20, 2008 in Modena Italy, in the frame of the 16th Organic World Congress of the International Federation of Organic Agriculture Movements (IFOAM), organised by Consorzio ModenaBio. The 4th Congress of the European Integrated Project 'Quality Low Input Food' (QLIF) was convened as part of the 2nd ISOFAR Conference (see papers in volume 2 of these proceedings).

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Preface

To carry home these heavy two volumes of ISOFAR's 2nd Scientific Conference Proceedings might give rise to the question whether these books represent more mass than class and if they are still topical.

After all the author must wonder whether a contribution in a peer-reviewed proceedings volume is worthwhile when there is the alternative of publishing it in a highly ranked scientific journal with the same effort. Moreover, the editors as well as the numerous referees might have felt desperate at times due to the enormous amount of time and strength they invested to compile about 400 selected papers.

I would like to thank all of you for your effort. It was worthwhile since the reader now obtains a valuable overview of the current state of knowledge and research aims of the scientifically based Organic Agriculture which might be important not only for the scientist but also for all other stakeholders interested in the further development of Organic Agriculture.

I owe gratitude to all who contributed to coping with this laborious task. You have all done a tremendous job in contributing to foreseen successful scientific modules held under ISOFAR´s and IFOAM's joined conference/congress umbrella. Our collective hope is that these proceedings will represent a significant milestone on the road towards a better understanding of the potentials and effects capabilities of a scientifically based Organic Agriculture can have.

Prof Dr Ulrich Köpke

President ISOFAR

Dear Reader,

The two volumes of the Proceedings of the Second Scientific Conference of the International Society of Organic Agriculture Research, 'Cultivating the Future Based on Science', represent a considerable part of the worldwide increase in research activities in Organic Agriculture (OA). This observation is in accordance with the overall trend, at least in much of the western world, of increased production and consumption of certified organic products.

In all, 495 four-page papers were submitted to the conference, and all went through a sophisticated review process resulting in 380 papers being selected for presentation at the ISOFAR Conference. Evaluating papers is a difficult task, requiring a sure scientific instinct. It also requires a reasonable judgement of the quality of the language of each paper; since a paper's language is part of what determines its overall quality, even though this gives an unjustified advantage to native speakers of English. Supported by a review form that checked various aspects of the paper's quality, the reviewers tried their best to ensure maximum transparency of the evaluation, which basically reflected the objective of improving the paper's quality.

The first volume deals mainly with various aspects of organic crop production, which traditionally represent the largest share of all papers submitted to conferences on OA. We hope that you will find it interesting to discover the diverse research approaches regarding the management of organic crops. While a tendency to a more problem-oriented approach realized by specialists is evident, as perhaps is to be expected, there is still a strong foundation of papers on traditional agronomy with a systemic approach, which remains a key discipline in OA research. Attentive readers will realize that the diversity of papers also reflects the global differences with respect to an understanding of what OA is.

This second volume gives insights into the increasing research activities on animal husbandry, socio-economics, interdisciplinary research projects, and QLIF workshops, all related to OA. We gratefully acknowledge in particular the increasing interest in organic animal husbandry, which in the past was a poor cousin in OA research. Some topical issues such as global warming and energy supply are discussed in the interdisciplinary sessions.

The scientific committee agreed at the start that cross-disciplinary papers should be given high priority because of the very nature of organic farming and food systems. For many years we have claimed there was a need for a holistic understanding of OA, both because of the interdependencies among sub-systems on the farm (soil-crops-livestock-people) and because of the multiple objectives behind OA (producing wholesome food, conserving soil fertility, maintaining biodiversity, supporting animal welfare, reducing pollution, etc.). However, most often researchers end up meeting and discussing these matters in largely discipline-oriented sessions, even at most organic conferences. Therefore, we wanted to encourage a more cross-disciplinary approach at this ISOFAR event, and we were happy to receive a large number of papers for the cross-disciplinary topics. We hope this tendency will be strengthened in future organic conferences.

Moreover, the great number of papers submitted for the scientific part of the OWC clearly demonstrates the interest in sharing research-based knowledge within the organic sector. To achieve this, it was important to have a section of the OWC where strict methodological approaches are required for participation.

On the other hand, it is a pleasure and an advantage for a scientific conference to be part of a global event that attracts the whole sector and thus allows the researchers to disseminate their findings widely and gain inspiration from other stakeholders in the organic movement.

First and foremost many thanks to all authors who contributed to our joint conference. We also are greatly indebted to the numerous reviewers listed on the next page, who did a first-class job in evaluating hundreds of papers. It was a great pleasure to cooperate with Paola Bonfreschi from the OWC – Organizing Committee, who is the embodiment of reliability and politeness. Last but not least, many thanks to Anja Schneider, of the ISOFAR Head Office, who was mainly in charge of overall communication with the authors and substantially supported the editing of the proceedings.

Managing the review process and editing the proceedings for an international conference is a challenging task in which language difficulties and technical problems may sometimes result in confusion. We kindly ask you to accept our apologies for any problems you may encounter.

We sincerely hope that the Proceedings of the Second Scientific Conference of ISOFAR 'Cultivating the Future Based on Science' will be an important and worthwhile source of information and inspiration for you.

On behalf of the Editors,

Daniel Neuhoff, Niels Halberg, Thomas Alföldi & William Lockeretz

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