

Cassava Flour and Starch:

Progress in Research and Development

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Centre
de coopération
internationale
en recherche
agronomique
pour le
développement
Département
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International Center for Tropical Agriculture

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FOREWORD

The 1994 International Meeting on Cassava Flour and Starch, held in Cali, Colombia, focused on cassava products and their use and potential development. More than 130 scientists, representing 29 countries, participated, presenting 45 papers and 80 posters, of which 41 papers are published in these proceedings.

The Meeting was co-chaired by CIRAD/SAR and CIAT, and was made possible by the sponsorship of the EU, IDRC, MAE, NRI, ORSTOM, UBA, UNESP, and UNIVALLE.

Lodging and facilities were provided by CIAT, and we thank Dr. W. Scowcroft, Director General of Research, and CIAT employees whose efficient help was invaluable to our presentations.

We also thank Dominique Dufour, of CIRAD/SAR and stationed at CIAT,

who supervised the scientific preparation of the sessions, and whose dynamism was instrumental for the overall organization of the event. Also much appreciated was the smoothly efficient logistical support provided by Mrs. María Eugenia Cobo.

Not only the efficient organization, but also the number of participants, their diversity, the quality of their presentations, and their willing participation, contributed to the value of the discussions, making this Meeting a significant scientific event.

CIRAD/SAR and CIAT, as co-publishers of these proceedings, were assisted by CIAT's Communications Unit. Despite careful editing and production, errors may remain, for which we take full responsibility.

The organizers

PREFACE

Until recently, most efforts in tropical agriculture were focused on increasing cereal productivity, thus neglecting root and tuber crops such as cassava, long considered as a “primitive crop,” as “food for the poor,” and as having “poor nutritional value.” Cassava was rarely included in R&D programs for tropical agriculture.

But, with population increase and rapid urbanization in developing countries, cassava has become more important as a source of food security and dietary calories for the inhabitants of these countries. The unusual climatic variations witnessed in recent years, along with the prospect of global warming, highlight further advantages of this hardy, drought-resistant crop. Policy makers have therefore become more aware of the crop’s significance and are encouraging its research.

The root’s remarkable capacity to adapt to various agroecological conditions and its potential for high starch yields first oriented research toward increasing productivity through varietal improvement, new cultural practices, and crop protection.

Only since 1985—which is remarkable, considering this edible root was domesticated more than

5,000 years ago—have studies in food demand begun to emphasize the improvement of postharvest handling, processing, and marketing of cassava and its derived products. Biotechnology research and opportunities are now also taken into account in R&D programs on products, byproducts, and even the wastes produced by processing plants.

The 1994 International Meeting on Cassava Flour and Starch, organized in Cali, Colombia, demonstrated this burgeoning scientific interest in cassava processing and its role in the socioeconomic growth of developing countries. Producers, researchers, processors, and consumers of cassava products have never before met in such significant numbers to share their experiences, present their work and results, and exchange information. The technological development of cassava processing and conservation will surely improve as participants return to their work and apply their new knowledge.

The themes presented during the Meeting were:

- The existing and potential uses of cassava in the world.

- The physical and chemical composition and functional properties of cassava flours and starches.
- The possibilities of bioconversion of processed products and byproducts.
- Technological improvement of cottage and industrial processes.
- Development of new products.
- Integrated development of cassava products to supply market needs.

These themes set the scene for many stimulating discussions. The necessarily multidisciplinary scientific approach, together with the participatory research approach—both involving the various components of the cassava production, processing, and marketing system—emerged as a “recurrent pattern” for quality work.

Currently, these approaches form the only way to contribute significantly to the socioeconomic growth of developing countries.

The papers reported the most recent results of current research programs. They also pointed toward future research directions and suggested ways of translating results into socioeconomic benefits for all groups involved in cassava.

With the publication of these proceedings, both those who could and those who could not attend the Meeting will be able to reap from the wealth of knowledge presented in these papers, and so develop new methodologies and new products and technology for their production, and, most importantly, better guide the direction of thinking and planning for their communities' development.

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