



Tropentag, September 14-16, 2010, Zurich

“World Food System —
A Contribution from Europe”

Adding Value to Holy Grain: Providing the Key Tools for the Exploitation of Amaranth – The Protein-rich Grain of the Aztecs. Results from a Joint European - Latin American Research Project

INGE SINDBJERG FOMSGAARD¹, MARIA CRISTINA AÑÓN², ANA PAULINA BARBA DE LA ROSA,³
CARSTEN CHRISTOPHERSEN⁴, KAREL DUSEK⁵, JOHN DÉLANO-FRIER⁶, JAVIER ESPINOZA PÉREZ⁷,
AJAX FONSECA⁷, DAGMAR JANOVSKÁ⁵, PER KUDSK¹, RODRIGO S. LABOURIAU⁸, MARTHA
LORENA LACAYO ROMERO⁹, NORA MARTÍNEZ², KRISTINA MATUSOVÁ¹⁰, SOLVEJG K.
MATHIASSEN¹, ELKE JOHANA NOELLEMAYER¹¹, HANS A. PEDERSEN⁴, HELENA STAVELIKOVA⁵,
STINE KROGH STEFFENSEN⁴, ROSA M. DE TROIANI¹¹, ANDREU TABERNER¹²

¹*Aarhus University, Dept. of Integrated Pest Management, Denmark*

²*Centro de Investigación y Desarrollo en Criotecología de Alimentos, Argentina*

³*Institute of Scientific and Technological Research (IPICYT), Mexico*

⁴*University of Copenhagen, Denmark*

⁵*Crop Research Institute, Czech Republic*

⁶*Centro de Investigación y de Estudios Avanzados del I.P.N., Mexico*

⁷*Asociación Chinantlán, construyendo hermandad, Nicaragua*

⁸*Aarhus University, Dept. of Genetics and Biotechnology, Denmark*

⁹*Universidad Nacional Autónoma de Nicaragua, Nicaragua*

¹⁰*AMR AMARANTH a.s., Czech Republic*

¹¹*Universidad Nacional de La Pampa, Facultad de Agronomía, Argentina*

¹²*University of Lleida, Spain*

Abstract

The project AMARANTH:FUTURE-FOOD (www.amaranth-future-food.net) is a joint research project financed by the European Commission in the Specific International Cooperation Activities (INCO) of the 6th Framework Program. The project group consisted of 11 partners from Mexico, Nicaragua, Argentina, Czech Republic, Spain and Denmark. Amaranth is a protein-rich and gluten-free pseudo-cereal grain that was the basic food in South America and Mexico thousands of years ago. 60–70 *Amaranthus* species are known. The overall objective of the project was to provide the tools for an extensive and sustainable exploitation of amaranth. The project initiated on September 1st, 2006 and finalized on December 31st, 2009.

A number of scientific and popular papers with results from the project were published and more are on their way. A 75 pages Publishable Final Activity Report that summarises our results will be available in www.amarant-future-food.net in the near future. In this presentation selected results from our research into the industrial use of amaranth and the use of amaranth as food, feed and food additives will be presented together with our results from extensive cultivation trials on 18 different amaranth genotypes in five research sites with varying climate. Results from our studies on drought and insect resistance and weed compatibility of amaranth genotypes will also be presented and finally we will share our

experience with the audience on our end-user focus in two Nicaraguan women's agricultural cooperatives. The members of these cooperatives are all single mothers and manual laborers (22 women in the La Bolsa community and 20 in the La Tejana community). They implemented amaranth cultivation and developed amaranth food products adapted to traditional Nicaraguan taste.

Keywords: Amaranth, cooperatives, cultivation practice, end-users, food security, industrial use, women