ADVANCES IN BIOFORTIFICATION RESEARCH IN PANAMA

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Agricultural Research Institute of Panama (IDIAP), seeking to propose and develop alternatives to Panamanian population, had been conducting research related to development, evaluation and adaptation of crop varieties with higher nutritional values in corn (lysine and tryptophan), rice (Fe and Zn), beans (Fe and Zn), and sweet potato (beta carotene). These activities are supported by National Secretariat of Science Technology and Innovation, National Board of Nutrition, World Food Program and other national institutions. In development by this task, we had supported by AgroSalud Regional Project, well as international research centers such as CIMMYT, CIAT, CIP and EMBRAPA. The main objective of this research is that promoting the use of these varieties, we expect to improve the nutritional quality of the population so that, together with other nutritional alternatives, can reduce current levels of malnutrition in the country. As a result of this work, IDIAP had released four QPM maize synthetic varieties, which were selected in a participatory manner with farmers. The draft bio-fortified rice genotypes were assessed on-farm employees throughout the country under rainfed and puddling systems. It released four rice cultivars; these varieties are characterized by good performance in both systems and in turn had values above 3.5 and 13.0 mg/kg of Fe and Zn, respectively, in polished grain. The evidence of cooking and nutritional rice showed that these met the demands of our consumers, a fact validated by test of acceptability and sensory made with this rice. In relation to the draft bio-fortified beans, so far four lines were selected for their high content of iron between 83.1 and 93 mg/kg of iron. Sweet potato project had introduced 33 bio-fortified cultivars from the CIP. There had been numerous outreach activities (seminars, conferences and other training activities), involving over 1000 people, producers, professionals from various branches and national authorities.