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Topic: The impact of food systems on nutrition, diet and health

Title: Assessment Of Fonio As A Dietary Intervention In Northern Ghana

Presentation Type: Workshop

Ghana's quest to achieve the target set by the Millennium Development Goals (MDGs) includes effort to secure adequate food that is nutritious, safe and of high quality for all in an environmentally sustainable manner. With the growing demand of an ever-increasing human population, compounded with climate change, ecosystems and biodiversity under stress, population growth and urbanization, social conflict and extreme poverty, there has never been a more urgent time for collective action to address food and nutrition security globally. Collaborative research between agronomists and dieticians have identified varieties of indigenous crops of outstanding qualities of which fonio (*Digitaria exilis*) stand tall in terms of nutritional composition. Fonio is a small-grain, C4-metabolism cereal with a short growth cycle and it is one of the first cereal crops to have been domesticated by West African farmers. It is rich in methionine and cysteine, two most important amino acids almost deficient in the major cereals like sorghum, rice, wheat and barley.

Specific research questions were investigated through baseline assessment of nutrition and assessment of socio-cultural acceptability of fonio as strategic entry point for consumer-oriented activities. Fonio formulated diets were fed to 10 selected children from ten house-hold for a period of 6 months.

Anthropometric measurement based on height/weight index at the end the dietary intervention period indicated a significant reduction in malnutrition

with a z- score of ≤ -2 .

Cultivation and utilization of fonio should be given a national priority in Ghana