

Plenary Speech by Professor Md Solaiman Ali Fakir



Performances of Selected Underutilized Plants as Alternative Sources of Carbohydrate and Protein in Tropics and Subtropics

Major cereals (rice, wheat, and corn) rich in carbohydrates which are the staple food in many Asian and African countries could be supplemented by cheaper starch-yielding minor crops (cassava, quinoa, and buckwheat, etc.). The diet of the rural population in South Asian countries is usually deficient in quality protein. It can also be supplemented with minor plant products (beans and leaves of cassava, moringa, and sweet potato) that are enriched with balanced proteins, minerals, and other phytochemicals of various health benefits. The increasing population and rapid urbanization result in the decrease of cultivable lands in subtropical countries, including Bangladesh, which demands supplementary and cheaper sources of carbohydrates and proteins. In this perspective, some minor crops could be potential sources since they can be easily grown in the homestead and other unutilized lands which are not as competitive as lands occupied by cereals and high-value crops. Nevertheless, many neglected and underutilized species (NUS) are tolerant to abiotic stress and produce appreciable yields with little care and input. Such crops appear to be climate resilient and offer additional food and nutritional security in the regions. Our research has examined yield potential and developed product processing techniques of selected carbohydrate and protein yielding minor crops of tropical and subtropical countries.

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