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Orphan Crops and Nutrition: The Potential of Ricebean (*Vigna umbellata*) to Reduce ‘Hidden Hunger’ among Rural Women in India and Nepal

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Abstract

Among the arguments for maintenance of orphan crops as an important part of agrobiodiversity, the nutritional value and the potentials to provide food security in general and address ‘hidden hunger’ - micronutrient disorders in particular are often raised. These issues have also been a central part of the justification behind the by the EU funded Inco-Dev project FOSRIN (Food Security through Ricebean research in India and Nepal). The purpose of the paper is to document the nutritional value of ricebean and analyse how it compares to the nutritional status of women of reproductive age in four study sites in rural areas in Himachal Pradesh and Assam in India, and middle Hill areas in West and East Nepal. 800 women were involved in a 24 hour dietary recall which was carried out three times to check for seasonality. The data were analysed using WorldFood2. The study found that micronutrient deficiencies were more widespread than PEM (Protein-Energy Malnutrition). Ricebean has a good amino acid composition and is rich in several minerals compared to other grain pulses. In particular ricebean could have a potential to reduce deficiencies of calcium, potassium and iron, in addition to folate. The theoretical impact of increasing the pulse intake was shown to have substantial impact on the distribution of less severe nutrient deficiencies such as lysine, iron and some B vitamins. Due to the severity of some deficiencies such as calcium and folate, a realistic amount of ricebean would not alone be enough to bring all women above the recommended intake of these nutrients.

Keywords: Dietary recall, hidden hunger, micronutrient, orphan crops, ricebean