



A REVIEW

Nutrient management technologies of millets for increasing productivity and nutritional security

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Abstract : Millets are important source of food and livelihood in arid and semi-arid ecologies and covers a significant area in these regions due to their strong abiotic and biotic stress tolerance, particularly their capacity to withstand dry conditions. Since, the grains of these crops have better nutritional qualities compared to other cereals, therefore, to ensure nutritional security in the vulnerable regions, millets can be good option to be included as staple food. The continuous application of high analysis chemical fertilizers without organic manures resulted in reduced water holding capacity, emergence of multi-nutrient deficiencies and consequently lower crop yields. Thus, for long-term ecological and economic sustainability in rainfed millet systems, there is a need to enhance soil organic carbon and nutrient buffering capacity of soil by integrated nutrient management through increasing the use of organic sources such as farmyard manures, biocompost, biofertilizers and legumes inclusion in cropping systems. Efficient nutrient management approaches are among key strategies to realize higher yields in rainfed regions. The systematic information is lacking on nutrient management in different millets, particularly on precision nutrient management. Use of cost effective and locally available organic nutrient sources and biofertilizers in combination with chemical fertilizers, not only enhances yield and soil fertility but also improves grain quality.

Key Words : Crop nutrition, Fertilizer, millets, Nutritional security, Rainfed ecosystems

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