Quality Parameters of Hybrid Maize (Zea mays L.) as Influenced by Integrated Nutrient Management Practices

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ABSTRACT

A field experiment was conducted to evaluate the integrated use of organic and inorganic source of nutrients on quality parameters of hybrid maize during *rabi* seasons of 2008 and 2009 at the irrigated upland farm of Tamil Nadu Agricultural University, Coimbatore. The experiment was laid out in randomized block design with and ten treatments three replications . The experiment consisted of four treatments of different organic manures and their combinations *viz*.,100 per cent RDF through farmyard manure, vermicompost and poultry manure and all the combination at 1/3, 1/3, 1/3 proportion. The four treatments were integrated i.e., 50 per cent RDF through organic manures and 50 per cent RDF through inorganic fertilizers. The remaining two treatments were 100 per cent RDF through inorganic fertilizers and control (without organic and inorganic). The results revealed that significant increase in quality parameters of maize viz., crude protein, starch, reducing sugars, total sugars and amino acid content were recorded with the application of 50 per cent RDF through poultry manure + 50 per cent RDF through inorganic fertilizers. However, higher phenol content in maize grain was recorded with the application of 100 per cent RDF through vermicompost.

Key words : Integrated nutrient management, Maize, Quality.