August

Integrated Nutrient Management for Sustainable Sugarcane Production in Different Agro-ecological Zones of Bangladesh

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A field experiment was conducted to study the effects of integrated plant nutrition system (IPNS) on sugarcane yield and economic return at Ishurdi (High Ganges River Floodplain), Thakurgaon (Old Himalayan Piedmont Plain), Sreepur (Madhupur Tract) and Jaipurhat (Tista Meander Floodplain). The combined use of organic and inorganic fertiliser gave significantly higher sugarcane yield and economic benefit in all locations under study. Results revealed that average yield increase was 13.0 per cent higher for combined application of press mud/ cowdung at 12.5 tonnes per hectare along with inorganic fertilisers over use of only inorganic fertilisers in case of both MYG and HYG. In situ incorporation of dhaincha (Sesbania aculeata) as green manure increased sugarcane yield and contributed about 42-46 kg N per hectare in soil.

Keywords: Integrated nutrient, management, sugarcane, sustainable, production.