

Research Article

Nutriseed pack technique for enhancement of maize yield under drip irrigation

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Summary

A field experiment was conducted at Tamil Nadu Agricultural University, Coimbatore to investigate the effect of 'nutriseed pack' technique on yield and uptake of maize under drip irrigation during 2012-2013 in *Vertic Ustrophept* in Eastern block farm. Nutriseed pack is a small tubular assembly (20 mm diameter, 10 cm height), which contains seed at top, manure in the middle and fertilizer at bottom. The experiment consisted of eight treatments with 'nutriseed packs' with different pesticides *viz.*, carbofuran, imidachlorprid, thiomethoxim, chlorpyrifos and acepate in manure pellet, conventional surface fertilizer application and no fertilizer application (Control) which were replicated thrice in Randomized Block Design. The results revealed that 'nutriseed pack' with different pesticides registered remarkably high grain yield of maize which ranged from 6983 to 7345 kg ha⁻¹, followed by the conventional surface fertilizer application recorded moderate yield (6558 kg ha⁻¹). The highest grain yields of 7236 and 7345 kg ha⁻¹ recorded with 'nutriseed pack' containing carbofuran under horizontal and vertical placement were 10.3 and 12.0 per cent higher than conventional surface fertilizer application, respectively. Enrichment of manure pellet with pesticides tested was equally effective. Corresponding trend of results were observed in biometric observations, yield parameters and nutrient uptake. The effect of placement of 'nutriseed pack' vertically and horizontally was comparable. Practically, horizontal placement was found to be easier in field than the vertical placement.

Key words : Drip irrigation, Hybrid maize, Nutriseed pack, Placement methods, Pesticides, Nutrient uptake

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