

RESEARCH PAPER

## Growth, nutrient uptake and seed cotton yield as influenced by foliar nutrition and drip fertigation in cotton hybrid

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**Abstract :** Field experiments were carried out over two years at Agricultural College and Research Institute, Coimbatore during winter seasons of 2011-12 and 2012-13 to study the effect of drip and surface irrigation methods with foliar nutrition on nutrient uptake and growth of hybrid cotton. Treatments comprised of three levels of drip fertigation at 50 per cent, 75 per cent and 100 per cent recommended dose of fertilizer (RDF) with urea, urea phosphate and muriate of potash in combination with foliar spray of 2 per cent Di-ammonium phosphate (DAP) and 1 per cent urea phosphate. Surface irrigation with soil application of 100% RDF and drip irrigation with soil application of 100 per cent RDF using conventional fertilizers in combination with foliar nutrition of 2 per cent DAP and 1 per cent urea phosphate were also included for comparison. The highest plant height, more LAI, DMP and higher seed cotton yield of 3676 and 3521 kg ha<sup>-1</sup> during 2011-12 and 2012-13, respectively were recorded under drip fertigation with 100 per cent recommended dose of NPK and foliar spray of 1 per cent urea phosphate. Drip irrigation at 100 per cent recommended dose of NPK and foliar spray of 1 per cent urea phosphate also significantly increased the cotton growth in terms of plant height, LAI, DMP and seed cotton yield over surface irrigation with soil application of fertilizer.

Key Words: Drip fertigation, Foliar spray, Growth, Nutrient uptake, Seed cotton yield

View Point Article: Ayyadurai, P. and Manickasundaram, P. (2014). Growth, nutrient uptake and seed cotton yield as influenced by foliar nutrition and drip fertigation in cotton hybrid. *Internat. J. agric. Sci.*, 10 (1): 276-279.

Article History: Received: 29.07.2013; Revised: 21.10.2013; Accepted: 19.11.2013

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