

Effect of Tillage Methods and Nitrogen Levels on Weed Control and Nitrogen use Efficiency of *rabi* Maize

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ABSTRACT

A field experiment was conducted at the Agricultural College Farm, Bapatla to study the effect of tillage methods and nitrogen levels on weed control and nitrogen use efficiency in *rabi* maize. Results indicated that weed drymatter was lowest and highest weed control efficiency was obtained with conventional tillage with herbicides. Among nitrogen levels it was highest with 240 kg N ha⁻¹. Nitrogen uptake by grain was highest with conventional tillage with herbicides and it was on par with zero tillage with herbicides. Conventional tillage with herbicides has maximum nitrogen uptake by stover. Nitrogen uptake by grain and stover increases with increase of nitrogen level and it was highest with application of 240 kg N ha⁻¹. The maximum nitrogen use efficiency was observed in conventional tillage with herbicides (69) was followed by Zero tillage with herbicides (55) at 160 kg N ha⁻¹.

Key words : Tillage, Nitrogen use efficiency, *Rabi* Maize, Weed control.