

RESPONSE OF SUGARCANE *Saccharinum officinarum*L. TO THE PLANT GROWTH REGULATORS .

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ABSTRACT

One experiment was conducted in the farm of the General Company for Sugar in Missan during 2001 to investigate the effects of some plant growth regulators , growth , yield. experiment treatments included application at early tillering stage different concentrations of growth regulators, ethephon ,GA3, daminozide , mepiquat chloride , fluazifop –butyl , 2,4-D, mefluidide and glyphosate. The results of the present studies showed that, Performance of different growth regulators varies with their concentration and time of application 200mg/L mefluidide or 2000 mg/L ethephon applied at early sugar cane tillering stage caused significant decreases in the heights but significant increases the number of tillers, stem diameter , the number of milling stems , total stems yield and sugar yield .Application of 400 mg/L GA3 or 100mg/L glyphosate or 100 mg /L 2,4-D increased the plant heights but reducing the number of tillers , stem diameter , total stems yield and yield of sugar .