

Research Article

Effect of seaweed extracts on the yield, yield attributes and juice quality of sugarcane in coastal region of Tamil Nadu

■ N. LEINDAH DEVI AND S. MANI

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MEMBERS OF RESEARCH FORUM :**Corresponding author :**

N. LEINDAH DEVI, Department of Soil Science and Agricultural Chemistry, Tamil Nadu Agricultural University, COIMBATORE (T.N.) INDIA
Email: leindahnong@gmail.com

Co-authors :

S. MANI, Department of Soil Science and Agricultural Chemistry, Tamil Nadu Agricultural University, COIMBATORE (T.N.) INDIA

Summary

The experiment was conducted on sugarcane during 2012-13 to study the effects of foliar applications of different concentrations of seaweed extracts (prepared from *Kappaphycus alvarezii* and *Glacilaria* sp.) on yield, yield attributes and juice quality of sugarcane. The foliar spray was applied three times at 30, 75 and 110 days after planting with 2.5%, 5%, 6.5%, 7.5% and 10% concentrations of both seaweed extracts. Foliar applications of seaweed extract significantly enhanced yield, yield attributes and juice quality. The highest yield was recorded with the applications of 10% seaweed extract *Kappaphycus alvarezii* (K sap), followed by 10% seaweed extract *Glacilaria* sp (G sap) that resulted in 19.54 % and 18.07 % increases, respectively compared to the control. Seaweed extract of *Kappaphycus alvarezii* was found slightly more effective than that of *Gracilaria* sap. The maximum yield, yield attributes and juice quality was also achieved with 100 % NPK+10 % *Kappaphycus alvarezii* extract application. Thus, foliar applications of seaweed extracts could be a promising option for yield, yield attributes and juice quality enhancement of sugarcane.

Key words : Seaweed extract / sap, *Kappaphycus alvarezii*, *Glacilaria* sp., Sugarcane, Yield, Yield attributes, Juice quality

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