

# **Evaluation of Groundwater Quality for Irrigation in Eluru Division of West Godavari District, Andhra Pradesh**

**J Kiranmai, P Mohana Rao, Ch Sujani Rao and M Sree Rekha**

Department of Soil Science & Agricultural Chemistry, Agricultural College, Bapatla 522 101

## **ABSTRACT**

Good quality water helps to maintain agricultural productivity and sustain soil fertility. Agricultural activities in West Godavari depend on surface water and also on groundwater. This study was done to evaluate the status of groundwater quality and its suitability for irrigated agriculture. To achieve this objective, 236 groundwater samples from each season *i.e.* during pre monsoon and post monsoon were collected from 16 mandals of Eluru division in July and December of 2016, respectively. The water quality in the study area was estimated from different water quality parameters such as EC, pH, sodium adsorption ratio, residual sodium carbonate, and classified based on CSSRI and USSL criteria. The results showed that the sodium hazard in the groundwater samples was low. High EC and low SAR in all the area showed that the water from these sources could be used for irrigation purposes with special management.

*Key words: Boron, Ground water, Irrigation, Quality, West Godavari.*