



**RESEARCH ARTICLE :**

# Comparison of rapid methods for the extraction of bacterial DNA using scar marker for commercial liquid biofertilizer *Azospirillum lipoferum* (Az204) from TNAU

■ PASUPULETI REDDYPRIYA AND GANESAN GOPALASWAMY

**ARTICLE CHRONICLE :**

**Received :**

11.07.2017;

**Accepted :**

26.07.2017

**SUMMARY :** The increasing uses of DNA methodologies like SCAR marker to authenticate the commercial biofertiliser as a quality control requires an rapid, simple and efficient recovery of bacterial DNA from the sample. Hence, this study was made to determine which DNA extraction methods are most effective for liquid biofertilizer samples. Five routinely used nucleic acid extraction procedures were compared based upon quantity and purity of extracted DNA. The quantity of total DNA recovered by each extraction method was determined and compared. Among the five methods followed for rapid DNA extraction and strain authentication, simple boiling of cells in water gave high quality and quantity DNA and positive for Sequence characterized amplified regions (SCAR) PCR followed by TE buffer extraction. The SDS and lysozyme based methods yielded less quality DNA and are not suitable for SCAR PCR.

**KEY WORDS :**

DNA extraction,  
Polymerase chain  
reaction, Biofertilizer

**How to cite this article :** Reddypriya, Pasupuleti and Gopalaswamy, Ganesan (2017). Comparison of rapid methods for the extraction of bacterial DNA using scar marker for commercial liquid biofertilizer *Azospirillum lipoferum* (Az204) from TNAU. *Agric. Update*, 12(TECHSEAR-1) : 230-233; DOI: 10.15740/HAS/AU/12.TECHSEAR(1)2017/230-233.

**Author for correspondence :**

**PASUPULETI**

**REDDYPRIYA**

Department of

Agricultural

Microbiology, Tamil

Nadu Agricultural

University, COIMBATORE

(T.N.) INDIA

Email:reddepriya@

yahoo.com

See end of the article for  
authors' affiliations