➔DOI : 10.15740/HAS/AJBS/9.2/146-150
e ISSN-0976-8343 | ■ Visit us : *www.researchjournal.co.in*

Asian Journal of Bio Science, Volume **9** | Issue 2 | October, 2014 | 146-150
Received : 26.06.2014; **Revised :** 03.08.2014; **Accepted :** 16.08.2014

RESEARCH PAPER

Selection of influential parameters for bacteriocin production by *Lactococcus lactis* subsp. *lactis* R10 by Plackett- Burman design

P. UMAMAKESH AND K. VIJILA

Department of Agricultural Microbiology, Tamil Nadu Agricultural University,COIMBATORE (T.N.) INDIA
Email: umamakeshmicro@gmail.com

In the present study, Plackett-Burman design was applied to select influential parameters for bacteriocin production by *Lactococcus lactis* subsp. *lactis* R10, an isolate from fermented radish was investigated. Out of the eleven culture media constituents screened, six constituents namely temperature, dipotassium hydrogen phosphate, triammonium citrate, sodium acetate, yeast extract and pH were found to contribute positively to the overall bacteriocin production. Sucrose, peptone, magnesium sulphate, tween 80 and glycerol had a negative effect on bacteriocin production by *L. lactis* subsp. *lactis* R10. Thus, the statistical approach employed in this study allows for rapid identification of important culture media parameters affecting the bacteriocin production.

Key words : *Lactococcus lactis* subsp. *lactis* R10, Bacteriocin, Plackett-Burman design

How to cite this paper : Umamakesh, P. and Vijila, K. (2014). Selection of influential parameters for bacteriocin production by *Lactococcus lactis* subsp. *lactis* R10 by Plackett- Burman design. *Asian J. Bio. Sci.*, **9** (2) : 146-150.