



RESEARCH ARTICLE :

Isolation, characterization and identification of epiphytes from *Curcuma longa*

■ A. G. DESHMUKH, V. B. PATIL, S. K. KALE AND M. S. DUDHARE

ARTICLE CHRONICLE :

Received :

14.07.2017;

Accepted :

29.07.2017

KEY WORDS :

Epiphytes, *Curcuma longa*, Biochemical characterization, Identification

SUMMARY : Several herbal plants have active compounds that are believed to be influenced by the coexistence of microbes within this plant. The habitat above ground where microbes grow is called the phyllosphere and microbes that grow on the plant's surface are called epiphytes. Exploitation of beneficial properties of plant associated microbes is of great relevance at an applied level, either to increase production yields of agricultural crops, control of plants diseases or pests, adapt plant to suitable growth conditions, or in reforestation activities. In India, turmeric has been used traditionally for thousands of years as a remedy for stomach and liver ailments, as well as topically to heal sores, basically for its supposed antimicrobial property. In the case of Turmeric (*Curcuma longa* L.), the presence of rhizome is expected to provide a specialized habitat for the association of a diverse group of bacteria with potential impact on plant growth. This makes studies on isolation and characterization of bacteria from turmeric much more interesting and informative. Thus, the exploration of epiphytes associated with this plant may be helpful for agriculture purposes as biocontrol agent and plant growth promoting activities. The present is focused on isolation, characterization and identification of epiphytes from turmeric. As such three isolates were characterized morphologically, biochemically and identified with partial DNA sequencing method. They were identified and the sequence were deposited in Genebank.

How to cite this article : Deshmukh, A.G., Patil, V. B., Kale, S.K. and Dudhare, M.S. (2017). Isolation, characterization and identification of epiphytes from *Curcuma longa*. *Agric. Update*, **12** (TECHSEAR-4): 1042-1048; DOI: 10.15740/HAS/AU/12.TECHSEAR (4)2017/1042-1048.

Author for correspondence :

A.G. DESHMUKH

Nagarjun Medicinal
Plants Garden, Dr.
PanjabraoDeshmukh
Krishi Vidyapeeth,
AKOLA (M.S.) INDIA
Email: agd4in@
yahoo.com

See end of the article for
authors' affiliations