



**Tamil Nadu Agricultural University**  
Coimbatore – 641 003

Dr.M.Rajavel, Ph.D.,  
Public Relations Officer  
Mobile: 94890 56730

Phone: 0422 - 6611302  
Fax: 0422 – 2431821  
E-mail: [pro@tnau.ac.in](mailto:pro@tnau.ac.in)

To  
The Editor,  
Sir,

Date: 01.12.2025

I request that the following message may kindly be published in your esteemed daily:

**TNAU Obtains Patent for a Novel Chelated Zinc Fertilizer**

A patent entitled ‘Exo-Polysaccharide Based Chelated Zinc Fertilizer For Enhancing The Bioavailability Of Zinc In Plants’ has recently been awarded to Tamil Nadu Agricultural University by the Controller of Patents, Patent Office, Government of India with Patent Number 574341. The inventors of this patent are Dr G. Yazhini, Dr S. Thiyageshwari, Dr R. Anandham, Dr D. Selvi, Dr S. Marimuthu, A. Manikandan, and Dr L. Chithra.

The patent is the result of the Doctoral student’s research conducted at the Department of Soil Science and Agricultural Chemistry, Directorate of Natural Resource Management, TNAU, Coimbatore. The work focused on developing a first-of-its-kind chelated zinc fertiliser using the eco-friendly ligand exopolysaccharide (EPS) for sustainable agriculture. The EPS was extracted from the bacterial cell wall of *Bacillus paralicheniformis* L1C5L (MCC 0267), isolated from the rice rhizosphere in a sodic environment. This EPS can chelate zinc ions, enabling the production of a novel, eco-friendly zinc micronutrient fertiliser (Zn-EPS) containing 16.8% zinc. The Zn-EPS chelate significantly improved plant growth and yield compared to the commonly recommended  $ZnSO_4$ . The biodegradability and intrinsic chelating properties of Zn-EPS overcome the limitations of zinc availability, enhance efficient zinc delivery, and provide a sustainable, environmentally friendly alternative to synthetic chelators, thereby contributing to sustainable nutrient management. The entire patent application process, including drafting and coordination with the patent attorney to obtain this patent is managed by the Patent Cell of the School of Post Graduate Studies, TNAU under the guidance of Dr. D. Suresh Kumar. Dr. N. Natarajan, Consultant of the patent cell has coordinated the process. Dr. R. Tamil Vendhan, Acting Vice-Chancellor, has appreciated the patentees of the invention.

**Public Relations Officer**