ISSN: 2320-5407



International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-51927

Date: 28-05-2025

Title: COMPARATIVE ANALYSIS OF SOIL AND POTATO NEMATODE POPULATIONS FROM TWO AGRO-ECOLOGICAL ZONES

Recommendation:	Rating	Excel.	Good	Fair	Poor
Accept as it isYES	Originality				
Accept after minor revision Accept after major revision	Techn. Quality				
Do not accept (<i>Reasons below</i>)	Clarity				
	Significance				

Reviewer's Name: Tahir Ahmad

Reviewer's Decision about Paper:

Recommended for Publication.

Comments (Use additional pages, if required)

Reviewer's Comment / Report

Abstract Evaluation:

The abstract clearly outlines the study's objective to compare nematode diversity and distribution in two potato-growing regions of Vaishali district, Bihar. It succinctly describes the sampling strategy, nematode extraction methods, and identification approach, providing sufficient technical detail. The differentiation between plant-parasitic and free-living nematodes is well articulated, along with the ecological and agricultural relevance of each group. The mention of Meloidogyne spp. dominance in Lalganj and the higher free-living nematode diversity in Mahnar effectively summarizes key findings. The conclusion emphasizes practical implications by advocating integrated nematode management for sustainable potato cultivation.

Content and Structure:

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

- The abstract is well-structured, moving logically from background and methodology to results and implications.
- The inclusion of specific nematode genera enhances the scientific precision and relevance for readers in nematology and agricultural sciences.
- The contrast between the two agro-ecological zones is clearly established, highlighting differences in nematode communities and soil health indicators.
- The ecological roles of free-living nematodes are noted, providing insight into their importance beyond parasitism.

Scientific and Practical Relevance:

- The study addresses a critical aspect of potato cultivation—nematode infestation and soil biodiversity—that directly impacts crop productivity and sustainability.
- The identification of region-specific nematode populations supports targeted management approaches.
- Emphasis on integrated nematode management (INM) aligns with contemporary sustainable agriculture goals, making the findings applicable for extension services and policy.

Technical Merit:

- Use of established extraction and identification methods (Cobb's and Baermann funnel) ensures reliability of nematode detection.
- Morphological identification provides a solid baseline for biodiversity assessment.
- The comparative approach adds value by contextualizing nematode populations within specific agro-ecological zones.

Overall Assessment:

The abstract provides a comprehensive and clear summary of the study's rationale, methods, findings, and implications. It effectively communicates the importance of nematode diversity in potato agroecosystems and underscores the necessity for integrated management strategies. The language is precise and accessible to researchers and practitioners interested in nematology, plant pathology, and sustainable agriculture.