

REVIEWER'S REPORT

Manuscript No.: JNAVES-023

Title: Precision Agriculture and Artificial Intelligence for Sustainable Crop Production: A Review of Emerging Technologies and Future Applications.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity	✓			
Significance	✓			

Reviewer Id: JPR-147

Reviewer's Comment for Publication.

The manuscript presents a timely and comprehensive review of the application of Precision Agriculture (PA) and Artificial Intelligence (AI) in sustainable crop production. The topic is highly relevant to modern agricultural development and addresses critical challenges related to food security, resource efficiency, and environmental sustainability. The manuscript is well organized, clearly written, and provides a broad overview of key technologies including GPS, GIS, remote sensing, machine learning, computer vision, Internet of Things (IoT), drones, and variable rate technologies. The discussion effectively highlights the potential of integrating AI-driven solutions with precision farming systems to improve agricultural productivity and sustainability.

Several minor revisions are recommended to further strengthen the manuscript. The authors should include more recent studies and practical case examples demonstrating successful implementation of AI and precision agriculture technologies in different agricultural systems. The discussion on challenges and constraints could be expanded to address issues related to data privacy, cybersecurity, technology accessibility, and adoption barriers in developing countries. Additionally, the future trends section would benefit from a more critical evaluation of emerging technologies and their potential limitations. The reference list should be reviewed for completeness, consistency, and compliance with the journal's citation style. Minor language editing and proofreading are also suggested to improve overall readability.

Overall, the manuscript makes a valuable contribution to the growing body of literature on smart agriculture and sustainable crop production. Subject to the incorporation of the suggested minor revisions, the manuscript is recommended for publication.