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Asnawi, A.L., Muslimin, J., Naim, M., Hisham, B.

Performance evaluation of active canopy sensor towards a wireless variable-rate fertilizer application system in paddy production (2020) *International Journal of Advanced Trends in Computer Science and Engineering*, 9 (1.1 Special Issue), art. no. 69, pp. 418-424.

DOI: 10.30534/ijatcse/2020/6991.12020

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Abstract

The performance of a crop canopy sensor measuring crop response to nitrogen variation of a local paddy variety, Siraj 297, was evaluated. Data for various crop parameters was taken before every fertilizer treatment application. The results show that the sensor was not able to distinguish the crop response to different fertilizer treatments in the early stages of crop growth. In the panicle initiation and booting stages (50 DAT and 70 DAT), the sensor showed better performance in the red edge and NIR spectral bands. A linear response was also observed for NDVI and NDRE indices. The results from this work will be used to develop a suitable mathematical model for a variable rate fertilizer application system. © 2020, World Academy of Research in Science and Engineering. All rights reserved.

Author Keywords

Active spectral sensor; Fertilizer management; Paddy production; Precision farming; Variable rate technology

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Publisher: World Academy of Research in Science and Engineering

ISSN: 22783091

Language of Original Document: English

Abbreviated Source Title: Int. J. Adv. Trends Comput. Sci. Eng.

2-s2.0-85082178782

Document Type: Article

Publication Stage: Final

Source: Scopus