DROUGHT TOLERANCE OF SPECIAL QUALITY RICE APPLIED WITH PACLOBUTRAZOL

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BIOGRAPHICAL SKETCH

The author, Rommel Dacca Wamil lives at Palusapis Science City of Muñoz, Nueva Ecija. He was born on the 2nd day of July 1999. He is the eldest among four children of Mr. Romeo A. Wamil and Mrs. Yolanda D. Wamil.

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ABSTRACT

WAMIL, ROMMEL D. Department of Crop Science, College of Agriculture, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **June 2019, DROUGHT TOLERANCE OF SPECIAL QUALITY RICE APPLIED WITH PACLOBUTRAZOL**

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The study was conducted with the general objective of evaluating the effects of different concentrations of PBZ on the growth, water use and grain yield of two special quality rice varieties (NSIC Rc216 and Dinorado) under drought stress condition.

The result showed that PBZ generally improved tiller and panicle number which is supported by correlation analysis with moderate and strong relationships, respectively. Among root parameters evaluated, only lateral roots showed positive moderate relationship with PBZ indicating PBZ has the potential of improving this root parameter which is considered as key root trait under drought condition. Moreover, tiller number and root parameters showed weak to very weak relationships to grain yield and water use. Thus, the targeted parameters or traits (tiller number and root parameters) did not contribute to better performance of NSIC Rc216 and Dinorado under contrasting water regimes. Lastly, PBZ showed different effects on grain yield of two rice ecotypes wherein positive effects for newly released modern variety (NSIC Rc216) but negative effect on traditional variety (Dinorado). This indicates that different rice varieties require different levels of PBZ; thus, it is recommended to conduct another study using different traditional and modern rice varieties under field condition.

Keywords: Paclobutrazol, tiller number, lateral roots, grain yield

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