RESPONSES OF THREE *Cyperus rotundus* L. (PURPLE NUTSEDGE) ECOTYPES TO DIFFERENT HERBICIDES

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ACCEPTANCE SHEET

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BIOGRAPHICAL SKETCH

The author was born on December 31, 1998 in Science City of Munoz, Nueva Ecija. He is currently living in Barangay Linglingay, Science City of Munoz, Nueva Ecija. He is the eldest among three children of Albert Dela Cruz and Loribeth Dela Cruz.

He completed his elementary education in Linglingay Elementary School and Secondary education in Munoz National High School-Annex. He pursued to continue his study at Central Luzon State University with the course of Bachelor of Science in Agriculture major in Crop Protection specializing in Weed Science.

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ABSTRACT

DELA CRUZ, KENNEDY B., Department of Crop Protection, College of Agriculture, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **September 2019**, **RESPONSES OF THREE *Cyperus rotundus* L. (PURPLE NUTSEDGE) ECOTYPES TO DIFFERENT HERBICIDES**

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C. rotundus L. has been described as the world's most noxious and persistent colony-forming weed, seriously impacting agro-ecosystems in multiple regions of the globe. The extensive underground system is a key feature in the success of this species, and a major obstacle to its effective control. An experiment was conducted from March to June 2019 at the screen house of Crop Protection Division, Philippine Rice Research Institute, Maligaya, Science City of Muñoz, Nueva Ecija to (a) determine the responses of the three ecotypes of *C. rotudus* L. to different herbicides and (b) determine the best herbicide that can control the growth and reproduction of lowland ecotype *C. rotundus* L.

Tubers of *C. rotundus* L. in irrigated rice field; rain fed rice field and rice-onion field were collected in La Purisima, Aliaga; Mapangpang, Lupao; and Abar 2nd, San Jose City, respectively then pre-germinated to Crop Protection Division, PhilRice. The experiment was established on Randomized Complete Block Design with 3 replicate having untreated, Pendimethaline, Pyribenzoxim + cyhalofop butyl, Bispyribac sodium, MCPA and 2,4-D Amine salt as treatment and Abar 2nd, San Jose City, Mapangpang, Lupao and La Purisma, Aliaga as the ecotype factor. Results showed that Pendimethaline was not effective to control the *C. rotundus* L. while Bispyribac sodium, MCPA and 2,4-D Amine salt effectively control the different ecotype of *C. rotundus* L.

Keyword: Purple nutsedge (*C. rotundus* L.); herbicides; ecotype

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