

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

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An Undergraduate Thesis Submitted to the Faculty of the Department of Crop  
Protection, College of Agriculture, Central Luzon State University,  
Science City of Munoz, Nueva Ecija, Philippines  
In Partial Fulfillment of the Requirement  
For the Degree of

**BACHELOR OF SCIENCE IN AGRICULTURE  
(Crop Protection – Weed Science)**

**SEPTEMBER 2019**

ACCEPTANCE SHEET


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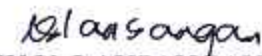
  
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## **BIOGRAPHICAL SKETCH**

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## ACKNOWLEDGMENT

The author to convey his warmest gratitude and sincerest appreciation to those persons who have paved the way to make the study possible. In particular they were the following:

Grateful acknowledgement to Prof. Celynne O. Padilla, his adviser for writing supervision, advice, valuable comments and always uttering words of encouragement during the start of the study until it was finished.

Sincerest thanks to Mr. Dindo King Donayre, his advice, supervision, help, and support valuable knowledge that he share and wonderful words of encouragement while conducting the study until it was finished

Gratifying thanks to Prof Ronaldo T. Alberto, his critic for valuable comments, suggestion and correction that greatly contribute to the degree for the completion of the study. To all the faculty member of the Department of Crop Protection, to Dr. Marita S. Labe and Dr. Ronaldo T. Alberto for allowing him to conduct the study. And also to Ate Sheng, for providing the material needed by the author.

Extraordinary thanks to all his friends, Adamson, Jayvee, Raymart, Kaiser, Rosa Mia, Limmuel, Rogelio, Ronalyn, Mary Jane, Marvin, Jovelyn, Ella Mae, Jessa and his Pest Management Society for the support, showing affection and help during the conduct of the study and happy moments they have shared together.

Special thanks to the love of his life, Pauline Joy Ancheta, her support, care and love during the start until it was finished was huge help ease the study.

To PhilRice that provide support for the conducting of the study.

Endless thanks to his beloved parents, Albert Dela Cruz and Loribeth Dela Cruz for their unconditional love, support, prayers, sacrifices, understanding, patience, guidance for financial and moral support, word of encouragement and for the strength and inspiration they've given. And to his brother and little sister John Kyle Dela Cruz and Kimberlyn Kate Dela Cruz for the support and help.

Above all, to Almighty God for his endless, love, guidance, blessing and for giving wisdom, strength and hope to withstand all the challenges and struggle that he encountered on it way.

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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**

Adviser: CELYNNE O. PADILLA M.Sc.

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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. rotundus* 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 2<sup>nd</sup>, 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 2<sup>nd</sup>, 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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