

**RESPONSES OF DIFFERENT FRAGMENTS OF LOWLAND
ECOTYPE (*Cyperus rotundus* L.) TO EARLY
AND LATE FLOODING**

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BIOGRAPHICAL SKETCH

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ABSTRACT

QUELIZA, RAYMART JOHN S., Department of Crop Protection, College of Agriculture, Central Luzon State University, Science City of Munoz, Nueva Ecija, Philippines, **September 2019, RESPONSES OF DIFFERENT FRAGMENTS OF LOWLAND ECOTYPE PURPLE NUTSEDGE (*Cyperus rotundus* L.) ON EARLY AND LATE FLOODING**

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C. rotundus L. is one of the most dominant weeds in many field and vegetable crops due to its unique biological and physiological properties. Mainly, *C. rotundus* thrives well under upland condition however some reports say *C. rotundus* able to adapt such flooded condition. 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 Munoz, Nueva Ecija to (a) determine the responses of different fragments of Lowland ecotype *C. rotundus* on early and late flooding and (b) determined the best timing of flooding that can inhibit the growth and succession of lowland ecotype *C. rotundus*.

Tubers of lowland ecotype were collected from Aliaga Nueva Ecija. Collected tubers were cut into fragments (B1- whole tuber, B2- ½ tuber, B3- 1/3 tuber, B4- ¼ tuber) then pre-germinate to Philippine Rice Research Institute, Maligay, Science City of Munoz, Nueva Ecija. The experiment was established following a two-way factorial Randomized Complete Block Design with 3 replications having early and late flooding. Growth parameters of *C. rotundus* were gathered and analyzed through analysis of variance using STAR 2013. Results showed that the main effect of flooding significantly

affected the growth and development of *C. rotundus*. Early flooding showed suppression effect than late flooding. All fragments did not produced shoots when flooded all throughout from 0 to 50 DAP while all fragments can produced under saturated condition. The results of this study proved that the early the flooding is given, succession of *C. rotundus* will lessen.

Keywords: Purple nutsedge (*Cyperus rotundus*); lowland ecotype; early and late flooding

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