IDENTIFICATION OF FUNGUS CAUSING LEAF BLIGHT OF KNOT GRASS, *Paspalum distichum* L., A WEED OF RICE

MELODY S. GANTE

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BACHELOR OF SCIENCE IN AGRICULTURE
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ACCEPTANCE SHEET

This undergraduate thesis manuscript entitled **"IDENTIFICATION OF FUNGUS CAUSING LEAF BLIGHT OF *Paspalum distichum* L., KNOT GRASS, A WEED OF RICE"**, prepared and submitted by **MELODY S. GANTE,** in partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN AGRICULTURE (CROP PROTECTION-Plant Pathology),** is hereby accepted:

CELYNNE O. PADILLA, M.Sc.
Adviser
22 Jan 2020
Date Signed

DINDO KING M. DONAYRE
Co-Adviser
Date Signed

RONALDO T. ALBERTO, Ph. D.
Critic
1/23/20
Date Signed

CELYNNE O. PADILLA, M.Sc.
Department Research Coordinator
22 Jan 2020
Date Signed

Accepted as partial fulfillment of the requirements for the degree of **BACHELOR OF SCIENCE IN AGRICULTURE (CROP PROTECTION-Plant Pathology):**

RONALDO T. ALBERTO, Ph. D.
Chair, Department of Crop Protection
1/23/20
Date Signed

MARIA LUISA MASON, Ph. D.
College Research Coordinator
1-23-2020
Date Signed

ARIEL G. MACTAL, Ph. D.
Dean, College of Agriculture
Jan 23, 2020
Date Signed

BIOGRAPHICAL SKETCH

The author, Melody S. Gante was born on the 4th day of February of 1997 at their hometown in Barangay Bagumbayan, Llanera, Nueva Ecija. She is the youngest among the two siblings of Mr. Eddie Gante and Mrs. Ma. Felomena Gante. She has a sister namely Romina Gante. She has a husband known as Arson Ariola and daughter namely Amaruz Ariola.

She was born in a poor family. Her father and mother were both farmer. She got married at 21. Her husband work as messenger in BanKo. Her child is growing older, and have more needs daily. This is the reason why the author is so determined to finish her college degree so as not to experience the hard life, to give bright future for her child and to prove to others that being a mom is not an excuse to finish what you started.

She finished her primary and intermediate education at Llanera Central School and her secondary education in 2013 at Llanera National High School. She graduated vocational courses such as housekeeping and food and beverages at MKS, San Jose City in 2017 and hilot wellness massage at Innovative. She pursued her tertiary education at the Central Luzon State University (CLSU), a globally competitive university with the degree of Bachelor of Science in Agriculture and later on she decided to major in Crop Protection and choose Plant Pathology as her field of specialization.

In 2018, the hardship of being a student mom hurdled in her college life;she started to have different part time job to fulfill the needs of her child while studying. Many failures came to her life mostly in her study. She accomplished nothing; everything was failure for her.

Until her husband reminded her, "If you don't have priority, you will never succeed in what you are doing, although you are doing your best," and she made up her mind to choose and prioritize her study for her family. Now she learned that "failure doesn't mean I'm a failure. It does mean I haven't succeeded yet"..

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ABSTRACT

GANTE, MELODY S., Department of Crop Protection, College of Agriculture, Central Luzon State University, Nueva Ecija, Science City of Muñoz, **January 2020**, **IDENTIFICATION OF FUNGUS CAUSING LEAF BLIGHT OF KNOT GRASS, *Paspalum distichum* L., A WEED OF RICE.**

Adviser: CELYNNE O. PADILLA, M.Sc.
Co-Adviser: DINDO KING M. DONAYRE

The study was conducted to identify and characterize the fungus causing leaf blight disease of *P. distichum*, determine the potential of the causal fungus as biological control against *P. distichum* at different ages and determine the best concentration of the identified fungus effective against *P. distichum.* Gathered data were subjected to ANOVA while treatment means were compared using LSD at 5% level using STAR 2013.

Fungus causing leaf blight was identified as *Fusarium* sp. Symptom exist as tiny black spots on tips of the leaves and become brown to black as it gets older. Percentage of infection at different ages of knot grass showed highly significant among the treatments and most percentage of incidence was recorded at 10 DAP (7 DAI). From 3 to 7 DAI, the highest number of lesions was gathered at 40 DAP (6.2) and lowest at 20 DAP (1.8) was observed. Size of lesions showed highly significant on day 6 to 7 which 20 DAP exhibited the most number of lesions (6 DAI) with 77.0 and 100.5 (7 DAI). Severity of blight disease was mostly exhibited at the youngest age (10) at 5 to 7 DAI with 30.2 % , 44.7 % and 61.8 % severity, respectively. Different amount of concentrations sprayed with knot grass showed highly significant in 7 DAI and the best concentration of *Fusarium* sp. to control knot grass was $1x10^7$ spores/ml.

Keywords: inoculation; grid method; *Paspalum distichum* L.. ; *Fusarium* sp.

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