PERFORMANCE OF DIFFERENT LINES WITHIN VARIETIES OF SUNFLOWER INTRODUCED FROM DIFFERENT COUNTRIES UNDER CLSU CONDITIONS

by

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Thesis Presented to the Faculty of the Graduate Studies and Research of the Central Luzon State University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Agriculture

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

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To them this humble work is affectionately dedicated.

PERFORMANCE OF DIFFERENT LINES WITHIN VARIETIES OF SUNFLOWER INTRODUCED FROM DIFFERENT COUNTRIES UNDER CLSU CONDITIONS[1]

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ABSTRACT

Results of the study disclosed considerable variability among entries within some of the groups on many important agronomic variables taken into consideration. These characteristics included among others height at flowering and at maturity, number of leaves per plant, size of flower head, weight of filled seeds per head and weight of filled seeds and percentage sterility, size of seed, ratio of kernel to hull. The variety Mingren from Taiwan was found to possess a number of desirable characters.

Similarly, the same variety, Mingren (Taiwan) registered the highest numerical yield of seeds. Variety Commander from USA and USDA as well as Peredovik from Israel ranked second insofar as their potentials and yielding ability compared to the rest of the varieties in their respective group are concerned. However, these varieties did not show any notable statistical edge over the other.

INTRODUCTION

Sunflower (Helianthus annuus L) has been recently introduced as a commercial oil crop in the Philippines.

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It is a known fact that the oil derived from sunflower among its other characteristics is high in polyunsaturates, thus rendering it almost cholesterol free.

Aside from the oil, the by-products such as the meal is found to be high in protein which makes itself excellent as a condiment for confectioneries for human consumption as well as an animal feed concentrate.

Furthermore, the leaves and stalks have potentials as a forage crop for livestock.

From the aforementioned uses of sunflower, it can not be denied that it is another crop which can serve the human race against its fight for hunger and malnutrition.

Since sunflower is a new crop in the Philippines, its potentialities, cultural requirements and response to the present economic needs are not yet known. It is therefore imperative that a study on the performance of several varieties found promising in other countries be made under Philippine conditions with the aim in view of ultimately selecting lines or varieties per se for commercial production. It is also felt that in this study, lines can be segregated and tested which can very well serve as genetic stocks for breeding purposes.

Preliminary screenings of introduced varieties done at the Central Luzon State University in Muñoz, Nueva Ecija

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