

**COMPREHENSIVE SEMESTRAL REPORT OF THE FIELD PRACTICE AT  
THE PHILIPPINE-SINO CENTER FOR AGRICULTURAL TECHNOLOGY  
(PhilSCAT)**

**ELLEN GRACE D. NALUPA**

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## ABSTRACT

**NALUPA, ELLEN GRACE D.**, Bachelor of Science in Agricultural and Biosystems Engineering, Central Luzon State University, Science City of Muñoz, Nueva Ecija, **JUNE 2023, COMPREHENSIVE SEMESTRAL REPORT OF THE FIELD PRACTICE AT THE PHILIPPINE-SINO CENTER FOR AGRICULTURAL TECHNOLOGY (PhilSCAT)**

Adviser: **ENGR. GLORIA N. RAMOS**

The value of field practice programs cannot be overstated, as they provide valuable opportunities for students to bridge the gap between theoretical knowledge and practical application. These programs offer hands-on experiences in real-world settings, allowing students to gain practical skills, enhance their understanding of their field of study, and prepare for future careers.

The field practice mainly focused on the performance evaluation and analysis of the complete rice milling machine model MTP-30B. Rice milling plays a significant role in the agricultural industry of the Philippines, as the country is one of the largest producers and consumers of rice in the world. Rice milling refers to the process of removing the outer husk, bran, and germ from paddy rice to produce polished rice that is ready for consumption. The weight of the initial paddy input was 324 kilograms (6 cavans), and the weight of the output milled rice was 318.40 kilograms. The calculated machine efficiency of the rice mill was 74.12%. The percentage of the head rice for every 100-gram sample was calculated as 59.27%, and the mean average percentage of the broken rice is 38.29%. The testing was conducted using a single rice variety, the NSIC RC-702H.

Other activities were done during the stay at the center, and during that period, machine operation and familiarization were mostly done. Machine operation and familiarization are of great importance for agricultural engineers. Agricultural engineers are responsible for designing, developing, and optimizing agricultural machinery and equipment. To effectively perform these tasks, they need to have hands-on experience and a deep understanding of the machines they work with. By becoming skilled machine operators, agricultural engineers can ensure that equipment is operated efficiently, maximizing productivity and minimizing downtime. Machine operation and familiarization are vital for agricultural engineers to enhance their technical skills, make informed equipment-related decisions, troubleshoot issues, and ensure safety. This practical knowledge enables them to contribute significantly to the agricultural sector and improve overall efficiency and productivity in farming operations.

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