

**DEVELOPMENT OF COLLAPSIBLE SHADE STRUCTURE FOR THE  
GROWTH AND YIELD OF PECHAY (*Brassica napus L.*)**

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## ABSTRACT

**ANTONIO, ARIEL V.**, Department of Agricultural and Biosystems Engineering, College of Engineering, Central Luzon State University, Science City of Muñoz, Nueva Ecija, Philippines, **June 2023, DEVELOPMENT OF COLLAPSIBLE SHADE STRUCTURE FOR THE GROWTH AND YIELD OF PECHAY (*Brassica napus L.*)**

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A collapsible shade structure is a structure that can be assembled and disassembled with ease. It is intended to provide protection against the sun, rain, pest and other elements. The structure has a frame made of folding pieces that can be easily put away when not in use. A shade net is provided to cover the frame. This study aims to investigate the impact of shade structure on the growth and yield performance of pechay. The study was used different level of shading; direct sunlight, 30% level of shading and 50% shading. The layout of the experiment followed the randomization in Completely Randomized Design (CRD), three treatments were used with three replications. Comparison among means was done using Least Significant Difference (LSD) at a significance level of 5% and STAR application was used to analyse the given set of data. The results showed that the 30% level of shading has a significant effect on pechay such as height, number of leaves, leaf area, and weight. For the quality of pechay, 50% level of shading provided the best result since it has a small hole on the net, the pest is not easily to penetrate inside. Direct sunlight has the lowest quality of pechay because it has no protection in pest and sunlight. The 30% level shading is on the middle since the hole on the net is quite large compare to 50% shading, it can protect the pechay from pest completely.

Keywords: collapsible shade structure; shading; pechay; growth and yield

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