

**HARVEST AND POSTHARVEST PROCESS ENGINEERING TO
MINIMIZE FOOD LOSS OF BROCCOLI COMMODITY IN THE
BRAKSENG AREA OF SUMBER BRANTAS**

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Abstract

Food loss is food waste that comes from foodstuffs such as vegetables, fruits or foods that are still raw but cannot be processed into food and end up being thrown away just like that it does not even reach the stage of sales and becomes a problem for most countries and does not only occur in developing countries or poor countries, but this can also happen to developed countries even though the number of cases is not as many as in developing countries. Design Thinking is a collaborative method that gathers many ideas from disciplines to obtain a solution. Design thinking not only focuses on what is seen and felt, but also focuses on the user experience. The research was conducted in the horticultural commodity broccoli in the Brakseng area, Sumber Brantas for the minimization of Food loss using the Design Thinking method sera to design the harvest and post-harvest process for the broccoli harvest. Based on the results of the study, it was found that the value of Food loss was 20% to 25% in the distribution process using the L300 car. Food loss appears in the distribution process due to the pedestal of the load and friction between the loads, causing the broccoli to be damaged. The implementation of improvements is carried out by applying harvesting and post-harvest process engineering to minimize damaged yields by adding activities that farmers had not previously carried out in the harvesting process and designing tools for the postharvest process. The implementation process produces a fairly good value, from the beginning Food loss appears at a value of 20% to 25% with the engineering of the harvest process and the postharvest is expected to reduce Food loss by up to 3%.

Keywords: *design thinking, food loss, horticulture*