



<b>Research Title</b>	The Coconut Stalk Sharpening and Cutting Tool
<b>Researcher</b>	Miss Sukanya Sriwiboon and et al
<b>Organization</b>	Songkhla Vocational college
<b>Year</b>	2016

### ABSTRACT

The objectives of this innovation “**The Coconut Stalk Sharpening and Cutting Tool**” are to find out the most congruent tool for sharpening, smoothing and cutting the coconut stalk and to study the efficiency of the invented tool over knife in terms of sharpening, smoothing and cutting the coconut stalk. The study is divided into three steps. 1) To study the principle of the knife in terms of sharpening, smoothing and cutting the coconut stalk. 2) To design the tool to be invented. 3) To study the efficiency of the tool over knife. For this study, we randomly selected 20 second-year diploma students of food and nutrition department from Songkhla Vocational College. The participants were divided into two groups with equal number of students, controlled group with knife as a tool and experiment group with invented tool respectively to compare the efficiency of the tool.

The results of the study reveal the followings :

1) In order to find out the principle and the ways how knife is used to make pins from coconut stalk. We start cutting the coconut leaflet from the top and separated midrib from the leaflets. We took the leaflets and used it for weaving basket and the separated coconut stalks are cut into small pins to clasp the desserts’ wrappers.

2) We invented the tool with two holes, a big and small one, big one is used to insert the coconut leaflets to separate it from midrib; small one is used to insert separated midribs to smoothen it, and then it is cut into small size and length as desired.

3) To study the efficiency of the tool. We compare the time taken by the tool and knife to make a single pin from coconut stalk by taking size and length into account, it was found that the tool and knife can produce one pin of coconut midrib at 24.80 seconds and 48.40 seconds respectively. For the reliability of the result, it was further analyzed by using *t-test* to find out whether there is any significant



difference between the time taken by the tool and knife to get a single midrib pin from the coconut leaflets. The value of the t-test was 24.37 showing significant difference of  $\alpha$  0.01. Therefore, the finding shows that the time consumed by the tool was 50.80 percent faster than that of knife to produce a single pin of coconut stalk.