ABSTRACT

Samrong, *Sterculia lychnophora,* was a commonly found in Thailand. Its amazing water holding capacity leads researchers to believe that the hydrocolloid was presented in the seed. However, the report on this species is limited. In this project, the objectives were to study a possible method to extract crude hydrocolloid from Samrong seed and the study of extracted powder viscosity quality.

The research was started to ground seed as a powder, then boiled in water for three hours. The swollen mucilage was collected and soaked with 0.5 M NaOH solution for one hour. The crude gum was precipitated by ethyl alcohol, then dried in an oven and ground into powder of crude Samrong gum.

In order to evaluate the quality of crude gum, it was tested by many parameters for viscosity adjusted as a guideline. Dried powder was dispersed in various conditions (pH, salt, temperature and mixing method) for determination of flow rate as viscosity characteristics.

The result was shown that the percent yield of extracted powder could be increased from 1.99 % (w/w) to 38 ~ 40 % (w/w) of Samrong powder by the final extraction method. It was required the heating step in the extraction method to gain the hydrocolloid powder that would thicken in distilled water. The volumetric flow rate also achieved to 0.05 ml /sec.