

## ABSTRAK

Gadung (*Dioscore hispida* Dennst) is one of the tubers which contains high carbohydrates and contains cyanide which can cause poisoning to death. Cyanide is one of the compounds that is toxic and is widely found in plants as cyanogenic glucoside. Cyanide content can be minimized by boiling based on the nature of cyanide which is easily soluble in water and volatile. People also often process gadung by boiling it with the addition of salt to the tuber. The method used in cyanide analysis involving a spectrophotometer based on color formation is the picric acid method and the ninhydrin method. This study aimed to determine the differences in cyanide levels of fresh gadung tubers and after boiling with salt for 15 minutes using the picric acid and ninhydrin method.

This research was experimental and was carried out in the Health Analyst Laboratory of the Surabaya Analyst and the Institute of Tropical Medicine Campus C UNAIR Surabaya in January - June 2019. The instrument used is a spectrophotometer with a wavelength of 510 nm and 522 nm.

Based on the results of research with two methods of picric acid and ninhydrin, a decrease in cyanide levels was obtained after boiling up to 0.418 ppm and 0.671 ppm. The picric acid method has a better validation value compared to the ninhydrin method, so the picric acid method is more suitable for cyanide analysis.

**Keywords:** *Cyanide Levels, Picric Acid Method, Ninhydrin Method, Gadgets (Dioscore hispida Dennst)*