Agriculture waste such as Sago Waste (SW) has a potential to cause pollution when the waste is discarded into rivers. In order to add value to SW, a study was conducted to produce potassium and calcium hydroxide, compost and Humic Acid (HA) from SW. Approach: The SW was air-dried and some grinded. The grinded SW was incinerated at 600°C. Potassium and calcium hydroxide was extracted by dissolving the ash in distilled water at a ratio of 1:500 (ash: water), equilibrated for 24 h at 150 rpm using a mechanical shaker and filtered. The ungrinded SW was used for compost production. The compost was produced by mixing SW (80%) + chicken feed (10%) + chicken dung slurry (5%) + molasses (5%). Results: The hydroxide extracted from ash of SW was used to isolate HA of composted SW. The molarity and pH of the hydroxide were 0.002M and 10 respectively. Calcium (42.88 mg kg⁻¹) and potassium (29.51 mg kg⁻¹) content were high in the hydroxide compared with other elements. The compost took about 60 days to mature. There was an increased in pH, ash, Cation Exchange Capacity (CEC) and HA and a decreased in temperature, C/N ratio, C/P ratio and organic matter. The hydroxide was able to extract 1% of HA from the composted SW. A comparison between the yields of HA extracted from the composted SW using the hydroxide of the SW and that of the analytical grade showed no statistically difference. The chemical characteristics of HA from the composted SW were in standard range. Conclusion: Potassium and calcium hydroxide, compost and HA can be produced from sago waste. Low morality of the hydroxide is able to produce good quality of HA from composted sago waste. The HA can be reconstituted with K and Ca from potassium and calcium hydroxide to produce K-Ca-humate and this needs to be investigated as a form of organic based fertilizer.

**Keyword:** Sago Waste (SW); Humic Acids (HA); Hydroxide; Compost