Starch is a carbohydrate of great importance in various industrial sectors. The yam is a tuber that can constitute a promising source of starch. With the purpose to evaluate the effect of concentration of NaOH solution on purity and the income practical of the extraction of the starch yam Dioscorea alata, tubers of yam were peeled, clean and triturated with a solution of NaOH in 1:2 (weight yam: solution weight). The concentrations of the solutions were 0.01, 0.03 and 0.05 eq.L$^{-1}$. The supernatant was discarded and the precipitate was resuspended in distilled water for several times until all the present mucilage in the suspension was removed. The starches were dried in an air circulation oven at 50 °C for 24 hours. It was calculated water content, the income practical of the extraction and purity of starch for each procedure. The water content of the starches at the end of drying were 8.00, 7.96 and 8.02% (w.b.) for the extraction with solutions of NaOH 0.01, 0.03 and 0.05 eq.L$^{-1}$, respectively. With respect to income practical and extraction and purity of starch, the values were 9.87, 9.21 and 8.02% and 94.80, 93.66 and 96.15% of starch, to the processes performed with solutions of NaOH 0.01, 0.03 and 0.05 eq.L$^{-1}$, respectively. The treatments with different concentrations of NaOH do not showed significant difference to the income practical of the extraction and purity of the yam starches.