

The paper represents a study carried on concentration of silicon in parts of three varieties of watermelons namely the Charleston grey (sugar Fl), Crimson sweet (Zebra) and the Sugar baby. Watermelons were obtained from Githurai and Mwea markets in Kenya from different vendors for a period of 12 months. AAS instrument technique was used for qualitative and quantitative analysis of silicon in different parts of a watermelon. A one way ANOVA and the student t-test were used to determine the variation in levels of silicon: different parts and varieties of watermelon and variation between the levels of silicon in the two markets respectively. The mean levels obtained in this study in the four parts of the three varieties were 0.66 ± 0.04 , 0.81 ± 0.06 mg Si.